



With the support of the
Erasmus+ Programme
of the European Union



SHS Web of Conferences

Volume 99 (2021)

International Scientific Conference

“Delivering Impact in Higher Education Learning and Teaching: Enhancing Cross-Boarder Collaborations” (DIHELT 2021)

Ekaterinburg, Russia, April 6-9, 2021

M. Vidrevich (Ed.)

SHS Web of Conferences

Volume 99 (2021)

International Scientific Conference “Delivering Impact in Higher Education Learning and Teaching: Enhancing Cross-Boarder Collaborations” (DIHELT 2021)

Ekaterinburg, Russia, April 6-9, 2021

M. Vidrevich (Ed.)

<https://www.shs-conferences.org/articles/shsconf/abs/2021/10/contents/contents.html>

Preface - Proceedings of the International Conference “Delivering impact in higher education leaning and teaching: Enhancing cross-boarder collaborations”

Holger Kusse

SHS Web Conf., 99 (2021) 00001

DOI: <https://doi.org/10.1051/shsconf/20219900001>

The linguistic landscape of the coronavirus crisis in foreign language didactics by using the example of German

Holger Kuße

SHS Web Conf., 99 (2021) 01001

DOI: <https://doi.org/10.1051/shsconf/20219901001>

A Case Study of Adopting European Experience of Office Hours to Improve Off-class Instructor-student Interaction in Private Universities in China

Shaoying Wu

SHS Web Conf., 99 (2021) 01002

DOI: <https://doi.org/10.1051/shsconf/20219901002>

Application of Case Study Method in Teaching Students Specialized in Economics

Tatyana Panteleeva, Elena Tikhonova and Alexander Boykov

SHS Web Conf., 99 (2021) 01003

DOI: <https://doi.org/10.1051/shsconf/20219901003>

Benchmarking of University teachers' professional development: successful European, Chinese, and Russian practices

Tatiana Tregubova
SHS Web Conf., 99 (2021) 01004
DOI: <https://doi.org/10.1051/shsconf/20219901004>

Blended Learning Practices in Russian Higher Education: Benefits, Challenges, Perspectives

Marina Nikiforova
SHS Web Conf., 99 (2021) 01005
DOI: <https://doi.org/10.1051/shsconf/20219901005>

Case-based teaching research of media management course

Yan Zhang and Heping Li
SHS Web Conf., 99 (2021) 01006
DOI: <https://doi.org/10.1051/shsconf/20219901006>

Challenges to regional universities in Russia: The case of Ural Federal Okrug

Marina Vidrevich and Irina Pervukhina
SHS Web Conf., 99 (2021) 01007
DOI: <https://doi.org/10.1051/shsconf/20219901007>

Clearing the Final Hurdle: Getting Students to Engage with Feedback in Higher Education

Peter Wolstencroft and Lean de Main
SHS Web Conf., 99 (2021) 01008
DOI: <https://doi.org/10.1051/shsconf/20219901008>

Cognitive dialogue as a factor of enhancing the quality of education in the conditions of international cooperation in the sphere of higher education

Larisa Mukhametzyanova
SHS Web Conf., 99 (2021) 01009
DOI: <https://doi.org/10.1051/shsconf/20219901009>

Contributing factors of classroom teaching quality and improving strategies in Chinese universities: From Students' Perspective

Qin Yuan, Bei Chen and Wen Pengsheng
SHS Web Conf., 99 (2021) 01010
DOI: <https://doi.org/10.1051/shsconf/20219901010>

Current Approaches to Teaching Reading

Irina Sofronova
SHS Web Conf., 99 (2021) 01011
DOI: <https://doi.org/10.1051/shsconf/20219901011>

Delivering professional doctorate education: challenges and experiences during the COVID-19 pandemic

Matthew Tucker, Hannah Wilson, Claire Hannibal, Aileen Lawless and Zhouhua Qu
SHS Web Conf., 99 (2021) 01012
DOI: <https://doi.org/10.1051/shsconf/20219901012>

Development of creative intercultural and communicative competence of USMU international students at the lessons of Russian as a Foreign Language

Arzu Sadygova, Lyalya Yusupova and Mushfig Agababaev
SHS Web Conf., 99 (2021) 01013
DOI: <https://doi.org/10.1051/shsconf/20219901013>

Diagnosing the formation of an environment-oriented component of competencies in higher education

Olga Ponomariova, Olga Vasina and Sergey Shurygin
SHS Web Conf., 99 (2021) 01014
DOI: <https://doi.org/10.1051/shsconf/20219901014>

Dialogue between cultures: FL textbook as a foundation for high-quality education

Irina Pirozhkova
SHS Web Conf., 99 (2021) 01015
DOI: <https://doi.org/10.1051/shsconf/20219901015>

Diversification of teaching cognitive styles in higher school as a factor of enhancing the quality of teaching accounting the best European practices

Alexandra Kats
SHS Web Conf., 99 (2021) 01016
DOI: <https://doi.org/10.1051/shsconf/20219901016>

Educational ecosystem development based on quality management standards

Elena Levina and Elena Prokofieva
SHS Web Conf., 99 (2021) 01017
DOI: <https://doi.org/10.1051/shsconf/20219901017>

Educators' and students' perceptions of online distance education before and amid COVID-19: Key concerns and challenges

Tatiana Markova
SHS Web Conf., 99 (2021) 01018
DOI: <https://doi.org/10.1051/shsconf/20219901018>

Effectiveness of traditional and online learning: comparative analysis from the student perspective

Elena Makarova
SHS Web Conf., 99 (2021) 01019
DOI: <https://doi.org/10.1051/shsconf/20219901019>

Enhancing teaching practices at Penza State University

Sergei Vasin, Tatiana Razuvaeva and Konstantin Korolev
SHS Web Conf., 99 (2021) 01020
DOI: <https://doi.org/10.1051/shsconf/20219901020>

Experience of Enhancing Cross-Border Collaboration in professional training of industry personnel

Oksana Filatova, Maksim Gordeev, Larisa Gorbunova, Irina Nagaeva and Olga Mishunenkova
SHS Web Conf., 99 (2021) 01021
DOI: <https://doi.org/10.1051/shsconf/20219901021>

Financing the development of the regional vocational training system: qualitative changes

Elena Dvoryadkina, Elena Efimova and Dina Prostova

SHS Web Conf., 99 (2021) 01022

DOI: <https://doi.org/10.1051/shsconf/20219901022>

Humanistic orientation of Russian higher education as a new vector of its development

Rimma Gilmeeva and Luitsia Shibankova

SHS Web Conf., 99 (2021) 01023

DOI: <https://doi.org/10.1051/shsconf/20219901023>

Implementing innovative teaching methods in the digital environment

Tatyana Glotova and Irina Kolchugina

SHS Web Conf., 99 (2021) 01024

DOI: <https://doi.org/10.1051/shsconf/20219901024>

Innovation model of relations between Russia and China in the context of science and educational cooperation

Yelena Ivukina

SHS Web Conf., 99 (2021) 01025

DOI: <https://doi.org/10.1051/shsconf/20219901025>

Integrating soft skills development into English language class

Svetlana Andrievskikh and Valentina Lapina

SHS Web Conf., 99 (2021) 01026

DOI: <https://doi.org/10.1051/shsconf/20219901026>

Intercultural Competence in Practice: Internship Abroad in the B.A. Program “International Information Management” at the Hildesheim University Foundation

Olga Mennecke

SHS Web Conf., 99 (2021) 01027

DOI: <https://doi.org/10.1051/shsconf/20219901027>

Interdisciplinary integration as a basis for forming an environment-oriented component of competencies

Olga Vasina, Olga Ponomariova and Tatiana Kotelnikova

SHS Web Conf., 99 (2021) 01028

DOI: <https://doi.org/10.1051/shsconf/20219901028>

Linguistic Education and Economics: Way to Synergy

Natalia Zolotareva

SHS Web Conf., 99 (2021) 01029

DOI: <https://doi.org/10.1051/shsconf/20219901029>

MBA programs and their perspectives on the regional level in Russian Federation

Irina Stikhina

SHS Web Conf., 99 (2021) 01030

DOI: <https://doi.org/10.1051/shsconf/20219901030>

Modeling cognitive learning spaces in Russian universities in the context of globalization and digitalization

Tatiana Tregubova and Irina Ainoutdinova

SHS Web Conf., 99 (2021) 01031

DOI: <https://doi.org/10.1051/shsconf/20219901031>

Multiple-choice questions and essays in assessing economics

Svetlana Vlazneva and Olga Androsova

SHS Web Conf., 99 (2021) 01032

DOI: <https://doi.org/10.1051/shsconf/20219901032>

Perspectives of authentic assessment and professional practice interventions in teaching and learning

M. Royce, J. Jariwala, M. Petzer and J. Turner

SHS Web Conf., 99 (2021) 01033

DOI: <https://doi.org/10.1051/shsconf/20219901033>

Professional Training Scheme in USUE: COVID-19 Pandemic Impact

Marina Vidrevich and Irina Pervukhina

SHS Web Conf., 99 (2021) 01034
DOI: <https://doi.org/10.1051/shsconf/20219901034>

Programmes design for teachers' professional development as a way of organizational development for the human's capital of the university

Rimma Gilmeeva and Liutsia Shibankova
SHS Web Conf., 99 (2021) 01035
DOI: <https://doi.org/10.1051/shsconf/20219901035>

Psychological safety as a characteristic feature of common education environment of higher educational institutions in times of globalization

Nadezhda Nichiporenko and Anna Zhemchugova
SHS Web Conf., 99 (2021) 01036
DOI: <https://doi.org/10.1051/shsconf/20219901036>

Quality assurance of higher education in chemistry in Russia taking into account international trends in the context of the cognitive paradigm

Alsu Kamaleeva and Suriya Gilmanshina
SHS Web Conf., 99 (2021) 01037
DOI: <https://doi.org/10.1051/shsconf/20219901037>

Quality of the master's program: factors and regulatory framework

Natalia Vlasova and Dmitriy Karkh
SHS Web Conf., 99 (2021) 01038
DOI: <https://doi.org/10.1051/shsconf/20219901038>

Teachers' professional growth as a condition for improving the quality of higher education in the context of global and Bologna dimensions

Tatiana Zabelina and Ekaterina Spiryagina
SHS Web Conf., 99 (2021) 01039
DOI: <https://doi.org/10.1051/shsconf/20219901039>

Socio-psychological problems of the transition of university teachers to distance employment during the Covid19 pandemic

Anastasiya Pesha and Tatyana Kamarova
SHS Web Conf., 99 (2021) 01040
DOI: <https://doi.org/10.1051/shsconf/20219901040>

Teacher-student interaction in the context of higher education

Elena Makarova
SHS Web Conf., 99 (2021) 01041
DOI: <https://doi.org/10.1051/shsconf/20219901041>

The development of the well-being of students of the risk group as an indicator of improving the quality of higher education in the context of the Bologna process

Svetlana Khusainova and Ekaterina Palekha
SHS Web Conf., 99 (2021) 01042
DOI: <https://doi.org/10.1051/shsconf/20219901042>

The experience of distance learning in the bologna process countries during the COVID-19 pandemic

Zarina R. Bitieva, Maria A. Bulavina and Zalina R. Bitieva
SHS Web Conf., 99 (2021) 01043
DOI: <https://doi.org/10.1051/shsconf/20219901043>

The impact of digital technology on the quality of higher education

Elena Zaborova
SHS Web Conf., 99 (2021) 01044
DOI: <https://doi.org/10.1051/shsconf/20219901044>

The stages of students' behaviour change functioning as predictors of dropout

Csilla Marianna Szabó and Haneen Matar
SHS Web Conf., 99 (2021) 01045
DOI: <https://doi.org/10.1051/shsconf/20219901045>

Theoretical and methodological aspects of assessing the impact of migration flows as a consequence of the Bologna process on the security of the state

Oleg N. Slobotchikov, Zarina R. Bitieva, Mikhail V. Shatokhin and Elizaveta V. Shianova
SHS Web Conf., 99 (2021) 01046
DOI: <https://doi.org/10.1051/shsconf/20219901046>

Video presentations, video conferences, seminar discourse or oral student presentation? - Are "traditional" academic genres changing or even disappearing?

Beatrix Kreß and Kathrin Schweiger
SHS Web Conf., 99 (2021) 01047
DOI: <https://doi.org/10.1051/shsconf/20219901047>

Preface

Proceedings of the International Conference “Delivering impact in higher education leaning and teaching: Enhancing cross-boarder collaborations”

Dear Colleagues

It is a great privilege for us to present the proceedings of the International Conference 2021 to the authors and delegates of the event. We hope that you will find it useful, exciting and inspiring.

The collection of proceedings contains the papers submitted to the International Conference **Delivering impact in higher education learning and teaching: Enhancing cross-boarder collaborations** which was held in Ural State University of Economics in Ekaterinburg, Russia, during April 6-9, 2021. The Conference was part of an international conference series within the framework of the ERASMUS+ Capacity Building Project: **Enhancing Teaching Practice in Higher Education in Russia and China (ENTEP)**. There was a significant international representation, with participants coming from universities of Europe, China and Russia.

The Conference aims to provide a platform for discussing the issues, challenges, opportunities and findings of research on higher education teaching and learning practice. Hopefully, it will also spark innovative ideas, foster research relations or partnership between the various institutions.

The improvement of higher education quality becomes an increasingly important issue. One of the most important contributions resides in what and how we learn through the improvement of educational processes. Our International Conference seeks to provide some answers and explore the processes, actions, challenges and outcomes of learning, teaching and human development. Our goal is to offer a worldwide connection between teachers, students, researchers and lecturers, from a wide range of academic fields, interested in exploring and giving their contribution in educational issues.

This Conference addressed different categories inside the Higher Education area and papers are expected to fit broadly into one of the four main broad-ranging categories:

- Russia and Bologna process: perspectives, problems, convergence process;
- China and Bologna process: perspectives, problems, convergence process;
- Ways to adopt European experience of providing higher education in Russia and China (ENTEP Project realisation);
- Providing high-quality higher education in Europe, Russia and China: problems and solutions.

The year 2020 and the COVID pandemic brought a changed context for higher education all over of the world. One notable change in the educational landscape

occurred during the past year: transition from traditional in-class lessons to online versions. So it is hardly surprising that in their research the majority of our contributors focus on the impact of the COVID crisis on teachers' perceptions regarding their online teaching expectations.

The editors hope that this publication will provide the reader a broad overview of the latest teaching practices, and that it will be a valuable reference source for further research.

We are optimistic and full of hope about getting the proceedings of the Conference covered by Web of Science in due course.

The editors would like to express their sincere appreciations and thanks to all the authors for their contributions to this publication.

We would like to express our gratitude and appreciation for all of the reviewers for their constructive comments on the papers.

We would also like to extend our thanks to the members of the organizing team for their hard work.

And we are looking forward to further cooperation and future meetings at the Ural State University of Economics in Ekaterinburg.

ENTEP coordinator Professor Holger Kusse

The linguistic landscape of the coronavirus crisis in foreign language didactics by using the example of German

*Holger Kuße**

Slavic Languages and Linguistics, Institute for Slavic Studies, TU Dresden, 01062 Dresden

Abstract. The coronavirus crisis has changed not only the practice of language teaching in higher education, but also the languages themselves; the crisis is strongly reflected in language. This can be seen in neologisms, new word formations and in the linguistic landscape in general. All these phenomena should be creatively included in foreign language didactics. Using examples from German the paper deals with several tasks and exercises concerning the language of the corona crises, i.e. word formation, word play, forms of politeness and the communication of values.

1 Introduction

Put simply, the coronavirus pandemic has changed life at universities. Teaching has become largely digital and must therefore rely even more on the independence and creative skills of students than was already the case in the modern teaching practice in higher education. This is especially true in foreign language education. The task of foreign language didactics is to use these challenges as opportunities. In the coronavirus pandemic, this means concretely: its widely visible linguistic impacts should be included in language teaching.

The following topics in particular can be addressed: (1) vocabulary and word formation, (2) wordplay and humour, (3) politeness and values. Students should search for and evaluate material on the different topics. This should be achieved by creating corpora from the Internet, documenting linguistic landscapes in the public sphere and reflecting on existing studies. The evaluation of materials from the linguistic landscape is particularly important. Language in the public space has received increasing attention in linguistics in recent years [1, 2, 3], and is also suitable for language teaching, since posters, signs, etc. often contain very concise forms that reveal much about contemporary language use. The coronavirus crisis has also left clear traces on the linguistic landscape [3, 4] that can be documented by students in Germany themselves. As an outcome, posters, signs, inscriptions and other elements of linguistic landscape can be shown and commented on in a poster exhibition or in internet exhibitions on the seminar's website. For students outside Germany, teachers should send photographs of the German linguistic landscape directly to them.

2 Vocabulary and word formation

The coronavirus pandemic has generated a large number of new words and word formations in all languages. The words Coronavirus and Pandemie (Pandemic) were nearly unknown in German at the beginning of 2020. In addition, there are new anglicisms such as Social Distancing and Homeschooling, and another anglicism Homeoffice has in particular become widespread. There are neologisms such as Herdenimmunität (herd immunity), and new administrative terms such as Hygieneabstand (hygiene distance) or Abstands- und Hygieneregeln (distance rules and hygiene rules) have entered the everyday language. Furthermore, some words have acquired a special meaning. This applies, for example, to the word Risikogebiet (risk area). The word does not say what risk is particularly high in an area, but today the meaning 'area with an increased risk of infection with the coronavirus' is connoted above all. The word Corona has in general become a productive root in the German composite. The root has shed its second, appellative part -virus in the process, and has been replaced by specifiers such as -krise (crisis) or -zahlen (numbers). These neologisms are formed as real compounds or as binomina with a hyphen. In many cases both forms are possible, e.g. Coronakrise and Corona-Krise. Common composites are Coronaregel (corona rule), Coronazahlen (corona numbers), Coronaausbruch (corona outbreak), Coronasymptome (corona symptoms). Binomina show great variety: Corona-Infektion (corona infection), Corona-Situation (corona situation), Corona-Schutz (corona protection), Corona-Maßnahmen (corona measures), Corona-Ferien (corona holidays), Corona-Nachrichten (corona news), Corona-App (corona app), Corona-Leugner (corona denier), Corona-Leugner-Demo (corona denier demonstration) etc.

Students shall:

Collect and classify material by themselves: Anglicisms, neologisms, compound formations, binomina, etc.

Compare German word formations with other languages they know.

Students can use various tools. For German, the publications of the Institute for the German Language in Mannheim (IDS), which are freely accessible on the Internet (<https://www1.ids-mannheim.de/sprache-in-der-coronakrise/>), are particularly helpful. Depending on the language level of the students, these texts can be read and evaluated by themselves or prepared by the teacher and provided with translation aids. In the meantime, comparative language studies have also been published [5].

3 Wordplay and Humor

People always react to crises with humour. Teachers can discuss certain forms such as comedy or cartoons, internet memes, etc. with students. For advanced students, the YouTube videos of the comedy couple Hazel and Thomas are suitable, especially Social Distancing Ep. 1: Bücher (Books) (<https://www.youtube.com/watch?v=2bnmDsAu068>). This also works with shorter forms, especially with jokes that can be found in large numbers on the Internet, e.g. at www.pinterest.de:

Sagt gerade ein Virologe im Fernsehen: Die beste Waffe im Kampf gegen das Coronavirus ist der gesunde Menschenverstand. Wir sind verloren! Die meisten von uns sind unbewaffnet.

A virologist is saying on TV right now: The best weapon in the fight against the coronavirus is common sense. We are doomed! Most of us are unarmed.

Suche asoziale Kontakte, soziale sind ja verboten.

I'm looking for asocial contacts, as social contacts are forbidden.

The examples are based on the polysemy of the word weapon, the use of the phraseme common sense and the intentional misinterpretation of the semantic contradiction of asocial and social. Furthermore, a typical form of such slogans is the literal interpretation of metaphors, as in the following example with the word Hamsterkauf (by which is meant

metaphorically ‘panic buying’): Because of Coronavirus, Hamsterkäufe is being advised according to the media. Now I have bought such a hamster. What now?



Fig.1

The phrase “according to the media” is particularly pertinent, as panic buying was advised against, i.e. exactly the opposite of what is claimed in the saying – an allusion to the widespread panic buying at the beginning of the first lockdown in March 2020.

Simple forms of wordplay can also be found in the linguistic landscape of public spaces. The predicative collocation Verantwortung tragen (to bear responsibility) and the prepositional construction mit Abstand (with distance) provoke wordplay. The double meaning of tragen for a physical activity (to wear) and a social role (to bear) makes Maske (mask) a contextual synonym for Verantwortung (responsibility). On the doors of buses and trams in the city of Dresden there are smileies with a mask and the inscription Verantwortung tragen! (Bear responsibility! = Wear a mask!). Additionally, a supermarket points out to customers at the entrance that bearing responsibility is standard today: Heute trägt man Verantwortung! (Today you bear responsibility! = Today you wear a mask!).



Fig. 2, photo: Holger Kuße

The request to bear responsibility is only clear with the associated illustration. In the case of mit Abstand (with distance) on the other hand, the double meaning is understandable because of the construction mit Abstand am besten / schönsten / schnellsten

(by far the best / nicest / fastest), which in German reinforces the superlative. A café calls on its guests to keep their distance and at the same time advertises its cake as the best in town: Wir haben mit ABSTAND den besten Kuchen! (We have by far the best cake!).



Fig.3, photo: Holger Kuße

Even the German government has been linguistically creative and created the AHA formula or AHA rule. In German, Aha is an expression of spontaneous realisation; a person realises something that they did not know before. There is the binomen Aha-Erlebnis (aha experience). However, the letter sequence A-H-A in the AHA rule also designates the first letters of the three words Abstand (distance), Hygiene (hygiene) and Alltagsmaske (everyday mask). The AHA formula is advertised on cityscape billboards:



Fig. 4, photo: Holger Kuße

The Gemäldegalerie Alte Meister (Old Masters Picture Gallery) in Dresden has an advertisement of a painting of Adam and Eve in paradise shortly before the forbidden consumption of the fruit from the tree of knowledge. Both are wearing facemasks. Between them, an arrow graphic illustrates the social distancing requirement of 2 metres. The poster plays with the double meaning of the phrase *Mit Vorsicht zu genießen!* (To be enjoyed with caution!), which means that a certain thing should only be approached with extreme carefulness. This meaning refers directly to the story of the fall. As a message for the museum visitor, however, the expression means nothing other than that the visitor is able to visit the painting gallery, but that he or she should do so with caution, and at the same time with due distance from each other and the paintings.



Fig.5, photo: Holger Kuße

Students shall:

Find examples of humour and wordplay in the context of the coronavirus crisis.

Distinguish word plays on the basis of collocations (*Verantwortung tragen*), double meanings (*Mit Abstand am besten*) and phraseologisms (*Mit Vorsicht zu genießen!*), and understand their semantics (idioms, metonyms, metaphors, contra-dictions, etc.).

4 Politeness and values

Throughout public spaces and in shops, two rules of conduct are particularly important: keeping distance from other people, and wearing a mask. The request to keep one's distance is expressed in its simplest form with the imperative infinitive *Maske tragen* (Wear a mask) or by the noun *Maskenpflicht* (Maskobligation).



Fig.6, Photo: Holger Kuße

However, most cues in public spaces are characterised by various forms of politeness. These include the form of address, the explicit form of request, the avoidance of the word *Pflicht* (obligation) etc., as in the following example: *Liebe Gäste, tragen Sie in den öffentlichen Bereichen bitte ihren Mundschutz* (Dear guests, please wear your facemask in public spaces).



Fig.7, Photo: Holger Kuße

In these requests and instructions, it is not only rules of conduct that are prescribed, but also values. In the last example, this is accomplished with the word *Schutz* (protection), which refers to the value of safety. The most important values that appear in the linguistic landscape of the coronavirus crisis are safety, health, responsibility, and togetherness. The value responsibility is metonymically linked to the mask; cf. the word plays mentioned above with the collocation *bear responsibility*. Safety is a value often explicitly mentioned to justify the prescribed measures in public spaces (wearing a facemask, keeping one's distance); cf. a poster at Deutsche Bahn railway stations with the inscription *Zu Ihrer und unserer Sicherheit* (For your and our safety).



Fig.8, Photo: Holger Kuße

In these requests and references, people are sometimes addressed directly. In the following example, customers of a grocery shop are told that their health is of high value: Deine Gesundheit liegt uns am Herzen (Your health is close to our hearts). The poster has the function of politely asking people to wear a mask: Bitte pass auf dich auf und nutze einen Gesichtsschutz, Mundschutz oder Schal (Please take care of yourself and use a facemask, mouth mask or scarf).



Fig.9, Photo: Holger Kuße

The use of the idiomatic expression *liegt uns am Herzen* (is close to our hearts) indicates a dilemma in the communication of values. Distance and mask are expressions of responsibility and safety, but they are also a sign of distance and social separation. There are examples that respond to this value dilemma; e.g. *Im Herzen nah trotz 1,5 Meter Abstand* (Close at heart despite 1,5 metres distance).



Fig.10, Photo: Holger Kuße

Keywords used in official communication to express social cohesion and community during the coronavirus pandemic have been the adverbs *gemeinsam* and *zusammen* (together). The collocation *gemeinsam gegen Corona* (together against corona) currently yields a hit rate of about 534,000 on Google, while *zusammen gegen Corona* has a hit rate of about 109,000 (13.12.2020). For instance, Deutsche Bahn has a website with the address www.gemeinsamgehtdas.de (together it works), and The Federal Ministry of Health provides information on the site www.zusammengegencorona.de/. There are similar websites in regional areas. For example, companies in the city of Leverkusen have formed a mutual aid network, the services of which can be seen on the site www.gemeinsam-gegencorona.info/. The slogan on the homepage is *Leverkusener halten zusammen* (Leverkuseners hold together).

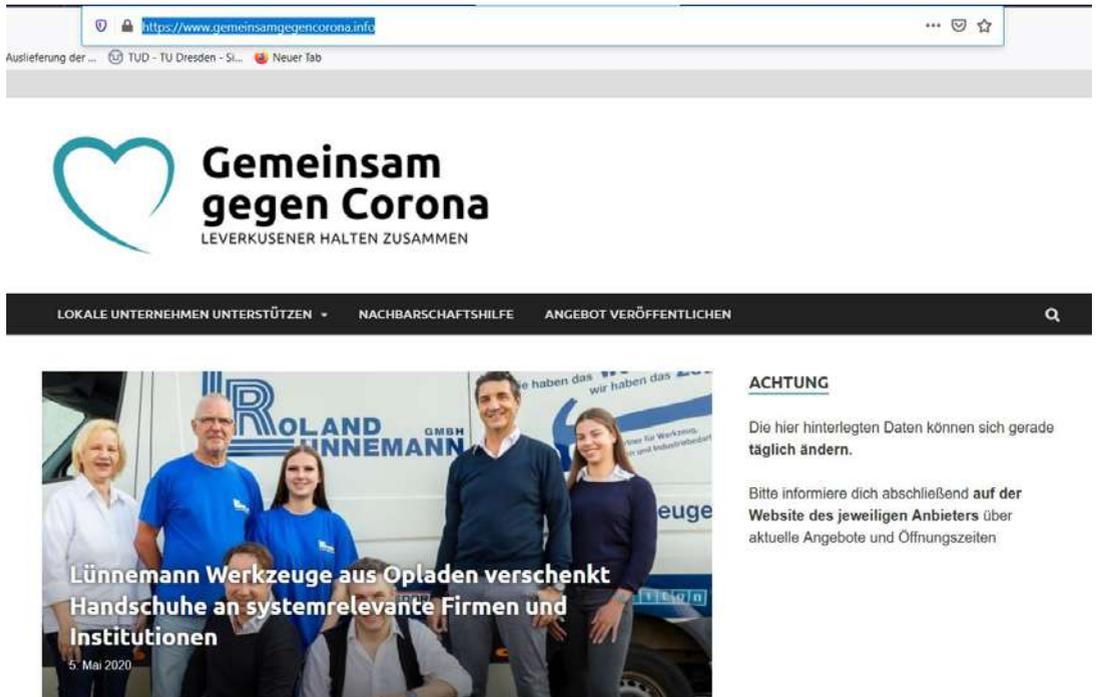


Fig.11, www.gemeinsamgegenecorona.info

There are hashtags like #gemeinsamgegenecorona, #wirhaltenzusammen (we hold together) or #besonderehelden (special heroes). All of this gives a lot of material that can be compiled by students and evaluated in collaboration.

Students shall:

Collect forms of politeness in the linguistic landscape and classify them according to degrees of politeness.

Distinguish forms of expressing values: e.g. the indirect expression of the value safety through the use of the word protection and its derivatives, the expression of value dilemmas through adversative or concessive constructions, and the expression of values in adjectives and adverbs.

5 Conclusions

The coronavirus pandemic has restricted public life. However, it has also greatly enriched the vocabulary and led to changes in the linguistic landscape. These phenomena are to be dealt with creatively in language teaching. The students' task should be to collect, classify and evaluate new language phenomena, whilst the target is to increase linguistic and cultural competences through creative work on current phenomena of language in interaction with the lecturer and independently, and to develop the competence to autonomously access current language developments. On this basis, small projects can be developed in which the students identify the special features and developments in the language of the coronavirus pandemic and present them publicly – for example, in the form of small exhibitions on the Internet or, when this is again possible, in the form of poster exhibitions.

References

1. P. Backhaus, *Linguistic Landscapes. A Comparative Study of Urban Multilingualism in Tokyo*. Clevedon; Buffalo; Toronto: Multilingual Matters Ltd., 158 (2007)
2. L.L. Fedorova, Language landscape: city and crowd. *Bulletin of Novosibirsk State University*. Series: History, Philology. 6. 70 (2014)
3. H. Kusset, Linguistic landscape of coronacrisis in Germany. *Communication research*. 4, 814 (2020) [<http://www.com-studies.org/ru/>]
4. A. Mueller, On the reflection of the pandemic in different cultural linguistic landscapes (on the example of elements of the public space of Minsk, Nuremberg and Warsaw). 4. 846 (2020) [<http://www.com-studies.org/ru/>]
5. A. Mustajoki, N. Zorikhina-Nilsson, A. Tous-Roviroso, R. Guzman Tirado, D. Dergacheva, I. Vepreva, T. Itskovich, Covid-19: a catastrophe in the linguistic dimension of different countries. *Quaestio Rossica*. 4. 1369 (2020) [<https://qr.urfu.ru/ojs/index.php/qr/issue/view/316/238>]

A Case Study of Adopting European Experience of Office Hours to Improve Off-class Instructor-student Interaction in Private Universities in China

Shaoying Wu

University of Sanya, #191 Yinbin Ave, Sanya, Hainan Province 572022, P.R.China

Abstract. To integrate with international standards, the University of Sanya explores European experiences in teaching and management. In 2016, the university promoted a campus-wide office-hour policy to improve student-teacher communication after class. However, after four years of implementation, most teachers believe such a policy failed to achieve the goal. Therefore, the author delivers questionnaires and interviews to students and teachers from selected business majors. This paper finds that office hour was an inferior way to communicate as in China students are allowed to have teachers' personal contact information. And students learning behavior is key to off-class communication. Moreover, the working environment affects teachers attitudes towards office hour. Office hour is a small case but can be inspiring to the future adoption of foreign experience in education as pre-investigation and localization do matter.

1 Introduction

Private universities in China used to compete against the public ones in the earlier 20th century. However, these private universities encountered enormous challenges and difficulties due to the social and historical change and complex international background. Gradually, private-owned universities withdrew from the stage of China's higher education and went back on stage after the late 1970s when China announced the economic reform and open-up policy. For the past forty years, private universities developed from scratch. To improve the overall educational quality as well as to survive the pressure from the public universities, private universities in China walk out of the border and actively absorb the experiences overseas. Some experiences benefit the development of private universities, while others become a promotional stunt for the institution. Being one of the top five private universities in China, the University of Sanya can not avoid such a trend.

To integrate with international standards, the University of Sanya studies European and American experiences in teaching and management and explores education reforms on campus.

One of the experiences learned from Europe is requiring the individual instructor to have on-site office hours, to increase student performance and engagement by faculty-student interaction. According to such a campus-wide proposal, a teacher must have at least 1/3 of one's off-class hours in the office. And each school is required to set a corresponding policy

to guarantee teachers are in their office. Therefore, teachers are facing attendance checks during their office hours and an absence with no will affect the teacher's annual evaluation as well as the school's annual assessment held by the university.

Chickering and Garmson first highlighted that frequent instructor-student interaction is key to student motivation and involvement[1]. Following empirical studies substantiated their insights. Moreover, quality interaction with instructors improves students' confidence in academic performance and aspirations for further study [2,3]. Office hours realize such interaction. However, it is not common to have mandatory office hours in China's universities, and not many studies in China focus on such a field. Hong and Hu believe that office hours applied in Nanchang University promote interaction between teachers and students and stimulate students' learning motivation and effectiveness [4], however with no data support analysis. Nevertheless, researchers are unsatisfied with students' involvement in office hours as the office hours become a rather lonely time for the instructors [5]. To explain students' under-utilization of office hours, studies delve into the factors that affect students' attendance of office hours. Generally speaking, instructors' influence and approachability to students and ease-of-access issues affect students' attendance [6,7,8,9]. Researches also notice that instant messaging and Internet-based technology is used to conduct office hours. However, while some scholars believe the instructor-student interaction benefits from information technology while some others not [5,10].

China has a rapid development in communication applications, such as WeChat and QQ, which are widely used in daily life. Therefore, under the reality in China, whether on-site office hours are the key to instructor-student remains worthy of discussion.

2 Method

To evaluate the role office hours played in instructor-student interaction in business school from the University of Sanya, the author utilizes questionnaires and unstructured interviews to capture data from both students and teachers.

Procedure

This study collected data from instructors and students from business school, S. Students majoring in Y from School M also participated in the students' survey for comparison. Major Y is the only one that has similar courses as Major X. Moreover, only junior students participated in the survey. According to Cotten and Wilson [11], the students' familiarity with the institution and its norms affect the students' willingness and frequency to interact with teachers; yet such familiarity takes time. Considering that the freshmen and sophomores may not familiar with the university life and office hour and seniors are off-campus for the internship, only juniors answers questionnaires.

After the literature review on factors affecting the office hours use, the author designed a short survey to understand teachers' overall perception of the office hours performance. The survey contains one yes/no question of teacher's overseas study experience. The rest are scale questions, covering topics like teacher's impression of office hours, the frequency of different off-class interacting approaches, the preferred topics raised in students' visit, and current dilemmas faced by teachers reg office-hours. Then the author delivers an unstructured interview to teachers, delving into the factors behind teachers' perception.

Based on the information collected from teachers' surveys and interviews, the author designed a survey to students on their office hours use, their learning behaviors, and their evaluation of the instructor-student interaction experience. To ensure the reliability of the questionnaire, all questionnaires are anonymous.

Participates

School S has eight full-time instructors engaged in office-hours. All of them participated in the teacher's survey and interview. About 76% of the juniors majoring in X and 64% majoring in Y participated in the students' survey. The author collected 180 valid students' responses. Of 32 students' responses from Major X, 50% self-identified as female and 50% as male; of 148 students' responses from Major Y, 60% self-identified as female and 40% as male. All matches the gender composition of each major (Table 1).

Table 1. Students' Gender Composition for the Survey Compared to Juniors in Total

	Major X	Major Y
Survey(M:F)	1: 1	1:1.64
Juniors in total(M:F)	1: 1	1:1.75

Instead of the traditional five-point Likert scale, six-point scales are applied to evaluate most questions on the survey. The higher the score is, the higher the agreement with the statement is. Among them, scores 1-3 are regarded as a negative attitude towards the statement, while scores 4-6 a positive feedback.

3 Results and Discussion

Both teachers and students expressed positive attitudes towards off-class instructor-student interaction; however, teachers display negative attitudes towards the effect of office hours on interaction, and students preferred to interact by Wechat or QQ rather than on-site office hours.

Survey asks instructors to rate the overall performance of instructor-student interaction. The average score is 4.8 out of 6. The survey also asks them to rate the contribution of office hours to office hours. The average score is 2.4 out of 6. Half of the instructors used to study overseas and visited their teachers during office hours. They leave an average of 4.8 points for the overseas office-hour experience, but 2.7 for the one carried in the University of Sanya. According to the interviews, all instructors are confident about their approachability to students as well as the frequency of their off-class interaction with students. Moreover, they point out that at most 10% of the interaction happens during the scheduled office hour. What confuses teachers is whether the tutoring out of the office hours is recognized by the university, considering that the university is rather strict on teachers' attendance of office hours. All instructors interviewed had the experience of receiving students' messages during non-working hours, even after 10 pm, and they replied once they noticed it.

Students' responses display positive attitudes towards instructor-student interaction. However, students of Major X show higher satisfaction with an average score of 4.75 out of 6, compared with 4.43 given by students of Major Y (Table 2). Furthermore, around 20% of the students surveyed have never talked face-to-face with any instructor for three years in the university. The survey asks the rest 80% of the students to rate the frequency of their interaction with teachers during teachers' scheduled office hours. About 65% of them, who have talked to instructors off-class, are rarely happened during scheduled office hours. Additionally, the students from major X have a higher frequency of office hours usage (Table 2). The result matches with instructors' feedback that students rarely visit teachers during their scheduled hours.

Table 2. Students' Evaluation on the Instructor-Student Interaction and Office Hours Use

	Major X				Major Y			
	Ave.	SD	Percentage of 1-3 score	Percentage of 4-6 score	Ave.	SD	Percentage of 1-3 score	Percentage of 4-6 score
Overall evaluation	4.75	1.08	9%	91%	4.43	1.13	21%	79%
Office hours use	2.61	1.55	77%	23%	3.06	1.57	62%	38%

Moreover, according to the survey, the author finds both students and teachers agree that teachers are more active than the students in instructor-student action. And students interact with instructors from their school more often than with the ones from other schools.

To examine the under-utilization of office hours, the author asks instructors their understanding of the factors that led to such phenomenon. Their responses show that students' study motivation/initiative as well as preference for virtual communication tools are the top factors, which however are beyond instructors' control.

The survey asks a series of self-evaluation questions on students' learning behavior[12], both in-class and off-class (Table 3). Students are more active in teamwork or group discussion than individual presentations and question and answer. It matches the universal impression on general Chinese students, hardworking but self-constrained. Regarding off-class behaviors, the majority of students manage to submit homework on time, mainly because homework constitutes the final score of the subject. However, students are less active in off-class discussion, library resource utilization, and preview and review, which can hardly be monitored and scored by instructors. Learning habits and behaviors form in a long time, which affects students' previous performance as well. The students with inferior high school academic performance enroll in secondary universities, like the University of Sanya. Therefore, the survey asks students to recall their performance in senior high school. According to the results, 5% of the students ranked top 10%, 21% of them 11%-25%, 32% of them 26%-50%, 30% of them 50%-75%. Moreover, major X has more students with poor academic performance in high school than Major Y, as 53% of the students from major X used to be the last 50% ones in their high school.

Table 3. Students' Response on Learning Behavior

	Major X				Major Y		
	Average In-class Score	Percentage of 1-3 score	Percentage of 4-6 score	Average Score	Percentage of 1-3 score	Percentage of 4-6 score	
Active in teamwork/group discussion	4.25	31%	69%	3.65	46%	54%	
Active in individual presentation	3.38	59%	41%	3.22	61%	39%	
Raise and answer questions Off-Class	3.13	66%	34%	3.52	55%	45%	

Continuation of Table 3

Submit homework on time	4.66	13%	88%	5.11	14%	86%
Discuss with classmates	3.50	50%	50%	3.76	45%	55%
Discuss with teachers	3.31	59%	41%	3.09	60%	40%
Use library resources for further study	3.34	63%	38%	4.25	32%	68%
Preview and review	3.19	69%	31%	3.78	43%	57%

Survey also asks students to evaluate their preference for problem-solving methods. The top solution to problems is to find the answer online by themselves. If problems remain unsolved, students prefer to ask classmates or friends for help rather than an instructor. If professional instruction is needed, visiting the teacher during office hours is not the first choice. Both teachers and students select online communication as the most popular method of off-class interaction. The majority of students contact instructors by WeChat or QQ (Table 4). The European culture emphasizes individual privacy; therefore, instructors in European universities rarely leave their personal contact information to students. However, in China, efficiency outweighs privacy. It is common for students to have instructors' personal contact information, including phone numbers and social media accounts. Another difference is that, in Europe, email is popular in business and academia. In China, people exceedingly apply WeChat and QQ in their lives and work. Hence, if students can not receive answers by WeChat or QQ, they tend to raise the question during the class break if necessary. When the above methods failed, students will visit instructors the other time, which may not be in the office hours.

Table 4. Students' Frequencies of Different Communicating Methods

	Major X			Major Y		
	Average Score	Percentage of 1-3 score	Percentage of 4-6 score	Average Score	Percentage of 1-3 score	Percentage of 4-6 score
WeChat	4.45	26%	74%	3.30	59%	41%
QQ	3.58	52%	48%	3.45	57%	43%
Phone Call	2.29	87%	13%	2.47	76%	24%
Email	1.87	87%	13%	2.12	85%	15%
Letter	1.39	94%	6%	1.79	85%	15%
Face-to-face conversation	3.65	55%	45%	3.04	61%	39%
Others	2.23	84%	16%	2.39	74%	26%

Compared with students of Major Y, students of major X use Wechat more often than QQ (Table 4), which coincides with the fact that instructors from Major X use Wechat more

often than QQ to communicate in academia and student affairs during their working hours. Furthermore, students from Major X have a higher frequency in face-to-face conversation, as Major X has a higher teacher/student ratio and higher convenience. The teacher/student ratios of major X and Major Y are 1/31 and 1/92, respectively. And the instructor offices and most of the students' classroom major X are in the same building, while that of Major Y are in separate buildings. Moreover, working environments affect teachers' office hours experience. In major X, each instructor has the exclusive use of one office room, while seven instructors of Major Y share one big office. As half of the instructors interviewed in Major X used to work for Major Y, they expressed the importance of having an independent working space.

Based on the case study, office hours contribute not much to instructor-student interaction. Nevertheless, the interaction and student engagement are of greater importance than the office hours policy. Office hours are one of the approaches to achieve such a goal. It is crucial for institutions and teachers to clarify attitudes about the purpose of importing such policy. This study is limited in that it was research on business schools of one university. Even two business majors present differences in many aspects, not to mention differences among schools and between public and private universities. Additionally, it is worth discussing how to localize office hours and make use of virtual tools in interaction. However, this study offers inspiration on the adoption of advanced overseas experience on private universities in China, be cautious on the adaptability and localization do matter.

Conclusion

1. Chinese instructors have higher approachability because students are accessible to instructors' personal contact information, which breaks the limit of time and location. The most popular approach to communicate with teachers is Wechat and QQ, rather than on-site office hour.

2. Office hours may not reach the goal of improving off-class instructor-student interaction if most students are not making use of office hours. The under-utilization may be caused by students' motivation and their preference in communication methods, which are beyond instructors' control.

3. Even students with two business majors present differences in learning behavior and communication preference, not to mention other majors and schools. The implementation and evaluation of any policy shall be in line with local conditions.

References

1. A. Chickering, Z. Gamson Seven Principles for Good Practice in Undergraduate Education. *AAHE Bulletin*, **39**. 3 (1986)
2. D. Cole, Do Interracial Interactions Matter? An Examination of Student Faculty Contact and Intellectual Self-Concept. *Journal of Higher Education*, **78**. 249 (2007)
3. S. Hurtado, K. Eagan, M. Tran, C. Newman, M. Chang, P. Velasco We Do Science Here: Underrepresented Students' Interactions with Faculty in Different Contexts. *Journal of Social Issues*. **67**. 3. 553 (2011)
4. Enqiang Hong, Hu Tianyou A Case Study of Solutions to Problems in Practicing Office Hours System in Mainland Universities of China. *Journal of Ningbo University(Educational Science Edition)*, **34**. 05. 59 (201 2)
5. L. Li, J. Pitts Does It Really Matter? Using Virtual Office Hours to Enhance Student-Faculty Interaction. *Journal of Information Systems Education*, **20**, 2. 175 (2009)

6. S. L. Dika Relations with faculty as social capital for college students: Evidence from Puerto Rico. *Journal of College Student Development*. 53. 596 (2012)
7. L. Layne Defining effective teaching. *Journal on Excellence in College Teaching*, 23. 1. 43 (2012)
8. Whitney Griffin Starting the Conversation: An Exploratory Study of Factors That Influence Student Office Hour Use. *College Teaching*. 62. 3. **94** (2014)
9. Margaret Smith Office Hours Are Kind of Weird': Reclaiming a Resource to Foster Student-Faculty Interaction. *InSight: A Journal of Scholarly Teaching*. 12. 14 (2017)
10. O.Cifuentes, N. Lents Increasing Student-Teacher Interactions at an Urban Commuter Campus through Instant Messaging and Online Office Hours. *Electronic Journal of Science Education*. 14. 1. 1 (2010)
11. S.Cotten, B. Wilson Student Faculty Interactions: Dynamics and Determinants. *Higher Education*. 51. **487** (2006)
12. Jianping Luo, Luting Ma On the Relationship between Students' Type and Learning Behaviors. *Journal of National Academy of Education Administration*. 08. 78 (2013)

Application of Case Study Method in Teaching Students Specialized in Economics

Tatyana Panteleeva, Elena Tikhonova, Alexander Boykov

Institute of World civilizations 119049, Leninsky Prospekt, d. 1 / 2, building 1, Moscow, Russia

Abstract. The article focuses on the role of interactive methods in teaching students of economic areas of training, in particular, on the example of the analysis of the introduction of the case method into the teaching methodology. The objectives of the study were to consider the features of modern schools in Europe in the use of the case method; to analyze approaches to the use of the method in foreign countries. The advantages of the case study method over other teaching methods are listed, and the importance of the method in the formation of necessary competencies in teaching students is determined. The article analyzes the experience of implementing the case method in the teaching of economic disciplines. The study reveals the main advantages of using European methods of using the case format in a Russian university. The article determines that the case method can be a powerful tool in the development of critical thinking in future economists. At the same time, the importance of a comprehensive approach when using the method under study is emphasized.

1 Introduction

The use of the case method in teaching students of economic specialties seems to be the most reasonable and effective in modern realities. Proponents of this method in Russia and abroad have repeatedly emphasized its effectiveness, including the following authors: Ilyazova M.D. and Tulepbergenova D.Yu. [1]; Zhaksygulova G.K. and Nurpeisova A.A. [2]; Malkova L.L. and Kolaev A.A. [3].

The case method is becoming widespread in European universities. First, it is reasoned by the list of entrepreneurial competences, which a student should possess by the end of education, as defined in the recommendations of the EU Parliament [4]:

1. Have required competencies in the analysis of infrastructure and labor market conditions;
2. Have knowledge of business ethics and strive to comply with them;
3. Have skills of planning, making management decisions and keeping management records;
4. Master the skills of public communication;
5. Analyze risks;
6. Demonstrate initiator skills;
7. Have skills of team lead and motivating.

The implementation of the listed recommendations is supported by active use of the case method in European universities, increasing not only the motivation of students, but also the quality of learning. Transformation of the teacher from lecturer format into coaching format allows reducing the distance between the trainee and the learner, increasing the level of independence and developing proactive soft skills [5].

2 Materials and Methods

The case method is commonly interpreted as a qualitative method of studying phenomena based on particular situations. Since 1870, the Harvard University School of Law is a pioneer of this methodology [6]. It took 30 years for Harvard Business School to formally introduce it into the curriculum. The activation of professors of European schools in writing materials for classes using the case method began at the end of the 19th century (1890s). Currently, the main accumulator of materials on this method is the European Case Clearing House (ECCH), which unites over three hundred European and American educational organizations.

The difference in approaches of two classical case schools: Harvard (American) and Manchester (European) is of special interest. In adapting to the Russian methodology, the experience of the European school, which implies not choosing one, only right solution (which is characteristic of the Harvard approach), but forming a multivariate solution of a case problem, is seen as the most preferable.

We believe that the basis of case-based learning is problem-oriented learning, which implements three main components: lecture, seminar and independent work [7; 8; 9]. Both real-life situations and author's developments actualized according to economic realities are the tools.

Chinese educational institutions are characterized by a comprehensive approach in the use of the case method. The basis is the formation of entrepreneurial skills among students, including through problem solving in the framework of visiting school enterprises: industrial, agricultural, etc. at the next stages the implementation of this method continues, and its effectiveness is enhanced by creating an experimental base of pilot farms.

3 Results and Discussion

Let's consider implementation of the case method in the educational process of the Russian university using as an example the methods of teaching the Interdisciplinary Coursework Project on Financial and Economic and Managerial Aspects of the Organization Activities implemented for fourth-year students specialized in Management at Institute of World Civilizations (see Table 1). The focus group was group M1/BO17-2 students (24 people).

Table 1. Structure of the course unit with the indication of the applied case study technologies (compiled by the authors)

Theme No.	Training Subject	Type of Training	Type of Case	Case mode
1	Basics of Financial and Economic Analysis	Lecture	Training	Supporting Case

Continuation of Table 1

	Financial and Economic Analysis: Concept, Specificity and Essence	Practice	Practical	Case Study
--	---	----------	-----------	------------

	Classification of Types and Categories of Economic Analysis	Practice	Practical	Case Solution
2	Analysis of the Use of Fixed Production Assets and Labor Resources	Lecture	Training	Supporting Case
	Analysis of Human Resources	Practice	Practical	Case Study
	Analysis of the Use of Fixed Production Assets	Practice	Practical	Case Solution
3	Preliminary Analysis and Evaluation of the Property Status of the Enterprise	Lecture	Training	Supporting Case
	Horizontal and Vertical Analysis of Balance Sheet Items	Practice	Practical	Case Study
	Analysis of the Financial Sustainability of the Company	Practice	Practical	Case Study
	General Assessment of the Property Status of the Organization	Practice	Practical	Comprehensive Case
4	Analysis of Business and Efficiency of Financial and Economic Activity of Enterprise	Lecture	Training	Supporting Case
	Liquidity and Solvency of Enterprise	Practice	Practical	Case Study
	Business Activity: Concept, Essence, Analysis	Practice	Practical	Case Solution
5	Theoretical Perspective on the Nature, Essence and Content of Management	Lecture	Training	Supporting Case
	Management: Definition, Essence and Concepts	Practice	Practical	Case Study
	Development of Management Theory: Modern Approaches	Practice	Practical	Case Solution
6	Analysis of the Organizational Structure of Enterprise	Lecture	Training	Supporting Case
	Concept and Essence of the Organizational Structure of Management of Enterprise	Practice	Practical	Case Study
	Types of Organizational Structures: Advantages and Disadvantages	Practice	Practical	Comprehensive Case
7	Analysis of the Staff Composition of Enterprise	Lecture	Training	Supporting Case
	Role aspect of Interaction Between the Person and the Enterprise	Practice	Practical	Case Study
	Content and Process Theories of Motivation and Their Application	Practice	Practical	Case Solution
8	Research and Innovation in Management	Lecture	Training	Supporting Case
	Organization of Innovation Management	Practice	Practical	Case Solution
	Innovation Management and Strategic Management	Practice	Research	Comprehensive Case

Three main types of cases were used in the discipline: teaching, practice, and research. Auxiliary cases were used as tools in lecture-type classes, the main purpose of which was to convey information. Three case formats were used in the practical type classes: exercise

cases (requiring quantitative analysis), solution cases (requiring development of a number of valid approaches) and comprehensive cases (requiring a comprehensive approach to the analysis). The use of case study exercises for the current and intermediate control allowed to increase the objectivity of practical skills assessment.

The results of case method implementation in the study of a particular discipline are presented in Figure 1.

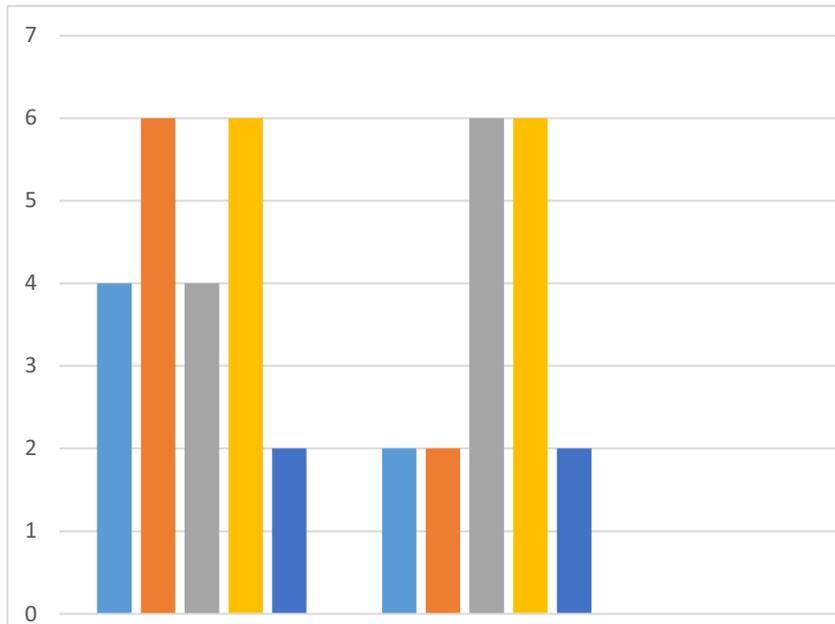


Fig. 1. Correlation of results of case method implementation based on student and instructor survey

The survey conducted will identify the main results. The students of M1/BO17-2 Group identified the development of critical thinking and acquisition of the skill to analyze complex and unstructured systems as the main advantages of using the case method. At the same time, the teacher of the course unit singles out the development of strategic thinking and the formation of analytical abilities in systems analysis as the main achievements of students.

4 Conclusions

As the main disadvantages of using the case method, students identified a high level of complexity of some types of cases and decreased motivation in case of failure. The instructor highlighted the labor-intensive nature of case assignments.

To summarize, it should be noted that the case method can be applied only as part of a comprehensive approach. As positive aspects, it is necessary to emphasize activation of the process of critical and analytical thinking development among students of economic specialties and focus on interactive strategy in teaching future managers. The use of the case method focuses more on practical skills, reducing the total amount of time needed for their sustainable formation. At the same time, it is necessary to clearly distribute the place of the case method in the training system, and implement it only in conjunction with other methods of training, allowing to form and consolidate the system knowledge of economic disciplines.

References

1. M.D. Ilyazova, D.Y. Tulepbergenova *Case Study as a Method of Creating Educational Professionally Oriented Situations: Situational and Contextual Approach* // Siberian Pedagogical Journal, **2** (2013)
2. G. K. Zhaksyngulova, A. Nurpeisova *Use of Case Study Method in the Competence Approach in the Training of Students in Management* // Bulletin of Asfendiyarov Kazakh National Medical University, **2** (2011)
3. L.L. Malkova, A.A. Kolaev *Possibilities of Using Case Technology in Teaching the Disciplines Specialized in Personnel Management.* // Penitentiary Science, **3 (39)** (2017).
4. European Parliament and the Council. Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for Lifelong Learning, 111. (2008)
5. S.V. Tereschenko, M.K. Zagorskaya *Case Method Application in Teaching Students for Entrepreneurship in Europe* // Problems of Science, **5 (87)** (2017).
6. T.P. Grass, V.I. Petrishchev, E.S. Latynina *Formation of Entrepreneurship and Entrepreneurial Culture of Schoolchildren in the USA and China as a Pedagogical Technology* // Bulletin of Astafiev Krasnoyarsk State Pedagogical University, **3 (37)** (2016).
7. I. Kh Bagirova., B.S. Burykhin *Case Study as Interactive Method in the Education of Students of Economic Specialties in the Study of the Personnel Management* // Bulletin of Tomsk State University. Economics, **3 (19)** (2012)
8. A.S. Bakhtina *Problems Related to Case Study in Educational Process* // Vectors of Well-Being: Economy and Society, **2 (21)** (2016).
9. M.N. Rassadina *Implementation of Practice-Oriented Approach in Professional Training of Cadets Specialized in Personnel Management* // Penitentiary Science, **3 (43)** (2018)

Benchmarking of University teachers' professional development: successful European, Chinese, and Russian practices

Tatiana Tregubova

Institute of Pedagogy, Psychology and Social Problems, 420039, Isaeva St. 12, Kazan, Russia.

Abstract. In the context of socio-pedagogical transformations of higher education organizations, the modernization of the system of teachers' professional development becomes an integral component of the reforms. Today university teachers have to be ready for continuous development and advanced training throughout their lives. Thus, the study of the problem of university teachers' professional development in Russia and abroad is very relevant and timely as a response to the modern requirements of civil society for the personality of the teacher. The need for professional development among university teachers is closely related to his (her) desire for more successful indicators in teaching activities. To do this, it is necessary to fulfill several pedagogical conditions, including the teacher's own awareness of the need for professional development; the interest of the university administration and the availability of resources to organize an effective professional development system, etc. The purpose of the article is to show some successful practices of the teachers' professional development in Russian, Chinese and European universities which the author observed while visiting those universities within the realization of the project "Enhancing teaching practice in the universities of Russia and China". The article presents the possibilities of benchmarking in higher education, in particular, the use of the benchmarking technology as a method of studying the effective practices of organizing the teachers' professional development in a modern university.

1 Introduction

The processes of globalization and international educational integration, the substantive characteristics of which include the intensification of international cooperation among universities, their effective interaction and interdependence, the virtualization of many areas of university activities and new types of interaction of regional and global practices, actualize the need of universities to maintain their competitive position in the educational services market through the use of new tools to ensure the quality of higher education, the availability of multiple formats for obtaining competences and introduction of dynamic interdisciplinary educational programs in accordance with the requirements of the global labor market [1, 2, 3]. All these factors have essentially increased the requirement to the higher education system and the challenges to teaching personnel, to their readiness for

constant professional development within implementation of the Concept of Life Long Learning (LLL) in the Russian higher education.

Experiencing the influence of modern trends in the development of higher education, the system of teachers' professional development has become both their active participant, a catalyst, and a driving force. This causes the need to rethink the substantive characteristics and technologies for improving professional skills and professional retraining of university teaching staff. "New" professional roles (a teacher-tutor, an educator-facilitator, a teacher-researcher) require the reforming of the system of teachers' professional development, which should meet modern global and regional challenges, the state and public initiatives set before pedagogical education by the Russian National Project "Education" and all documents adopted in its development, and should be based on fundamentally new substantive and technological approaches.

Since the process of teachers' professional development continues throughout his professional activity, this process is very important in the framework of formal, informal or additional training. "The implementation of the cognitive paradigm of higher education assumes that innovative models of teachers' professional development should be designed, on the one hand, taking into account the social order of the system of advanced training, on the other hand, provide for the formation of mechanisms for intra-personal motivation of teachers on: professional growth, creating a situation of success not only among students, but also among teachers themselves, on the development of hard- and soft- competencies, improving the quality and efficiency of pedagogical work "[4, p. 89]. However, the analysis of special literature on this problem shows that the traditional models of the advanced training system used in Russian universities are often template stable and resource-cost due to inefficient investments in the systems of professional development of higher education teachers [5, 6, 7]. Implementation of the European experience of organizing a system of teachers' professional development can serve as a resource and guideline for increasing the effectiveness of reforming the domestic system, successfully transforming the best foreign practices and innovative useful information.

To conduct various comparative studies in the field of higher education, today there are many platforms, ratings and comparison technologies that allow us to identify the adaptively educational potential of a successful pedagogical phenomenon and the possibility of its implementation in the domestic education system. Here, Benchmarking Technology may be widely used as a tool for analyzing successful practices, identifying the best experience based on its comparison with similar organizations to increase (strengthen) the competitiveness of their own organization [8-11].

Benchmarking is a fairly popular technology used by European universities and credit agencies in order to control the quality, to improve organizational indicators of education and reengineering of business processes. However, the systematic use of benchmarking as an independent tool for assessing the effectiveness of the teachers' professional development in Russian universities is fragmented and small. And if earlier this was due, first of all, to the empirical ignorance of that problem, now this is due to the lack of conceptual research. In other words, there is a certain delay in the theoretical understanding of the effectiveness of using this technology in improving the system of professional development of university teachers in the partner countries of Russia within Bologna process, while studying the experience of solving educational problems in other countries allows Russian educators to make a more meaningful and adequate idea of the domestic system. This fact also demonstrates the relevance and timeliness of the issue discussed in this article. Therefore, it is necessary to overcome the old biases and new stereotypes associated with ignoring, or not carefully studying, from a certain professional angle, the real successes and problems of European colleagues in the field of improving the system of

teachers' professional development and the use of modern technologies for comparative research in higher education.

2 Methodology and methods for the research on benchmarking of teachers' professional development

This study was aimed at identifying, using benchmarking technology, the most successful practices and finding a certain "standard" - "best of the best" in the field of professional development of teachers, to identify and analyze certain methods and strategies in achieving this standard.

A review of scientific literature and pedagogical sources on this issue included an analysis of available reliable sources of information on the problem, a number of articles and publications published in Russia and abroad. On the basis of the comparative pedagogical method, more than 30 definitions of the phenomena "benchmarking" and "benchmarking project" were identified, highlighting one or another facet of this technology. Such diversification suggests that there is no one-size-fits-all approach to determining the content and structure of benchmarking as an educational phenomenon, as it is a complex system of interrelated elements. There are differences in the interpretation of its components, in the types of benchmarking, in the directions of its use (more than 25), in the step-by-step implementation of this technology, in the choice of priorities and criteria when organizing comparative research, and, therefore, in the level of professional excellence of its implementation in the activities of the university administration or special agencies.

One of the most cited sources on this topic is the 1999 work of R. M. Epper entitled "Applying benchmarking to higher education: Some lessons from experience". This text defines benchmarking as a way of self-assessment and learning from the experience of others in order to improve their own activities, provides a detailed description of the types of reference analysis and the possibilities for its application in the higher education system. According to the author, benchmarking acts as a "trigger" ("trigger") more for internal analysis and assessment of the quality of higher education than as an external audit of the compliance of activities with standards and requirements [10].

D.V. Alstete argues that benchmarking helps overcome resistance to changes within the university/ He recommends an algorithm for external assessment of the university's activities, and also emphasizes the importance of creating new networks and connections between universities for the exchange of valuable information and practice [11]. According to C. Garlik and G. Pryor, the regular application of the benchmarking method allows us to have timely information about competitors and trends in the development of the educational sphere in their country, as well as in a concrete educational space [12].

Getting acquainted with various interpretations of benchmarking [13; 14] and an analysis of problems in its application in European universities, the characteristics (structure, components, requirements, definitions) of the components of this technology in the ideas of foreign researchers, which sometimes looked side-by-side or for granted, but they are by no means spelled out in the domestic pedagogical literature.

Based on the phenomenological approach, the essence and description of externally observed, variable characteristics of the use of benchmarking technology in assessing the activities of foreign universities were analyzed, and many paradigm and ideological "layers" were recorded, which indicates dominance at different stages of apologetics of socio-political or institutional points of view [15-17].

Despite this diversity in benchmarking definitions, all definitions include three main elements (steps) in benchmarking analyses, which are performed in the following order: 1 -

finding and identifying successful best practices (experiences); 2 - systematic training from others; 3 - changes in the functioning of the university.

The Russian scientific community is also discussing the definition of the "benchmarking" phenomenon and the allocation of activities for the use of benchmarking technology, which is characterized as a useful, effective and understood means of remaining competitive in the international market of educational services [18, 19]. Presenting the definitions of various scientists and combining the rational essence of the investigated variants, the article gives an author's understanding of this term.

3 Analysis and Results

In recent years, interest in the use of educational benchmarking has increased significantly, which is largely determined by the integration processes that are taking place in higher education in Russia, in China, and in the countries of the European Commonwealth. Educational benchmarking is evaluated as a response to the strategy of the Bologna Process countries to develop international cooperation and partnership in ensuring the quality of higher education in order to use the comparable methodologies and criteria in conditions of increasing competition among universities and the need to identify "best practices" to stimulate the exchange of relevant information on improving their educational activities.

Benchmarking accompanies almost all integration processes in various areas of higher education and its structures. With the growing popularity of educational benchmarking, the number of its definitions has increased, and such diversification is explained by the wide variety of subjects, and goals of benchmarking projects. "Key benchmarking ideas are: identifying best practices; obtaining the necessary information through appropriate self-assessment methods; work on self-improvement through the implementation of changes aimed at achieving and exceeding the established norms" [18, s.29]. By using benchmarking, it is possible "with its help to raise the questions about specific examples of successful introduction of innovations, as well as to analyze characteristics why these examples are successful and effective" [4, s.96].

The author's definition of educational benchmarking consists in understanding it as "an innovative technology for competitive analysis, measuring and comparing the results of the activities of leading educational organizations in order to search for the best pedagogical practices and effective models of education with their subsequent successful adaptation to develop development strategies, to increase competitiveness, and to increase the investment attractiveness of the educational organization at the educational services market" [4, s. 93]. The objects of the benchmarking project here can be the organization of systems for advanced training and retraining of teachers, internationalization of teacher professional development programs, models of professional development and teacher satisfaction with teaching activities, etc. Benchmarking answers the question "Why are they the best?" Benchmarking allows to determine the strengths and weaknesses of other universities - participants in benchmarking projects, and then choose "number one" strategy for promoting their educational "product" or educational service.

The typology of educational benchmarking is also diverse, in which the most authors distinguish between associative, functional, competitive, general, and other types of benchmarking, which can be used both independently and comprehensively or in various combinations. Educational benchmarking in practice is implemented in the form of a "benchmarking project" according to a certain algorithm in several interconnected steps, the number of which is determined by the organizers of benchmarking, and it depends on the field of application and the desired level of detail.

The participation of the Institute of Pedagogy, Psychology and Social Problems (IPSP) in international educational projects within the framework of the ERASMUS + programme

stimulated the creation of the Center for International Cooperation and Academic Mobility at the Institute to increase the effectiveness and quality of scientific and methodological recommendations and developments, their demand by the international pedagogical community, and also provided a "platform" for the implementation of innovative educational "products".

As we have already pointed out, the problems of assessing the activities of the university and improving the system of teachers' professional development are very acute, and international project activity due to its integrative character and multiplicity of effects (the so-called phenomenon of "spin-off effect") makes a significant contribution for solving these problems through the development of joint scientific research and their demand in the service export market through academic exchanges and the development of the university's collaborative potential.

As an example, we will present some of the results of the Russian-Chinese-European project "Benchmarking of successful models of university teachers' professional development" which started at IPPSP in 2019 within the ENTEP project. This project is aimed at identifying successful practices of professional development of university teachers in order to find the best experience and develop recommendations for its use in Russian universities.

Following the step-by-step implementation of benchmarking technology, *at the first stage*, the process of professional development of university teachers was determined for comparative analysis, conceptualization and possible adaptation of the best practices of professional development of university teachers identified using this technology.

At the second stage, potential benchmarking project partners were identified; whose readiness to provide the necessary information and cooperation determined the type of benchmarking project and the success of comparative methods. European and Chinese universities were selected because they are IPPSP partners in the international consortia of the ERASMUS + Programme, and the IPPSP staff was able to visit those university within the ENTEP project life. Among them are the University of Bologna (Bologna, Italy), Dresden Technical University, the University of Coimbra (Portugal), University of Hildesheim (Hildesheim, Germany), Sanya University (Hainan, China) and Private Hualian University (Guangzhou, China). The framework and topics of the benchmarking project were defined, visits to partner universities took place, questionnaire forms and interviews for comparative research were prepared.

Numerous talks to the teaching staff of these universities as well as analysis of materials, provided by universities sites, and also the special observation during the visits have proved the importance and the necessity of the constant professional development of teachers for the enhancing the teaching practice and the competitiveness of the university on the whole.

At the third stage, which is currently ongoing, a comparative pedagogical analysis of data obtained through questionnaires, interviews, expert assessments and presentations of cases of European universities - carriers of successful practices of professional development of teachers is being carried out, as well as results that are of some interest to Russian higher schools are highlighted. So, it should be noted that in connection with the new increased requirements for the professional and personal qualities of teachers, to which challenges have also been added in connection with the COVID-19 pandemic, a total on-line system of "re-education of educators" has actually developed in European and Chinese universities, which is carried out by the Centers for Pedagogical Excellence, Centers for Technical Support of Education, Centers for Advanced Training and Professional Development, etc. The educational programs of these centers include courses such as "Skillful and Reflexive Teacher"; "Formation of a full professional"; "Teacher is an active leader in a multicultural society", etc.

A comparative study of the content and principles of program design in teachers' training centers at the universities made it possible to distinguish three main models which individualize the process of professional development of teachers, which at this stage are called as professional-pedagogical, socio-pedagogical and personality-pedagogical models. These three main models implement plans for the individual development of teachers with a predominant focus on the professional, social and personal dimension of the professionalism of a university teacher.

Pilot testing of the effectiveness of these models, their adaptation and implementation on "domestic soil", accompanied by the searches for conditions of transfer and implementation, capable of maintaining the utility and efficiency in the Russian higher schools, will be carried out *at the final, fourth stage* of the benchmarking project.

Conclusion

Currently, in some Russian universities, a fragmented experience of individualizing the professional development of teachers has spontaneously formed, the importance and significance of which in the conditions of transformation and integration of higher education is beyond doubt. In this regard, an appeal to the international experience of organizing this process can serve as a guide and resource to solve this problem in the Russian higher schools.

Undoubtedly, successful practices of professional development of teachers abroad can be applied in Russian universities under certain conditions, in particular, it is necessary to intensify partnership and socio-professional contacts of universities in order to disseminate innovative experience and initiatives; Improve the culture and traditions of self-evaluation of universities; To prepare teachers to use successful international educational practices adapted to Russian reality, etc.

At the same time, we emphasize that in the conditions of international educational integration, Russian university teachers today have great opportunities for free communication with educators from other countries, and within the framework of international project activities, they should more actively promote traditionally Russian authentic models and formats of professional development of university teachers.

References

1. I.N. Ainoutdinova, T.M. Tregubova, A.N. Khuziakhmetov, MJLTM, 7, 9/2. **431** (2017)
2. C. Evans, M.J. Harkins, D. J. North Am. J. of Psych., 10. **567** (2008)
3. G. B. Kleiner. University as an Ecosystem: Institutes of Interdisciplinary Management. Journal of Institutional Studies. **11** (2019)
4. R. Kh. Gilmeeva, A. R. Kamaleeva, A. S. Katz, E. Y. Levina, and all. Cognitive pedagogy: teaching aid, **228** (2020)
5. P. Luksha. Educational ecosystems for the development of society. Education 20. 35. Man. ASI (2017)
6. M. Kagan Philosophy of culture, Yu-raït, Moscow (2019)
7. Y.I Kuzminov, D.N. Peskov D.N. Discussion. Education issues. - Moscow, HSE, 3. **202** (2017)
8. M. Porter. Alpika Publisher LLC. **716** (2018)
9. Benchmarking in Higher Education . Society for Research into Higher Education & Open University Press. **258** (2006)
10. R.M. Epper, R.M. Applying benchmarking to higher education: Some lessons from experience. Change, 31(6). **24** (1999)

11. L.W.Alstete. Business Officer. **238** (2006)
12. S.Garlick, G.Pryor. Benchmarking the university: Learning about improvement. A Report for the Department of Education, Science and Training. Regional Knowledge Works. **98** (2006)
13. R.Maloy. Contemporary Issues in Technology and Teacher Education, 16(2). **172** (2016)
14. E. Ossiannilsson. Society for Research into Higher Education & Open University Press. **258** (2006)
15. N.P. Stromquist. Publisher: Education International. **120** (2018)
16. M. Warschauer, Learning Inquiry, 1, 1, **41** (2007)
17. B. Eickelmann, M. Vennemann, EERJ, 16, 6. **733** (2017)
- 18.N.Y.Mishchenko . Pedagogical science and practice. 1 (18). **28** (2018)
19. O.N. Ponomareva. XXXVII International Scientific and Practical Conference "World Science: problems and innovations, Science and Education. **176** (2019)

Blended Learning Practices in Russian Higher Education: Benefits, Challenges, Perspectives

Marina Nikiforova

Ural State University of Economics, 8 Marta/ Narodnoy Voli St. 62/45, 620144 Ekaterinburg, Russia

Abstract. The COVID-19 pandemic and a forced lockdown in spring 2020 made us reconsider the way we deliver higher education. Today we are all adopting new teaching tools and methods and redesigning our materials to be meant for diverse educational contexts. The present paper deals with the phenomenon of blended learning, which is a relatively new approach in Russian higher education. We introduce and critically discuss the concept of blended learning and given our own experience and the data of the survey we have conducted we analyze the strengths and weaknesses of blended learning approach and assess the prospects of its implementation in Russian higher education.

1 Introduction

A forced shift to remote learning (synchronous and asynchronous) at all levels of education in Russia in March 2020 due to the COVID-19 pandemic is called by some educators a natural pedagogical experiment. As it turned out most education providers in Russia particularly those located in regions, were in fact completely unprepared to deliver educational programmes in a new format. Thus, serious problems of financial, technical, methodological, and psychological nature were to be solved in a matter of weeks and even days. Most important, all the stakeholders – education authorities, institutional leaders, teaching staff, students and their parents – all had to face the challenge.

The new academic year (2020-2021) for many higher education institutions in Russia began with another measure, which general idea was to combine in-person learning with remote (mainly online) learning in order to minimize the number of physical contacts inside the university but to still preserve some face-to-face interaction between students and teaching staff. Most educators call this mode of education delivery ‘blended learning’[1-8], though there are some who prefer the term ‘hybrid learning’ [9]. Whatever term is used it is quite evident that as with full remote in spring 2020, the new learning model in autumn 2020 became a matter of necessity for Russian higher education rather than choice. And though this time all the stakeholders were far better prepared to new learning scenarios, it was again a challenge to face since blended learning in Russian higher education was an innovation that lacked both theoretical and practical background.

On the basis of some theoretical approaches and our own practical experience we aim in this paper to introduce and discuss the concept of blended learning, to outline its pros and cons and to evaluate the prospects of blended learning implementation in Russian higher education. We hope that the research results presented in the paper will be of value for

institutional leaders and university teachers who are interested in the design, implementation and research into blended learning.

2 Materials and Methods

The paper uses general scientific methods of study: analysis, synthesis, deduction, generalization; special scientific methods: pedagogical observation and online-survey. The survey was created on Google Forms platform and contains both single-choice and multiple-choice questions. The survey was conducted at the end of December 2020 among the students of Ural State University of Economics on how they evaluated their experience of blended learning, which was organized at the university from September to December 2020. Altogether 70 students from first- to third-year of studies majoring in Information Technologies took part in the survey.

3 Results and Discussion

3.1. The concept of blended learning

According to the Guidance developed by the Quality Assurance Agency for Higher Education in June 2020, the term ‘blended learning’ can be applied “in several different ways to describe different models of delivery and/or student engagement” [10]. The Guidance emphasizes that “some institutions use the term blended as a generic term for provision that includes any element of digital learning. Blended is also associated with models of delivery which require students to engage with timetabled onsite learning activities across the academic year, in addition to engaging with digital learning activities between these times. It is also used where there is not a requirement for regular onsite attendance, but there may be options for students to attend in person should they choose (for example, residential study weekends)” [ibid].

Thus, when exploring blended learning practices we should bear in mind that the term itself may have diverse interpretations and different people may use it to refer to different things. That is to say, educators understand the idea of ‘blending’ very broadly: for some it can denote a mix of teaching methods, forms or/and approaches, for some a mix of digital technologies or/and electronic tools in the teaching process and so on.

Yet, according to S. Hrastinski’s comprehensive literature review [7], there are two most frequently cited interpretations of blended learning – by C. R. Graham [1], and D. R. Garrison and H. Kanuka [2]. C. R. Graham understands blended learning as systems that “combine face-to-face instruction with computer-mediated instruction” [1]. D. R. Garrison and H. Kanuka define blended learning as “the thoughtful integration of classroom face-to-face learning experiences with online learning experiences” [2]. Therefore, it is obvious that most scholars and educators focus on the educational context as the key element of ‘blending’ rather than on methods, tools, inclusivity, etc. But what is important here, in our opinion, is that the combination of these two types of educational context and consequently two types of education delivery cannot be perceived as merely a mix of classroom meetings with online sessions; blended learning should be understood as *a pedagogical approach, which provides a purposeful, well-designed, systematic, integrated combination of in-person with online learning activities and assessment procedures (synchronous and asynchronous); learning outcomes, teaching methods and assessment criteria being specified*. We also reckon that the crucial idea of ‘blending’ consists exactly in combining of two types of educational context so as to avoid (or at least minimize) the problems

related to computer-mediated and in-person education delivery modes while taking advantage of all the positive features of both.

In order to better understand the concept of blended learning one can also explore numerous blended learning models and conceptualizations, developed by experts from leading European universities [1-6, 8]. The models elaborate on various characteristics of blended learning and thus, can be relevant for those involved in module, course or programme design and evaluation.

3.2. Strengths and weaknesses of blended learning in Russian higher education

Though we do understand that in Russian higher education blended learning is still in status nascendi, we reckon that some general conclusions are to be drawn and theoretical statements to be made.

Therefore, reflecting on our experience and given the results of the online-survey we have conducted, we can assume that the key advantage of the considered approach compared to 'purely' online learning or in-person one, is exactly the combination of two educational contexts (two types of learning environment) and therefore, most effective practices within each of these in order to achieve the desired learning outcomes. That is probably the first and foremost benefit of blended learning as a pedagogical approach and a syncretic form of education delivery when considered in the framework of outcome-based educational paradigm. The benefit was mentioned by 90% of respondents.

Speaking of other benefits that blended approach provides, we should especially note inclusiveness (mentioned by 44% of respondents), accessibility (mentioned by 82% of respondents), flexibility (mentioned by 88% of respondents), and cost-effectiveness (mentioned by 76% of respondents), though these are not specific to blended approach alone, but common to all digital learning scenarios. In fact, today we are all getting more and more technologically dependent and higher education is no exception. Technologies in education are meant to facilitate and enhance learning, to make it more personalized, effective and accessible, while cutting expenses of both individual learners and education organizations.

As to the weaknesses of blended learning, they are in fact weaknesses and limitations of all computer-mediated approaches: when we are speaking about challenges that confront students and university teachers practicing blended learning models we imply problems and limitations that arise when it comes to online learning.

Thus, all the challenges one can face when practicing online and consequently blended learning too, fall into three big groups:

- 1) financial and technical problems of all sorts: bad technical conditions on campus, no stable Internet access especially in rural areas, students having no proper workplace or / and electronic devices (was mentioned by 40% of respondents);
- 2) problems of methodological and digital nature: teaching staff lacking digital literacy or incapable of using innovative methodological approaches to transfer educational content, a badly-elaborated course-design, low-quality digitalized educational content, teaching methods that do not work in online settings, etc (was mentioned by 40% of respondents);
- 3) problems of psychological origin: students having a low level of responsibility and self-regulation, both students and teachers unwilling or unready to interact in the context of digital transformations, etc (was mentioned by 32% of respondents).

We should especially note that 20% of the respondents did not face any challenges (or probably did not find them significant enough to be mentioned) while practicing blended learning. And yet, as our survey shows many students are still experiencing problems or

limitations of all sorts. Most important, some university teachers still feel they lack pedagogical and digital skills required for high-quality education delivery in a new context.

Of course, since March 2020 when we all had to convert to remote learning suddenly and involuntarily, the situation has improved significantly and today students, teachers and institutional leaders are far better prepared for learning and teaching in new contexts. And yet, as the survey shows there are still challenges to be taken. Thus, we believe that if blended learning is to be practiced on a regular basis, institutional leaders have to ensure that all necessary support is in place for both students and university teachers – from solving technical problems to providing the teaching staff with specific training [11].

Bearing in mind all the challenges to be taken, we should emphasize that the percentage analysis of pros and cons mentioned by students of USUE proves that most students consider blended learning to be a positive innovation in Russian higher education. What is also important is that most students evaluate their overall experience of blended learning as a positive one. Thus, besides the multiple-choice questions related to strengths and weaknesses of the considered approach we asked them to answer a few single-choice questions so as to understand their general impressions of blended learning experience. The questions and percentages are presented below.

1. To what extent are you satisfied with the blended learning system organized at USUE in the period from September 2020 to December 2020?

Completely satisfied – 20%

Satisfied rather than not – 44%

Satisfied only about several disciplines – 20%

Completely unsatisfied – 16%

2. To what extent are you satisfied with the quality of content transfer from the teacher to the students during online learning periods (workshops and lectures in Microsoft Teams and assignments to be done and submitted to the corporate e-learning platform)?

Completely satisfied – 20%

Rather satisfied than not – 48%

Satisfied only about several disciplines – 32%

Completely unsatisfied – 0 %

3. To what extent are you satisfied with the quality of interaction between the teacher and the students during online learning periods (workshops and lectures in Microsoft Teams and assignments to be done and submitted to the corporate e-learning platform)?

Completely satisfied – 24%

Satisfied rather than not – 44%

Satisfied only about several disciplines – 24%

Completely unsatisfied – 8%

4. To what extent are you satisfied with the quality of assessment tasks meant to evaluate your knowledge and skills during online learning periods (workshops and lectures in Microsoft Teams and assignments to be done and submitted to the corporate e-learning platform)?

Completely satisfied – 36%

Satisfied rather than not – 48%

Satisfied only about several disciplines – 16%

Completely unsatisfied – 0%

5. To what extent, in your opinion, were the teachers prepared to practice blended learning approach? From the digital literacy perspective (whether they know how to use a computer, the Internet, applications, etc.) and methodological perspective (whether they know how to present learning materials and use adequate teaching methods and forms in e-learning settings)?

All the teachers were completely prepared – 12%

Most teachers were prepared – 68%

Most teachers were completely unprepared – 16%

All the teachers were completely unprepared – 4%

6. Do you think that blended learning will be practiced in Russian higher education on a regular basis even when the COVID-19 pandemic is over?

Yes, I'm sure that blended learning will be practiced on a regular basis– 32%

I'm not sure, but I admit that blended learning can be practiced in some higher education organizations– 36%

No, I think that after the pandemic Russian higher education will convert back to 'purely' in-person learning – 24 %

I would prefer that higher education in Russia preserve 'purely' in-person learning – 8%.

Therefore, despite the existing problems and limitations most students perceive blended learning as an effective approach; most student are positive about their blended learning experience and believe that blended learning practices can be implemented in Russian higher education.

3.3. Perspectives of blended learning implementation in Russian higher education

Speaking generally of blended learning perspectives in Russian higher education, we assume that blended learning can be especially beneficial for students on Master's degree programmes (and sometimes for part-time students on Bachelor's ones), since it can enable them to better combine their work, studies and family issues. Most important, due to a relatively small study load and a limited set of courses, Master's degree programmes can be rather easily transformed and adapted to blended learning settings, though some course redesigning can be mandatory. The blended learning scenario for such programmes might be as follows: online-lectures (recorded or real-time) and classroom-based or online synchronous workshops, at which group work and discussions on the subject are encouraged; electronic tests are completed and assessed online, individual written assignments submitted to the corporate e-learning platform, and individual, pair or group projects presented in class; feedback on students' progress is provided both through online tools and during in-person meetings.

When considering blended learning implementation in a longer-term perspective and not only for part-time students, we should admit that the process will inevitably demand a lot of time and effort to take. This is due to the longer duration of any Bachelor's degree programme, a wider range of courses within the programme, a larger number of students and teachers engaged in the teaching process.

Therefore, since blended learning is a relatively new phenomenon in Russian higher education, while some European educators have been practicing it for decades already, we believe that the best European practices can and should be adopted in order to facilitate blended learning implementation in Russian higher education as well. Thus, we find relevant the European Maturity Model for Blended Education [8] developed in a partnership of seven European higher education organizations. The model can be applied to three levels of blended learning implementation: course, programme and institutional, each presenting a set of maturity dimensions and key principles of implementation. For instance, the course level consists of the following four dimensions and corresponding subdimensions: 1. course design process (selection of blended learning activities and their sequence; selection of blended learning tools), 2. course flexibility, 3. course interaction, 4. course experience (student learning, study load, inclusiveness) [ibid]. The model can be particularly handy for practitioners and educators involved in module / course / programme design and evaluation.

We as well consider essential that Russian educators take part in international projects in order to adopt the world best innovative experiences, techniques, methods, and ultimately find most adequate ways to integrate them into Russian educational contexts.

4 Conclusions

Given the literature research into blended learning, the results of the survey we have conducted, and our own practical experience, we can draw the following conclusions.

1. Blended learning is a broad term and can be interpreted in many different ways. Yet, most researchers and practitioners understand blended learning as a pedagogical approach and a form of education delivery, which implies a thoughtful combination of in-person and online learning activities.

2. Blended learning is rather an innovation in Russian higher education. Yet, it has been observed that blended learning can be beneficial for students in many ways. It contributes to inclusivity, accessibility and flexibility of higher education, while reducing expenses of both students and education organizations.

3. The weaknesses of blended learning approach are common to all e-learning scenarios and basically can be grouped as follows: financial and technical limitations, methodological problems, and problems of psychological origin.

4. The prospects of blended learning implementation in Russian higher education vary by the educational programmes. Thus, for example, Bachelor's degree programmes in order to ensure blended learning on a regular basis have to be thoroughly redesigned and transformed in many ways while Master's degree programmes can be far more easily adapted to 'blended' scenarios. In order to facilitate blended learning implementation in Russian higher education it is important that some best European practices be adopted.

Summing it all up, we should again emphasize that time has enabled us to see numerous benefits of digital technologies and reconsider the way we impart knowledge in higher education. Since March 2020 the situation has changed a lot: we have significantly improved our digital and methodological skills, we are actively adopting new methods and techniques and redesigning our learning materials to be presented in various educational contexts. And yet, there are still challenges to be taken. Thus, we believe, that implementing blended learning as a pedagogical approach and a form of education delivery is sure to be a hard but practically feasible task for Russian education institutions. For if we want to provide quality higher education in Russia we have to keep up with the world innovative approaches and educational trends and to meet the needs of both individual learners and the labour market.

References

1. C. R. Graham, *Blended learning systems: Definition, current trends and future directions* (2006)
2. D. R. Garrison, H. Kanuka, (2004), *Internet and Higher Education*, **7** (2004)
3. C. R. Graham, W. Woodfield, J. B. Harrison, *The Internet and Higher Education*, **18** (2013)
4. M. Bower, B. Dalgarno, G. E. Kennedy, M. J. Lee, J. Kenney, *Computers & Education*, **86** (2015).
5. R. M. Bernard, E. Borokhovski, R. F. Schmid, R. M. Tamim, P. C. Abrami, *Journal of Computing in Higher Education*, **26** (2014)

6. A. Norberg, C. D. Dziuban, P. D. Moskal, *On the Horizon*, **19** (2011)
7. S. Hrastinski, *TechTrends*, **63** (2019)
8. W.F. van Valkenburg, W.P. Dijkstra, B. de los Arcos, K. Goeman, V. van Rompaey, S. Poelmans, *European Maturity Model for Blended Education* (2020)
9. A. Cohen, R. T. Nørgård, Y. Mor, *British Journal of Educational Technology*, **51** (2020)
10. The Quality Assurance Agency for Higher Education, *Building a Taxonomy for Digital Learning: Guidance* (2020), <https://www.qaa.ac.uk/>
11. N. Wise, M. Vidrevich, I. Pervukhina, *E3S Web of Conferences*, **208** (2020)

Case-based teaching research of media management course

Yan Zhang*, Heping Li

School of Journalism and Communication, Jiangxi Normal University, 330022 Nanchang City, Jiangxi Province, China

Abstract. The Harvard case has made a profound contribution to business education around the world. The course of Media Management is about business. In order to improve its teaching efficiency, Media Management adopted case-based teaching, and integrates the question and answer teaching and the story teaching in the case-based teaching. It conducted a full course description in advance in the first two weeks of the term, introduced core concepts of media management, and then assigned research tasks for Chinese and foreign media enterprises. In the mid-stage, background, factual knowledge and conceptual knowledge were explained, related stories were integrated and case teaching and question-and-answer teaching were used to make the classroom more interesting and practical. In the mid-stage, We conducted comparative teaching for two majors, each of which has two parallel classes, One is in the presence of case-based teaching, and the other is in the traditional teaching. Results showed that case-based teaching could significantly improve students' academic performance. And the results also demonstrated that traditional teaching could improve students' academic performance moderately. Students' group shared their research reports at the end of the term. Students' group research report also enriched teachers' follow-up teaching resources.

1 Introduction

Education is the most sacred cause in the world, but it is also a perplexing cause. College teachers and students are largely helpless and confused. In college classrooms, at some point, students are the "victims" of the classroom, who have to endure the indoctrination of some boring teaching contents. Teachers may be ineffective in the classroom, who pay less attention to the structure of the content of the curriculum, transmit intensively information with hard work, but have to endure the absent-mindedness and indifference of students.

The essence of education is dialogue. Two masters in education of the East and the West, Confucius and Socrates, Both of them have used dialogue method in education. Confucius' dialogue took the form of questioning and answering to enlighten students' thinking and cognition, where students freely expressed their views or even debated with each other.

* Corresponding author: zhangyan2006@jxnu.edu.cn

The Analects of Confucius records the dialogue between Confucius and his disciples in the form of dialogue laced with narratives. Coincidentally, Socrates advocated the Socratic method throughout his life where questioning and answering were the soul and remain popular till today. Paul Freire, a world-renowned Brazilian educator and philosopher, once remarked that "Without dialogue, there is no communication; without communication, there is no real education." Freire argued that teachers should allow students to express their own "critical statements" to avoid silence in order to conduct a dialogue with students. Freire proposed for the first time that dialogue-based teaching should be applied in classroom[1]. Freire subtly combined personal anecdotes with detailed reflection in dialogue[2] and illustrated that dialogue was the key in teaching. Sages' understanding of dialogue-based education has given us a lot of enlightenment with regards to university classroom teaching.

In reality, college students tend to remain silent in dialogue, but it is suggested that teachers should use cases and stories related to curriculum contents to make the teaching interesting and to satisfy students. Let students become content in the classroom.

College teachers have the responsibility to interact with students well to improve the efficiency of teaching. The course of Media Management is a course about business operations. The Harvard case has made a profound contribution to business education around the world. "As professors, we have to distil complex business issues and bring them into the classroom, as students, they want to use these distilled experiences to make inferences." [3]says Michelle J. Roberts, a senior lecturer at Harvard Business School who leads case writing. So lecturers should choose good cases to ensure their utility.

Therefore, case-based teaching method was adopted to help students understand knowledge points and pave the way for teacher-student dialogues and student-student dialogues. In order to improve its teaching efficiency, a full course description was conducted in advance at the first two weeks. Besides, core concepts in media management were introduced to students who were also assigned to do investigate and survey about Chinese and foreign media companies which are chosen by them as a work group. In the mid-stage, background, factual knowledge and conceptual knowledge were explained, related stories were integrated and case-based teaching and question-and-answer teaching were used to make the classroom more interesting and practical. In the final stage, students shared their research reports in class, which might enrich teachers' Subsequent teaching resources.

2 Materials and methods

2.1 Materials

The teaching materials of media management mainly came from textbooks, reference books as well as cases and stories compiled by the teaching team. Videos of class instruction became the first-hand information for the teaching team to analyze the teaching effect and reflect on their teaching methods and design. In addition, suggestions and comments of supervisors at the school and college levels were valuable references for curriculum teaching analysis. Last, anonymous online evaluation of classroom teaching by students provides a window for the teaching team to learn about their teaching scientifically.

It can pro excellent feedback that the questionnaire surveys distributed among students and the comments given by students after the course, which can provide authentic feedback . The interviews with graduates helped the teaching team to revise their teaching to cultivate students' capabilities to adapt to the workplace requirements better in the near future.

2.2 Methods

2.2.1 Participants

The participants in Media Management were mainly junior students from the Journalism and Communication College, majored in journalism and advertising. Media Management Program was a compulsory course for them. The teaching team began to use case teaching since 2009. The present participants came from two classes of Grade 2017, with a total of 113 students (as shown in Table 1). All present participants basically had no professional knowledge of media management, but with basic media market knowledge. In order to ensure the smooth progress of teaching activities, the first two weeks of teaching activities, a full introduction of the course was conducted in order to improve students' understanding of the background knowledge of media management. Two classes of same major are parallel class, the difference between two classes in the same major is so small that it can be ignored.

Table 1. Information of participants.

Grade	Journalism	Advertisement
2017	29 from Class 1	27 from Class 1
2017	30 from Class 2	27 from Class 2

2.2.2 Instructional method & Video observation method

Various teaching methods were employed in media management course. They were case study teaching method, question and answer teaching method and story teaching. Question-and-answer teaching was integrated into case teaching, story teaching and lectures. The story teaching method is also integrated into the case teaching method.

At the same time, in order to observe the classroom teaching process anytime, anywhere, The whole teaching and learning process is recorded by two video cameras, one shooting teacher, another shooting students.

The process of teaching and learning in the classroom was recorded with one camera focusing on the lecturer and the other on students. The purpose was to observe classroom teaching and learning from different angles.

One class in journalism and in advertisement respectively were chosen randomly for case teaching and the other for regular lecturing without case study but based on textbook knowledge points. The process of teaching and learning in different classes is recorded. Students' classroom head-up rate and participation and engagement in the classroom question-and-answer session were compared.

But different class shared the same teaching objectives that were to help students to participate in concept learning, data analysis, problem solving and make reasonable decisions. In order to test the effectiveness of case teaching, the teaching team tried to integrate the course knowledge points into the relevant case.

Students' reports were videoed too with their consent so that video could be replied for further analysis of students' performance and interactions. All videos were taken with the student's consent and taken care of by the teacher with the sole purpose of classroom analysis. All video materials would be deleted within 2 months after the end of the course.

In order to collect students' love for different forms of teaching, an 6-item questionnaire (**Table 2.**) was designed to test students' subjective fondness for various teaching activities. A 5-point Likert scale was used. Fondness degree increases with each increasing number. The survey's Cronbach's coefficient is high ($\alpha=0.77$), indicating that the survey has considerable credibility. Generally students find case-based teaching more popular than traditional classroom instruction, reading textbook, course assignments, group presentations and structured question-and-answer sessions. But story-based teaching was the most popular among students.

Table 2. An 6-item assessment instrument for students

items	scores
1. How much do you like the teacher's traditional classroom teaching?(1-5)	
2. How much do you like the cases presented by the teacher?(1-5)	
3. How much do you like the teacher's choice of textbooks?(1-5)	
4. How much do you like the Q&A session designed by the teacher?(1-5)	
5. How much do you like the course assignment of the media company survey report undertaken by your group?(1-5)	
6. How much do you like the teacher's story-based teaching?(1-5)	

Note.on a 5-point Likert - type scale ranging from1(very dislike)to 5(very like)

3 Results and Discussion

3.1 Background knowledge is important

According to Bloom' s taxonomy[4], media management could be classified as shown in **Table3.**). Although the classification of Bloom's four main categories of knowledge is classic, background knowledge is very important for the learning of any course. Previous studies (Alexander, Kulikowich, & Schulze, 1994 ; Shapiro, 2004)[5,6] have shown that background knowledge plays an enormous role in reading comprehension. Background knowledge is what we call it domain-specific knowledge or thematic knowledge. [7]

Therefore, this course spent 6 hours in the first two weeks to introduce this course so that students could understand the basic conceptual knowledge, factual knowledge", "procedural knowledge", and "meta-knowledge knowledge" of media management. In the meanwhile, students could make use of the background knowledge as he key words to facilitate their research study in information retrieval at the end of the semester. Students were also encouraged to read widely on topics on media management. It turned out that developing students' background knowledge helped to lay a solid foundation for their courses and helped students to solidify their deeper understanding on topics related to media management.

Table3.Main categories and sub-categories of Media Management knowledge.

Main categories and Sub-categories	examples
A.factual knowledge -- Essential elements that students must know to understand a subject or to solve a problem	
A1.Knowledge of terminology	Cultural industry, media industry, content industry
A2.Knowledge of specific details and elements	Reliable sources of information (official website of the Ministry of Culture, official website of the Bureau of Statistics, annual report of listed media companies)
B.conceptual knowledge-Relationships between the basic elements that work together within a larger system	
B1.Knowledge of classifications and categories	The categories of property rights of media enterprises are divided into: public, private and state-owned
B2.Knowledge of principles and generalizations	Media enterprise content as the king, channel amplification; concentration economy
B3.Knowledge of theories, models and structures	Economies of scale, Diseconomies of scale, economies of scope, Diseconomies of scope; organization framework of media companies
C.Procedural knowledge - guidelines Methods ,inquiry, and guidelines for using skills, algorithms, techniques, and methods	
C1.Knowledge of course-specific skills and algorithms	can understand the media enterprise's financial results, can calculate the media enterprise's financing costs and project profits
C2.Knowledge of course-specific techniques and methods	Can Pay attention to the interview programs of media executives and collect information on their business strategy and business strategy
C3.Knowledge of criteria for determining when to use appropriate procedures	Can Determine under what circumstances to prioritize the use of creditor's rights financing; Determine under what circumstances equity financing is preferred,
D.metacognitive knowledge-Knowledge of general cognition and awareness and knowledge of self-awareness	
D1.Strategic knowledge	Knowing that the biography of a media entrepreneur is a blue book to obtain the historical growth trajectory of a media enterprise, and knowing that the official website of a media enterprise generally has its development memorabilia
D2.Knowledge about cognitive tasks, including appropriate contextual and conditional knowledge	Know the assessment requirements of media management courses, and know the cognitive requirements of different tasks;
D3.Self-knowledge	Know that presentation is their own strength / weakness; Know that doing data collection is their own strength / weakness Know that the construction case is their own strength / weakness Know that doing PPT is your own strength / weakness Know that clip a visual audio material is your own strength / weakness Know how to improve?

Note: The above table is adapted from the book, *A Taxonomy for Learning, Teaching, and Assessing- A Revision of Bloom's Taxonomy of Educational Objectives* (Complete Edition, Chinese version) (America)Lorin W. Anderson, (China)Xiaoping Jiang, Foreign Language Teaching and Research Press,22(2009)

3.2 Case-based teaching can significantly improve teaching

In the third week after the introduction of the same teaching content and teaching form, two journalism classes were tested for background knowledge. Due to the same teaching content and teaching forms, the difference between the achievements of the two classes is not significant ($M_{29}=86.51, SD_{29}=8.54$ VS. $M_{30}=85.57, SD_{30}=8.72, \text{Cohen}'s=0.11$, as show in **Table4.**).

But after the implementation of case teaching method, the analysis of the previous and post-test data showed that case teaching could significantly improve students' academic performance ($M_{\text{pretest}}=72.79, SD_{\text{pretest}}=14.59$ VS. $M_{\text{post test}}=86.09, SD_{\text{post test}}=12.17, \text{Cohen}'s=0.99$, as show in **Table4.**).

After the implementation of traditional classroom teaching, the analysis of the pre-test and post-test data revealed that case teaching could improve academic performance moderately ($M_{\text{pretest}}=72.08, SD_{\text{pretest}}=17.08$ VS. $M_{\text{post test}}=80.45, SD_{\text{post test}}=13.67, \text{Cohen}'s=0.54$, as show in **Table4.**).

In terms of post-measurement data of comparing case teaching and traditional classroom teaching, case teaching could improve academic performance in a moderate way ($M_{\text{case}}=86.09, SD_{\text{case}}=12.17$ VS. $M_{\text{lecture}}=80.45, SD_{\text{lecture}}=13.67, \text{Cohen}'s=0.44$, as show in **Table4.**).

Table4. Means and SDs of Background Knowledge, Pretest and Post test Scores in Different of the version of the content in Media management course for Journalism

Background knowledge			Teaching form	pretest		Post test	
M	SD	N		M	SD	M	SD
86.51	8.54	29	Case-based	72.79	14.59	86.09	12.17
85.57	8.72	30	Textbook-based (traditional lecturing type)	72.08	17.08	80.45	13.67
86.03	8.56	59	Total	72.43	15.77	83.22	12.84

Similar results were obtained in two parallel classes of advertising major.

In the third week after the introduction of the same teaching content and teaching form, two advertising classes were tested for background knowledge. Due to the same teaching content and teaching forms, the difference between the achievements of the two classes is not significant ($M_{27-1}=85.69, SD_{27-1}=8.79$ VS. $M_{27-2}=85.13, SD_{27-2}=8.67, \text{Cohen}'s=0.064$, as show in **Table5.**).

But after the implementation of case teaching method, the analysis of the previous and post-test data showed that case teaching could significantly improve students' academic performance ($M_{\text{pretest}}=70.96, SD_{\text{pretest}}=17.23$ VS. $M_{\text{post test}}=85.77, SD_{\text{post test}}=14.25, \text{Cohen}'s=0.94$, as show in **Table5.**).

After the implementation of traditional classroom teaching, the analysis of the pre-test and post-test data revealed that case teaching could improve academic performance moderately ($M_{\text{pretest}}=71.24, SD_{\text{pretest}}=16.81$ VS. $M_{\text{post test}}=80.07, SD_{\text{post test}}=17.60, \text{Cohen}'s=0.51$, as show in **Table5.**).

In terms of post-measurement data of comparing case teaching and traditional classroom teaching, case teaching could improve academic performance in a moderate way ($M_{\text{case}}=85.77, SD_{\text{case}}=14.25$ VS. $M_{\text{lecture}}=80.07, SD_{\text{lecture}}=17.60, \text{Cohen}'s=0.36$, as show in **Table5.**).

Table 5. Means and SDs of Background Knowledge, Pretest and Post test Scores in Different of the version of the content in Media management course for Advertising

Background knowledge				pretest		Post test	
M	SD	N	Teaching form	M	SD	M	SD
85.69	8.79	27-class1	Case-based	70.96	17.23	85.77	14.25
85.13	8.67	27-class2	Textbook-based (traditional lecturing type)	71.24	16.81	80.07	17.60
85.41	8.64	59	Total	71.10	16.86	82.92	15.86

3.3 The utility of the story to attract students' attention and boost their memory

Daniel asserted that good teachers shared the following qualities: 1. telling jokes, telling stories, and being gentle; being able to Attract the attention of students so that they are willing to get close to the teacher and into the classroom; 2. Being able to connect key points so that students could comprehend and remember them. He thought that the human brain preferred stories so much that psychologists sometimes thought stories have a "psychological advantage." Therefore, turning a teaching plan into a story is good for students' comprehension and memory[8].

Daniel T. Willingham thinks thought that most stories include four principles, often referred to as the "4C principle." Causality indicates that the event occurred with a cause and consequence. Conflict is formed between a target and the forces blocking the target. Teachers can prepare lessons around conflict, construct cases, and rewrite stories. Complications are the branches that will make the story more interesting. Characters are indispensable elements around whom a good story revolves. The key to express personality is action, through which storytellers portray characters.

Based on the 4C principles", the teaching team compiled a story based on the facts documented in a biography[9] about the significance of cash flow to the continued operations of media companies.

The timeline of the story went as follows: the boss went to buy companies, the CFO went to raise money, the banks to make loans and collect debts, the fairy came to the rescue.

Teacher: Do you know Murdock?

Student: Yes, the media magnet in news media (or confused, no)

Teacher: Good. Thumb up for you! (Praising is important for students) Do you know Wendy Deng? (The boom in social media is proof of the power of exchanging "gossip"[10]. The Teacher introduced gossip in the classroom to help attract students' attention)

Student: Yes(it turned out more students knew Wendy than Murdock).

Teacher: You're going to pay attention to the high profiles in the media industry as you're focusing on gossip. Murdock is a big shot in the media (Repeating students' answer is also a reward for students) . But he relied on Ann Ryan, a 34-year old vice president of Citibank to overcome the financial crisis of his company. Do you believe that?

Student: It must be so since you ask in such a way.

teacher: Smart! Call for you (Call is one of the "Top 10 Network Terms of 2017" to mean support. Using network language draws students closer to the teacher) ! News Corp. has been purchasing all along the way and merged and acquired many companies to become bigger and stronger and international. But where did the money come from?

Student: To loan from the bank.

teacher: Yes, from the bank! (to have eye contact with the student to acknowledge his answer) . News Corp. has an incredible CFO - Richard Salzen who joined News Corp. USA as Chief Financial Officer in 1974, He collected verbal commitments of \$2 billion and \$1 billion from Europe and the United States in just one day in 1998, and signed a written agreement within the same week. But borrowed money has to be returned with interest. News Corp used short-term loans to save interest expenses in the hope of converting short-term loans into long-term debts when long-term lending rates would be lowered. But it turned out that market interest rates did not fall but rise which brought about Murdoch's News Corp.'s huge financial crisis in 1990. Without cash to pay off its forthcoming debts, News Corp survived the storm with the Dolphin Rescue Plan of Citibank, News Corp.'s largest service bank and largest creditor. For 10 years up to 1990, Murdoch was committed to mergers and acquisitions, leaving debt management to Richard Salzen, who had been News Corp's treasurer for more than a decade, and then Dave Devo, who replaced Richard Salzen during News Corp.'s financial crisis for his lack of financial warning.

The key to telling a story in conjunction with the course knowledge point is to adjust, and in the process of adjustment, you need to find that one part of the story works, some parts need to be polished, some parts need to be discarded, which will make the story more popular, more interesting, and the key is to associate with the knowledge point. Stories are masters of attracting attention.

Stories not only attract students' attention, but also create long-term memories. "I remember the importance of cash flow because my teacher told me the story about Rupert Murdoch turning to the vice president of Citibank for help in 1990 when he was in financial crisis. I also shared the story to friends who were running short of cash because they were investing in houses and shops" the 2010 graduate, who was a junior at that time, said in a remote interview. Similarly, the remaining four graduates also mentioned stories and related knowledge points that they remembered in class that year. It is worth the hard work of finding the story and adapting the story to the teaching content.

3.4 Attracting attention and improving heads-up rate in the classroom

Classroom head-up rate refers to the ratio between the number of students who listen carefully to the total number of students during class. Many colleges and universities use it as an important measure of classroom quality in China.

As teachers, you know that changes or shifts in the classroom can keep students active and re-focus their attention. If the teacher has been speaking, then a little visual stimulation (such as a video or a picture) can make a good difference - the students look up.

From the lectern, the teacher can get a rough estimate of the head-up rate at a glance. A more nuanced way to count heads-up rate of the classroom: classroom video, after-class viewing.

It is difficult for teachers to fully observe the response of the class when they are teaching, and there is also the question of cost involved in having a class observer. The cheapest and most convenient way is to make a video of the class and view it yourself after class. In order to avoid the unnatural of teachers and students in front of the VCR, from the beginning of the course in the classroom can be filmed to the vast majority of the space in the classroom to set up shooting students' seats, students are required to sit within the scope of the camera, and inform students that the video is for teaching research to improve teaching, will not be used for any other commercial purposes, the video will be deleted within 2 months after the end of the course. At first, teachers and students weren't used to having classroom space for cameras, but after a few weeks, everyone got used to it and

almost ignored the camera. Usually after three weeks, teachers and students have no feelings about the presence of the camera. So the fourth week is the best time to start by video to see the student's class heads-up rate. A 40-minute lesson that looks at the student's head rate in the first minute, 6th minute, 11th minute, 16th minute, 21st minute, 26th minute, 31st minute, 36th minute, 40th minute. So there are aggregate 9 fixed time nodes to observe the student's heads-up rate, while setting some motorized point-in-time to observe. Generally choose the time point of general head-up, the time point of general head-down, analysis of the content and form taught by teachers before this point in time, in order to make reinforcement or improvement. In fact, any teacher should design and implement instruction based on the assumption that what students really want to do is play with their phones, read novels, or skip class.

Teachers also need to put themselves in students' shoes, teachers spoke in a dry and uninteresting way, no fun, why should students listen? Imagine the ideal classroom: so interesting teachers and students, in such an interesting classroom, teachers and students do interesting things together, how can the classroom be boring!

3.5 Praise students skillfully to inspire students' enthusiasm for learning

The teacher checked the student's work log and praised students' efforts not abilities on a process-based basis because of differences in abilities between individuals. praise students' attitudes to being responsible for their assignments, praise the details of students' assignments (PPT templates are good, background music is good, color schemes are good, pictures are used properly, and video clips are superb).

3.6 Research reports and course presentations by media companies conducted by student groups are a reflection of expertise and comprehensive ability

Research reports that go through at least 8 weeks of preparation time are produced by team members during the last 6 weeks of course, as the research reports are framed (Table 6.) Each framework corresponds to the point of expertise in the media management course, and the matching of information within each framework in their research reports reflects whether the student's understanding of the course's expertise is correct or not.

In the group presentation, can distinguish the group member's information collection ability, data analysis ability, the appropriate meaning interpretation ability, team work ability, the ability to manufacture PPT, the ability to edit visual audio footage, etc.

Table 6. Research report Framework of media company' management.

NO.	Research report framework
1	History of Media companies including their history of mergers and acquisitions
2	Structure of media company's organization(business, brands ,horizontal and vertical industry chains)
3	Businesses of media companies, revenues, and its distribution, business changes within 5 to ten years; asset value changes, market value changes; development in China and overseas
4	Management of media companies:including but not limited to media product operation, advertising operation, cross-media operation, capital operation and so on
5	Human resource management of media organizations
6	Technical management of media companies
7	Financial and property management of media companies
8	Management, support and restrictions on the country in which the media company operates

4 Conclusion

The results show that case teaching can significantly improve a student's academic performance (Cohen's=0.99 for journalism, Cohen's=0.94 for advertising), while the traditional teaching format embedded in the question-and-answer approach can moderately improve a student's academic performance (Cohen's=0.54 for journalism, Cohen's=0.51 for advertising). This is also in line with the teaching evaluation from students. The two levels of teaching supervisors from schools and colleges have given full affirmation to the case teaching method and question-and-answer teaching method.

Although case teaching can improve students' academic performance to a greater extent than traditional teaching, traditional teaching also has a significant positive impact on improving students' academic performance. Because the traditional teaching used in this study for testing is embedded in the question-and-answer teaching method, through the form of question-and-answer can still attract the attention of students, starting with attention, affecting students' understanding of knowledge, and then produce memories. Through question-and-answer teaching, stimulate classroom interactive teaching, training students to talk and express. In P. Freire's book *The Education of the Oppressed*, Freire puts forward the famous concept of "dialogue education". According to Freire, education is not about who educates who, nor about educating oneself, but about learning from each other through the world. Education is equal and interactive. Dialogue is a kind of liberation, not dialogue is an oppression. "[11]

Through dialogue, words such as "students-of-the-teacher" and "teacher-of-the-students" no longer exist, and new terms emerge: teacher-student and students-teachers. Teachers are no longer just teachers, in the dialogue with students, teachers themselves are also taught, students are being taught at the same time, in turn, are also teaching teachers, they work together to grow together. [12] When our teaching is based on dialogue and respect, students are more willing to be educated, learn faster, learn better, and achieve pleasant teaching.

It is beneficial to assign students moderately difficult homework, and solving problems that are too simple or too difficult can make people unhappy. Solving problems with moderate difficulty can bring pleasure. Pleasure comes from the process of solving a problem. Assigning students to study the operation and management of media companies in groups needs to find a lot of data. Relevant books, newspapers and periodicals, and relevant websites (including the official websites of media companies and industry websites) are well-deserved gold mines in the course learning process, especially when it comes to news. Gaye Tuchman believed news agency from the distribution of people want to know, need to know and should know the information, not only spread knowledge, and the normative knowledge. [13] Cui Di argued News is a kind of shared knowledge about human survival community or some kind of public life and news is a kind of knowledge that motivates people to share. [14] Students are also guided to pay attention to some WeChat public accounts, Weibo, official websites of media enterprises, interview programs, etc., so as to obtain information from them, so that they can learn factual knowledge anytime and anywhere, and learn to explain the core concepts of the curriculum with associated facts.

Because teachers in the early and middle of the teaching process have introduced many related cases, stories to interpret the core concepts of the curriculum. It's easy to follow suit, and in the course of their homework, they've trained teamwork, information search, data analysis, language expression, PPT production, audio and video editing, and so on.

Course teaching is a journey to seek knowledge, teachers and students accompanied by peers, teachers are the guide of knowledge tour, students can also have a surprising discovery from time to time, when students face difficulties and cringe, the teacher should encourage students to move forward, tell students to climb the mountain after the unique scenery!

To sum up, teachers with empathy to carry out teaching can effectively improve teaching. Empathy translates as "feeling the feelings of others". [15] Teachers pay attention to the feelings of students, feel the feelings of students, take appropriate action against the feelings of students, the action taken in this study is to implement case teaching, story teaching, question and answer teaching, Integrating story-based teaching and question-and-answer teaching into case-based teaching, to attract students' high concentration of attention, stimulate students' strong interest and cultivate students' positive emotions, as far as possible to ensure moderately difficult and pleasant learning process.

5 Acknowledgments (optional)

Thanks to Erasmus + Russian and Chinese Higher Education Teaching Practice Capacity Building Project

Thanks to Harvard Business Publishing Education for giving me a free faculty account to share their case studies.

References

1. P. Freire, *Teachers as Cultural Workers: Letters to Those Dare to Teach*, Boulder: Westview Press. **116** (2005)
2. Danie Schugurensky, Qiuxia Zhou, *Paulo Freire*, Heilongjiang Education Press, Harbin, China. **99** (2016)
3. Editorial team of the Harvard Business School Case Book of Management and MBA, Harvard Business School Management and MBA Case Book (set of 10 volumes) , Central Compilation Press, Beijing, China. **35** (2018)
4. W. Lorin Anderson, Xiaoping Jiang, *A Taxonomy for Learning, Teaching, and Assessing-A Revision of Bloom's Taxonomy of Educational Objectives (Complete Edition, Chinese version)* Foreign Language Teaching and Research Press. **22** (2009)
5. P. Alexander, J. Kulikowich, S. Schulze How subject-matter knowledge affects recall and interest . *American Educational Research Journal*. 31 (2). 313 (1994)
6. A. Shapiro How including prior knowledge as a subject variable may change outcomes of learning research . *American Educational Research Journal* , 41 (1). 159 (2004)
7. Neuman, S. B., Kaefer, T. and Pinkham, A. Building Background Knowledge, *Reading Teacher*, 68(2). **145** 2014) doi: 10.1002/trtr.1314
8. Daniel T. Willingham, Meng Zhao Why don't students like school? Jiangsu Education Press, Nanjing, China, **50** (2010)
9. William Shawcross, Xinzhi Fan Rupert Murdoch: The birth of a media empire. World knowledge press. Beijing, China, 240. **261** (2001)
10. Anthony Tasgal, Chaoying Yang, *The storytelling book*. China Friendship Publishing Company, Beijing, China. **76** (2019)
11. Zhicheng Huang, *Pedagogy of the oppressed - Freire's theory and practice of emancipation education*, People's Education Press, Beijing, China. **8** (2003)
12. P. Freire, *Pedagogy of the Oppressed (30th Anniversary Edition)* Jianxin Gu (translate) , East China Normal University Press, Shanghai, China. **44** (2014)
13. Gaye Tuchman, *making news* , Huaxia press. **30** (2008)
14. Cui Di. *Media Knowledge: Knowledge Research from the Perspective of Communication* . Shanghai: Fudan University Press. **32** (2019)

15. Daniel Goffman, Ping Wei Social Intelligence : The New science of Human Relationships, CITIC Publishing House,Beijing, China. 60 (2018)

Challenges to regional universities in Russia: The case of Ural Federal Okrug

Marina Vidrevich*, and Irina Pervukhina

Ural State University, 8 Marta/NarodnoyVoli Str., 620144, Ekaterinburg, Russia

Abstract. The paper aims to analyze the state of the higher education system in Russia and its role in the regional development. It also provides some recommendations on how to modernize universities, modify their functions and eventually integrate universities into the regional economy in order to lay down the foundation for a quantum leap in the implementation of the National Education Project at the regional level. It is shown that the way out might be creation of well-functioning co-ordinating bodies at the regional level that comprise the key regional actors including private sector and that take a long-term wider view of regional development, not just focusing on economic but also social, cultural and environmental development.

1 Introduction

The well-being of a society is largely determined by its capability to offer goods and services, as well as institutions and mechanisms for their development which satisfy consumers' needs and expectations and meet international standards. As countries are turning their production towards value-added segments and knowledge-intensive products and services, there is greater dependency on access to new technologies, knowledge and skills. Universities play several roles in their communities and one of their key functions is to support and drive regional, social and community development. With the parallel processes of globalisation and localisation, the local availability of knowledge and skills is becoming increasingly important. To score highly, universities should be active players, linked to their external environment by having a strong presence in the community [1].

Economic and socio-cultural uncertainty caused by the high dynamics of economic and social processes generates global risks at the macro level. The responses (both explicit and latent) to these challenges have occurred in the emergence of the Third Generation University with new goals and objectives [2, 3]. According to Wissema [3] in this phase, universities not only create professionals (first generation universities), professionals and scientists (second generation universities), but professionals, scientists and entrepreneurs at the same time (third generation universities). This is where not only education and research are significant but the utilization of knowledge created in universities is also crucial. Thus, third generation universities are expected to contribute to the enhancement of the competitiveness of a region through the enhancement of the competitiveness of enterprises [4]. Universities are becoming subject to fundamental change, evolving from science-based,

*Corresponding author: mbv@usue.ru

monodisciplinary institutions into transfunctional, economic entities, which beyond student training and publications are engaged in the production of revenues from its commercial activities such as technology and 'know how' knowledge transfer [5].

The paper aims to analyze the state of the tertiary sector in Russia and its role in the regional development. It also provides some recommendations on how to modernize universities, modify their functions and eventually integrate universities into the regional economy in order to lay down the foundation for a quantum leap in the implementation of the National Education Project at the regional level.

2 Trends in the development of higher education in Russia

Today Russia's higher education not only follows the global trends but considers local availability of knowledge and skills as an increasingly important factor.

The following trends underlie the development of higher education in Russia [6]:

- integration into the global educational space;
- complexity and inconsistency of embracing best educational practices in the country's tertiary sector;
- the threat to the national identity of higher education;
- regionalization of the Russian tertiary sector;
- uncertainty caused by the perspectives of further development of higher education.

Experts' opinions are polar: from the forecast of a 'bright future' to statements about the 'death' of the university as a higher education institution.

The Russian Federal government pursues the policy of providing priority support to a small group of universities which is made up of 10 federal universities, 29 national research universities, 11 flagship universities and about 20 other universities. This policy has led to the fact that the national and regional higher education systems are going through a bad stretch. The majority of provincial universities are facing financial, organizational and human resources challenges. Many demonstrate inefficiency and are on the verge of closure. Some come under threat of losing their independent status and being restructured as branches, or taken over by other educational organizations. This trend is most apparent in regional centres and towns (there are approximately 60 of them) where the university is the major employer. The closure or loss of control over a higher education institution (HEI) leads to an outflow of young people and intellectual capital, loss of prospects for sustainable development, attractiveness, and innovative potential of a region. As a result, prerequisites are created for the development of negative social, socio-economic and socio-cultural trends in a region. The main challenge regional universities are facing nowadays is the lack of resources for development, including limited financial, legal and organizational resources of regional authorities and the disunity of universities within the region. The problem can be solved by attracting private investment and building regional or/and macroregional networks of universities.

3 Interuniversity networking on the regional level

The Third Generation University should be an innovative and entrepreneurial structure that is actively involved in the life of society through knowledge transfer to human capital, intellectual property, innovative enterprises, industry, political institutions, etc. This structure may ensure continuous learning and technology transfer, beneficial to local authorities and regional business [7, 8]. For most Russian regional universities, facing financial and social difficulties, this is the only opportunity to stay afloat and develop successfully. Close connection with the local community is not only the key to survival, but also a chance to

tailor education to the realities of modern life, to improve the quality of teaching, to strengthen its practical orientation. International experience convincingly demonstrates how thoughtful and active interaction of the university with the local community can change the existence of the university and its perceived status in society.

The creation and development of regional university networks is a prerequisite for their existence at a time of social and economic uncertainty. Inter-university networks are defined as formal, multilateral, multi-purpose and voluntary cooperative arrangements between HEIs [9, p. 7]. It is a system of relationships between HEIs in the common space-and-time educational continuum that is influenced by mechanisms of implementing innovative projects targeting the content of teaching and learning, management and academic research [10]. This kind of interaction would exert a synergistic effect and significantly increase the resource capacity and efficiency of each partner.

The existing types of inter-university cooperation at the regional level are linear in nature. However, there is a pressing need for new forms and methods of inter-university collaboration that would be able to respond to the challenges of the Russian higher education system. On the one hand, these forms are expected to enhance the development prospects for each member; on the other hand, they would act as a driving force for the development of a regional higher education system and a region as a whole. A new form of inter-university collaboration may evolve as non-linear networking.

Inter-university networks are characterized by:

- the principles of openness, responsibility, trust, mutual interest; at the same time all member institutions retain their separate autonomy and identity [9];
- close connection between higher education, social institutions and new social practices;
- complexity of organizational processes and inter-institutional relations, due to a large number of partners engaged in inter-university networks and diverse areas of cooperation (e.g., education, science, culture);
- cooperation initiated by university management and academic staff via the existing informal contacts;
- complex time scope of network projects: cooperation may start long before the formal consolidation of contracts;
- the need to remain an on-going relevance and the capacity to change and adapt to new trends and shifting needs [11];
- integration and provision of resources (including financial and human resources);
- an ability to encourage and use innovations.

The adoption of a non-linear model of higher education development will help regions gain a competitive advantage in the global educational space, enhance the role of higher education in society, and turn it into a driver of region's social, economic and cultural development.

To illustrate the statement, we will analyze the state of higher education in Ural Federal Okrug (UFO) that includes Kurganskaya, Sverdlovskaya, Tyumenskaya, and Chelyabinskaya Oblasts; Khanty-Mansi Autonomous Okrug (KHMAO) and Yamalo-Nenets Autonomous Okrug (YANAO).

There are 102 HEIs (universities) located in UFO, among them are 45 state, 15 non-state and 42 branches of regional and national universities (Table 1). Six state universities of UFO are included in the RAEX-100 Rating of Russian universities (Table 2).

Table 1. Universities in Ural Federal Okrug (2020)

Region	Total	State universities	Non-state universities	Branches
Kurganskaya Oblast	8	4	–	4
Sverdlovskaya Oblast	44	18	12	14
Tyumenskaya Oblast	10	7	–	3
Chalybinskaya Oblast	28	11	3	14
KHMAO	6	5	–	1
YANAO	6	–	–	6

Source: <https://kurganobl.ru/spisok-obrazovatelnyh-organizaciy-vysshego-obrazovaniya-kurganskoy-oblasti><https://vuz.edunetwork.ru/>

Table 2. UFO universities included in the RAEX-100 Rating (2020)

University	RAEX-100 Rating	Functionality Rating	Region
Ural Federal University	12	4.0418	Sverdlovskaya Oblast
Ural State Medical University	89	1.9081	
Industrial University of Tyumen	71	2.0863	Tyumenskaya Oblast
Tyumen State University	66	2.1054	
Tyumen State Medical University	90	1.8992	
South Ural State University	58	2.2960	Chalybinskaya Oblast

Source: https://raex-rr.com/education/universities/rating_of_universities_of_russia

In terms of student admission and the Unified National Exam (UNE) average grade, UFO universities, primarily universities in Sverdlovskaya Oblast, rank No 4 (state-subsidized students) and No 8 (fee-paying students) among the 2020 Top-10 regions (Table 3), which means that they are ‘magnet’ universities for local as well as other regions’ school leavers. In future these graduates will enter the local labour market and contribute to a region’s human capital base [12].

Table 3. The Unified National Exam average grade in the top 10 regions of the Russian Federation (2020)

Rank	State-subsidized studies		Fee-paying studies	
	Region	UNE average grade	Region	UNE average grade
1.	Moscow and Moskovskaya Oblast	80.3	Moscow and Moskovskaya Oblast	69.3
2.	St. Petersburg	79.5	St. Petersburg and Leningradskaya Oblast	68.6
3.	Tomskaya Oblast	73.7	Republic of Tatarstan	66.9

Continuation of table 3

Rank	State-subsidized studies		Fee-paying studies	
	Region	UNE average grade	Region	UNE average grade
4.	Sverdlovskaya Oblast	73.5	Kaliningradskaya Oblast	66.2
5.	Republic of Tatarstan	73.3	Nizhny Novgorod Oblast	65.6
6.	Novosibirskaya Oblast	72.1	Tomskaya Oblast	65.1
7.	Krasnodar Krai	71.0	Krasnodar Krai	64.7
8.	Kaliningradskaya Oblast	71.6	Sverdlovskaya Oblast	64.1
9.	Yaroslavskaia Oblast	71.7	Bashkortostan Republic	64.0
10.	Kaluga Oblast	71.0	PermskiyKrai	64.5

Source: https://ege.hse.ru/stata_2020

However, despite its high research and educational potential, regional higher education systems are in many instances ill-suited to further development of a territory. One of the issues is to train specialists with skills needed in the domestic and international labour markets, with enhanced capacity for technological innovation. There is a need to acknowledge that the regional tertiary sector should be seen as a laboratory for innovative research projects and a source of financial resources to enhance the global competitiveness of the institution. HEIs have long seen service to the community as part of their role, yet this function is often underdeveloped. In regional development much depends on effective partnerships based on shared interests of HEIs with academic and sectorial science, private business, and the global educational system.

The strategic goal of developing regional HEIs is to engage them in several dimensions notably: knowledge creation through research and technology transfer; knowledge transfer through education and human resources development and cultural and community development, which can, among other things, create the conditions in which innovation thrives. The responses to this challenge can vary from region to region. For example, the Urals Research, Educational and Innovation Center (UREIC) is a formal cooperative arrangement between the leading UFO universities, with the Ural Federal University as a coordinating institution of the partnership. The member institutions determine the structure of the network, define the roles of each actor, prescribe the issues which are discussed and how they are dealt with and set the decision rules [13]

The creation of the UREIC will help to tackle three categories of tasks the regional university community is facing with, notably:

1) educational tasks: improved quality of education; strengthened students' employability; modern curriculum building;

2) research tasks: increased joint research; increased intellectual capacity of academics; increased access to funding opportunities; increased research cooperation with business and industry;

3) organizational tasks: capacity building of administrative staff; enhanced reputation and visibility of universities; improved organization and management within the university; enhanced regional socio-economic environment of universities.

4 Conclusion

Universities have different roles regarding the enhancement of competitiveness in regions with different competitive potential. The stronger the competitive potential of the region, the stronger third generation university functions are expected to be present. In contrast, in regions with relatively low competitive potential the presence of second generation university functions is sufficient [4].

In a context of globalisation, HEIs are observed to increasingly cooperate in international, domestic and regional inter-university networks. These networks promise favourable benefits, such as increased institutional competitiveness, access to larger academic environments, greater global visibility, improved service to students and extended organisational capacities.

A crucial step is to create well-functioning co-ordinating bodies at the regional level that comprise the key regional actors including private sector and that take a long-term wider view of regional development, not just focusing on economic but also social, cultural and environmental development. HEIs can play a key role in joining up a wide range of national policies at the regional level. These policies include science and technology, industry, education and skills, health, culture and sport, environmental sustainability and social inclusion.

References

1. A Guiding Framework for Entrepreneurial Universities. (OECD, 2012). URL: <https://www.oecd.org/site/cfecpr/EC-OECD%20Entrepreneurial%20Universities%20Framework.pdf>
2. A.S. Kisljakov, A.D. Ishhenko. Vlast [Power], **27** (6). 196 (2019). [In Russian]. DOI: <https://doi.org/10.31171/vlast.v27i6.6850>
3. J. G. Wissema, *Towards the Third Generation University: Managing the University in Transition* (Edward Elgar, 2009)
4. M. Lukovics, B. Zuti. SSRN (September 4, 2017). URL: <https://ssrn.com/abstract=3022717> or <http://dx.doi.org/10.2139/ssrn.3022717>
5. M.B. Vidrevich, I.V. Pervukhina. *Advances in Social Science, Education and Humanities Research*, **240**, 680 (2018)
6. G.E. Zborovsky, P.A. Ambarova. Integracija obrazovanija [Integration of Education]. **21** (3). 405 (2017). [In Russian]. DOI: <http://dx.doi.org/10.15507/1991-9468.088.021.201703.405-420>
7. T.A. Balmasova. High. Educ. Rus., **8-9**. 48 (2016) [In Russian]. URL: <https://cyberleninka.ru/article/n/tretya-missiya-universiteta-novyy-vektor-razvitiya/viewer>
8. M. D. Schelkunov. Vestnik jekonomiki, prava i sociologii [Bulletin of Economics, Law and Sociology], **1**. 187–192 (2017) [In Russian]. URL: <https://cyberleninka.ru/article/n/universitety-novogo-pokoleniya>
9. M.C. Fastner. *Inter-university Networks: Rhetorics vs. Reality Objectives and Activities of Members of the European Consortium of Innovative Universities* (Master's Thesis, 2016). URL: <https://essay.utwente.nl/view/domain/89.type.html>

10. G.E. Zborovsky, E.A. Shuklina, P.A. Ambarova. High, Educ. Rus., **12**. 34 (2016). [In Russian]. URL: <https://science.urfu.ru/ru/publications/нелинейность-развития-высшего-образования-контуры-концепции-и-воз>
11. A. Gunn, M. Mintrom. J. High. Educ. Policy Manag., **35** (2). 179 (2013). DOI: <https://doi.org/10.1080/1360080X.2013.775926>
12. T. Markova, I. Pervukhina, S. Pyankova. Scientific Works of the Free Economic Society of Russia, **211** (3). 559 (2018)
13. D. Marsh, M. Smith. Polit. Stud., **48** (1). 4 (2000). DOI: <https://doi.org/10.1111/1467-9248.00247>

Clearing the Final Hurdle: Getting Students to Engage with Feedback in Higher Education

Peter Wolstencroft^{1,*}, and Lean de Main²

¹Liverpool Business School, Liverpool John Moores University, Liverpool, UK

²Faculty of Business and Law, De Montfort University, Leicester, UK

Abstract. Higher Education within the UK over the last fifty years has increasingly been defined by the end product and this means that both students and lecturers tend to focus on the outcome rather than the process. For many students this means that assessments are seen as barriers to their final grade, rather than as a support to help them reflect on their performance. The purpose of this paper is to explore how students can become more engaged with the comments made on assessments. It concludes by suggesting that whilst audio feedback has proved to be successful in this respect, video feedback might well be an even better way of encouraging students to listen to what they are being told and then improve subsequent work.

1 Introduction

Defining the purpose of education has always been a matter of much debate. In the last fifty years in the UK, this debate has been amplified by two key events; firstly a speech in 1976 at Ruskin College by the then Prime Minister, James Callaghan, that explicitly linked education to the needs of industry [1] and secondly the passing of the 1992 Further and Higher Education Act [2] which sought to enhance education with best practice from the private sector, a process underpinned by the view that ‘If you can’t measure it, you can’t improve it’. Whilst the presupposition that by introducing ideas from the private sector you will make education ‘better’ in some ways might well be viewed as fundamentally flawed [3], that has not stopped it becoming deeply rooted in the current system. This approach which stresses measurement at all stages, was described by Ball [4] as performativity and has become the predominant view of how to describe the quality within a sector that is increasingly defined by its relationship with industry.

The importance of a defined end product that is almost always measured in quantitative terms, has been inculcated into the day-to-day lives of educators. Orr [5, 58] talked about how lecturers have learnt to be ‘fluent in the language of performativity’, in other words, they are aware of the significance of the ‘metrics’ that are used to describe the quality of the education provided. Measures such as the National Student Survey (NSS), the Postgraduate Teaching Experience Survey (PTES), the Graduate Outcomes Survey as well as a multitude of other quantitative measures such as pass rates and the percentage of students gaining

* Corresponding author: P.J.Wolstencroft@ljmu.ac.uk

'good' degrees are all used to define quality in UK education. This narrow definition is reinforced by the Office for Students (known as the OfS), the independent regulator of Higher Education in the UK, who list a variety of criteria they use to measure the quality of education, one to note is 'value for money'.

It is not just within the UK that quantitative measures are used to evaluate education. Successive governments in many countries have used exam pass rates to hail the improving quality of education in their countries. Within the last few months, President Macron in France hailed the record 95.1% of students passing their 'bacc' exams first time as "a triumph" [6], the US High School pass rates have reached a new high of 88% and in South Africa, the Education Minister hailed the record 81.3% pass rates as an outstanding achievement. Across the globe, the message is reinforced that the true measurement of success comes in quantitative form, often via the summative assessment at the end of the programme of study.

The focus on summative assessment as the single most prominent measure of success creates a transactional approach to education for many students. Tomlinson [7] discussed the oft-repeated phrase that students are now viewed as customers and although his suggestion that they should actually be viewed as consumers is more in keeping with the heterogenic sector that is education. It does imply an acceptance of the OfS's view that students are paying for a service, hence value for money is paramount and that there should be a defined end product to Higher Education.

The purpose of this paper is to explore ways to help students see assessment as an ongoing process rather than as a series of hurdles to explore how students can become more engaged with the comments made on assessments.

2 Assessment: a barrier to student's final grade?

Given the focus on quantitative measures, the implication that education should have a tangible end product and the view that students should be viewed as consumers, it is clear that assessment is something that is inevitably placed at the heart of the education process by both lecturers and students. However, the amount of training these groups have on this process is often minimal. A common complaint amongst lecturers is that students only focus on aspects of the curriculum that they will be assessed on. Ramsden [8] described how students are often focused on the end goal rather than any ongoing process and are liable to ignore anything that they perceive as not being of use in achieving their end goal. Common cries from students are 'will this be in the coursework' or 'tell me what I need to do to pass'. This focus on summative assessment means that individual assignments are perceived to be hurdles to be climbed over, rather than part of an educational journey. Once the hurdle has been cleared, then the danger for both lecturers and students is there will be a shift in focus to the next assessment rather than any reflection on the previous one [9].

For a lecturer this means that engaging students in assessment tends to be problematic. A previous study by the authors found that only a quarter of students at level four access any comments made by lecturers on their submitted work [10], yet almost all will check the overall grade soon after it is released. This lack of engagement with feedback is not limited to any particular group of students, indeed counter intuitively, one of the groups least likely to access comments are those who have recorded the highest grades. This is often linked to students feeling as though they have achieved their immediate goal and so they move on to the next hurdle.

Whilst it is easy to see this problem merely as one where students are not engaging fully with the process, this neglects a number of other factors that need to be taken into account before reaching a conclusion. The quality of many of the comments received by students has been raised as a common concern with too many generic comments being offered under

the guise of feedback or feedforward [11]. Given the increased numbers attending university in the last two decades, this can partly be ascribed to the pressure lecturers are under to mark the work and return it to students within a short time span, but it might also reflect a number of other factors. The increased use of electronically generated feedback ‘quickmarks’ has meant that instead of lecturers having to use their own individualised comments, they can assign pre-written comments to the work that they are assessing. In addition, the increased use of rubrics, tables designed to show students exactly why they have been awarded a set mark, have led to a change in the culture for lecturers when marking work. The transparency that is engendered by rubrics means that the repetition of words (so maybe ‘good’ for those achieving a grade of 60-69%, ‘excellent’ for 70-79%) has led to comments which tend to be judged as generic in nature about the work. It also means that aspirational ‘feedforward’ comments have focused on why students did not fall into the next category on the rubric. Whilst this would be useful for a repetitious assessment, the nature of university study means that the subsequent assessment is likely to test differing skills.

Given the seemingly intractable problem that we are facing – it is highly unlikely that the importance of final grades will diminish in the near future – the solutions offered require careful implementation. Firstly, it should be noted that student’s passivity when it comes to engaging in self-reflection is not something confined to Higher Education, it has been reinforced throughout their prior education through an ‘exam factory’ approach that stresses the importance of final outcomes [12]. Hence, for lecturers a key aspect is to change the frames of reference of students from seeing assessments as hurdles, to seeing them as being constituent parts of a whole, which flow into each other. This resetting of attitudes towards assessment needs to be embedded from the outset of their studies before patterns are engrained. Arguments for more student co-creation and authenticity in assessment design could be helpful in shifting students’ focus from assessment *of* learning to assessment *for* learning [13; 14; 15].

As part of the modification of students’ frames of reference, we also need to assess how our messages are delivered. If we accept the premise that the majority of students do not read any written comments given on their work, and that they find both rubrics and a majority of feedback comments unhelpful [16; 17; 18], then we need to find another medium with which to communicate with students and to engage with them.

3 Audio feedback: benefits of using

Audio feedback has been utilised to overcome many of the issues we have identified. A major advantage is that the number of students engaging with the lecturer’s comments rises significantly when comments are given in audio rather than written form. Zimbardi et al [19] found that 92% of first year undergraduates accessed their comments when they were presented in audio format. This represents a significant increase from the research on written comments but clearly, is only part of the story. If students do not find the audio comments useful then the number accessing them is of limited relevance. Thankfully, evidence suggests that audio feedback is seen to be of much greater benefit. Turner and West [20] identified that students found this communication method made feedback far more straightforward to understand. Wolstencroft and de Main [10] concluded that students were far more engaged with their feedback when it was given verbally but they did stress that it was important not to use it in isolation. Students needed to be prepared to receive the comments, otherwise they failed to understand the importance of using comments from each of their assignments in order to help craft future pieces of work.

An additional benefit of using audio feedback is the impact on academics. Most marking software limits lecturers to three minutes of comments and in the previously

mentioned research, academics reported the time taken in assessing students' work was substantially lower [10]. Despite the reduction in the time taken to complete the comments, the students' perception of the value of the feedback was that it was significantly more useful than the written version. As 'quickmarks' or rubrics are rarely used when given audio feedback, the comments were viewed as being far more individualised. Some students also mentioned that the comments felt far more personal, they could hear their lecturer and they believed that far more time had been taken in the marking which helped them further engage in the process and helped them comprehend the feedback provided.

4 Video feedback

Whilst audio feedback has been used in Higher Education for some time, video feedback is a comparatively recent innovation. Although Brick and Holmes [21] were early pioneers of the method, there is little evidence of it being in widespread use within Higher Education. Early indications suggest it can be of significant benefit to students, as well as being comparatively straightforward for lecturers to implement. Killingback et al [22] identified how using a medium that students were familiar with meant that they were more comfortable in viewing the feedback and also reviewing it, something that the authors noted did not happen with other forms of feedback.

West and Turner's work [20] highlighted the great advantages that video feedback has over its written counterpart. Not only did significant numbers of students prefer receiving it in video form they also felt far more engaged in the process. As with audio feedback, students felt as though there was more of a relationship with the person delivering the comments and as such, they felt far more emotional engagement with the guidance and comments provided. Given that the purpose of this paper is to explore ways to help students see assessment as an ongoing process rather than as a series of hurdles, then getting them engaged in the process, as well as ensuring that they receive high quality feedback from lecturers is clearly of great benefit. Whilst there have been dissenters to this view (for example Mahoney et al [23] stress that even though there are great benefits, in common with many other forms, it is still primarily used to disseminate information rather than to start a dialogue), the prevalent view is that video feedback can encourage students to engage in their assessment feedback as far more access the comments and also believe that what they receive is of high value.

5 Conclusions

Returning to the central premise of this paper. The educational environment in which we work is one where the pursuit of quantitative goals has become paramount. Whilst it is not our intention to critique this, indeed we have accepted that this is the case with only minimal comment, our aim is to identify how we can work within this environment to ensure that students are fully engaged in the feedback process.

Given that students have been part of a system that stresses quantitative success from the start, the first conclusion is that it is vital that their frames of reference are changed from an early stage. Whilst the numerical mark given is important, the process of assessment for learning rather than a series of hurdles to overcome needs to be stressed. This is also true for lecturers, many of whom will have been educated in the performative environment that currently exists in Higher Education.

Once students and lecturers have developed further proficiency in the way assessment and feedback can be designed and enhanced, the method of transmission needs to be looked at. Whilst traditional written feedback can be of great benefit if personalised to the learner

and if the learner engages. Successive pieces of research have identified only a minority of students engage with written feedback and so more innovative methods need to be considered. Audio feedback has many benefits for both lecturers (in terms of reducing marking time) and for students (who perceive it to be of much greater value). It is also the case that it is far more straightforward to personalise the feedback, and hence actively engage students in it, when delivering comments verbally.

Providing video feedback is an emerging area and where used, this has already proved a very good way of engaging learners. Being able to see the person giving you feedback personalises the message even more and students who have received video feedback have tended to play the messages multiple times, suggesting that they are actually engaging in the process and hence, seeing assessment not as singular activities that are designed to be hurdles to clear but instead seeing them as small parts of one big process that is far greater and more complex than merely a numerical value.

References

1. C. Chitty. *Towards a New Education System* (Lewes, The Falmer Press. 1989)
2. Department for Education. *Further and Higher Education Act* (London, HMSO, 1992)
3. C. Thompson, P. Wolstencroft. R. Post-Compulsory Educ., **23** (2), 213-230 (2018). DOI: 10.1080/13596748.2018.1444372
4. S. Ball. J. Educ. Policy, **18** (2), 215-228 (2003)
5. K. Orr. J. Educ. Teaching, **38** (1), 51-65 (2012)
6. A. Sage. *The Times* (8th July 2020)
7. M. Tomlinson. Brit. J. Sociol. Educ., **38** (4), 450-467 (2017). DOI: 10.1080/01425692.2015.1113856
8. P. Ramsden. *Learning to Teach in Higher Education*. (2nd ed. Abingdon, Routledge, 2003)
9. M. Price, K. Handley, J. Millar. Stud. High. Educ., 36 (8), 879–896 (2011). DOI:10.1080/03075079.2010.483513
10. P. Wolstencroft, L. de Main. J. Further High. Educ. (2020). DOI: 10.1080/0309877X.2020.1759517
11. D. France, A. Wheeler. *Planet*, **18** (1), 9–11 (2007). DOI:10.11120/plan.2007.00180009
12. F. Coffield, B. Williamson. *From Exam Factories to Communities of Discovery: The democratic route: 38 (Bedford Way Papers, 38)* (London, IOE, 2011)
13. N. Meer, A. Chapman. Bus. Manag. Edu. High. Edu. (2015). DOI: [10.11120/bmhe.2014.00008](https://doi.org/10.11120/bmhe.2014.00008)
14. E. Doyle, P. Buckley, J. Whelan. Teach. High. Educ., **24** (6), 739-754 (2019). DOI: 10.1080/13562517.2018.1498077
15. D. Wiliam. Stud. Educ.Eval., **37** (1), 3-14 (2011)
16. K. Chanock. Teach. High. Educ., **5**, 95–105 (2000). DOI:10.1080/135625100114984
17. N. Duncan. Assess. Eval. High, Edu., **32**, 271–283 (2007)
18. D. Carless. Assess. Eval. High, Edu., **34** (1), 79–89 (2009). DOI: 10.1080/02602930801895786

19. K. Zimbardi, K. Colthorpe, A. Dekker, C. Engstrom, A. Bugarcic, P. Worth, R. Victor, P. Chunduri, L. Lluka, P. Long. *Assess. Eval. High. Edu.*, **42** (4), 625–644 (2016). DOI:10.1080/02602938.2016.1174187
20. J. West, W. Turner. *Innov. Educ. Teach. Int.*, **53** (4), 400-410 (2016). DOI: 10.1080/14703297.2014.1003954
21. B. Brick, J. Holmes. *IADIS International Conference on Cognition and Exploratory Learning in the Digital Age*, (CELDA, 2008) https://www.researchgate.net/profile/Jasper_Holmes/publication/255585177_Using_screen_capture_software_for_student_feedback_Towards_a_methodology/links/5571613108aedcd33b2938ff/Using-screen-capture-software-for-student-feedback-Towards-a-methodology.pdf
22. C. Killingback, O. Ahmed, L. Williams. *Nursing Education Today*, **72**, 32–39 (2019). DOI: 10.1016/j.nedt.2018.10.012
23. P. Mahoney, S. Macfarlane, R. Ajjawi. *Teach. High. Educ.*, **24** (2), 157-179 (2019). DOI: 10.1080/13562517.2018.1471457

Cognitive dialogue as a factor of enhancing the quality of education in the conditions of international cooperation in the sphere of higher education

Larisa Mukhametzyanova¹

Institute of Pedagogy, Psychology and Social Problems, Isaev Str., 12, 420039 Kazan, Russia

Abstract. The relevance of the article is caused due to the need to define the role of a cognitive paradigm for enhancing the quality of higher education in the conditions of international cooperation contributing to the development of the subjects' of educational process possessing the human-forming, semantic priorities. The purpose of article is to reveal the human-forming individual reserves and mechanisms of cognitive dialogue between the teacher and the students on the basis of social-cognitive approach as the theoretical-methodological strategy determining and developing humanistic semantic formations and personality's value transformations. The article reveals the principles of social-cognitive approach: human-conformity and harmonious proportionality, and the rules for their realization; cognitive instruments of democratization and humanization of education are described on the basis of cognitive dialogue between the teacher and the students as an informative exchange of rational and emotional information. The author defines the importance of emotional intelligence as a link between development of humanistic meanings, value understanding, understanding and regulation of the subjects' of education cognition and emotions in cognitive dialogue affecting success of their socio-cultural interaction. The developmental stages of dialogical self-knowledge in the course of cognitive dialogue are defined in the integral unity of logical and emotional, and value coordinates based on the material of art works. The article is intended for University-teachers and researchers in the field of international cooperation in the sphere of education.

1 Introduction

The relevance of the research is caused due to the fact that the special position in the development of personality's new values, and cultural and behavioural practices in the era of digitalization is taken by value and semantic priorities of an educational system which defines that the learner is not only the holder of the professional knowledge, skills, but also the person possessing special human qualities and properties which allow him (her) to

*Corresponding author: lar_ur@list.ru

participate in the socio-cultural interaction. The outstanding German teacher-humanist of the middle 19th century Friedrich Adolf Wilhelm von Disterveg defines the education purpose as follows: "In each individual, in each nation humanity-oriented worldview has to be brought up: this aspiration leads to the noble universal purposes" [1, P. 136].

The cognitive paradigm of education is aimed at establishment of the value and semantic priorities of an educational system of higher education institution providing realization of its humanistic potential in the process of development the Human of knowledge in the era of digitalization. "We believe that it is possible to talk about the appearance of the cognitive paradigm of education which is based on the appeal to ways, types and technologies of processing information by the human for the purpose of creation of a personal system of representations, knowledge and competences for the definite subject sphere and one's own system of worldviews with transfer to generation of knowledge. The ability to transfer information into knowledge, "to create" knowledge, to generate new technologies is the main characteristic of the human capital requested by the economy. Subsequently, there appears a question to the educational system of higher education institution: How is it possible not to lose the personality and the Human in the era of digitalization? [2, P. 8]. The social-cognitive approach treated by us in terms of transformation of the processes for professional socialization and inter-personal interaction in the context of personality's value and semantic formations development acts as the intrinsic engine of a cognitive educational paradigm. "Social-cognitive approach is a theoretical and methodological strategy determining and developing personality's semantic formations and value transformations for the purpose of creation of his (her) human-forming and social qualities in the course of socio-cultural interaction" [3, P. 31].

In the era of digitalization, it is essentially important to create a significantly new organization of pedagogical processes and conditions for the development of the personal cognitive mechanisms providing formation of universal students' qualities (self-skills), the range of which will promote the finding of the solution for professional tasks. Namely "Human-forming" type of education is the global innovative reserve capable to change a situation in the modern educational organization in the direction of its humanization cardinally.

One of the key positions of social-cognitive approach is as follows: the personality comprehends the meanings in the reality of the objective world, culture and the speech by means of the social interaction defining an initial context of teaching in the educational organization of the higher education as determination of personlity's value and semantic transformations in the course of formation his (her) human-forming qualities and professional characteristics. The study and the human's development become essentially important in the context of realization of social-cognitive approach in variety of its cultural and semantic relationships with rapidly-transformed "digital" reality.

Key concepts of social-cognitive approach:

- *social-cognitive approach* - the theoretical and methodological strategy defining cultural and semantic, and value and humanistic priorities of the personality in the context of their harmonious proportionality with the humanistic settings of the society;

- *the principle of human-conformity* defines the existing regulatory of educational process as its cultural and semantic kernel of an individual conceptual sphere that assumes an accent on semantic formations and value transformations of the personality;

- *the principle of harmonious proportionality* opening a humanistic matrix for the development of the harmonious personality in the integral unity of cognitive stability, activity, clarity, "symmetry"; proportionality of personality's value and semantic settings to socio-cultural values;

- *humanistic cognition* as the manifestation of human's intellectual abilities including humanistic personal and value understanding in the course of socio-cultural interaction of the higher education actors;

- *concept* is treated as a universal, a meaning, an idea which is represented in the culture, set and verbalized, forming a system of personal and value, and semantic integrity with implementation of cognitive and emotional components of cognition;

- *individual conceptual sphere* represents an integral unity of cultural universals, personal semantic settings, the human's emotional value connotations comprising the essence of his (her) personal and professional picture - a worldview.

Basing on the conceptual ideas of social-cognitive approach, we tried to reveal an intrinsic form of the subject - subject interaction in the educational process of higher education institution in the framework of a cognitive paradigm, suggesting a human-forming reflection of information and knowledge. Dialogue is considered to be a productive type of the voluntary, equal inter-subject inter-relations according to which the interacting partners are able to reveal new information in the course of communicative acts and are constantly changing, at the same time having kept their sovereignty and identity [4,5,6]

2 Materials and methods

The methodological settings of our research are social-cognitive approach and the principles of its realization: the principle of a human-conformity and the principle of harmonious proportionality.

Purposeful approach settings: it is aimed at mastering the person's culture-conformity, nature-conformity and professional meanings within higher education, their transformation to one's own concepts on the basis of an individual ability to process new information and generate knowledge, and develop an individual conceptual sphere. An effective development of this ability at a human depends on his (her) cognitive features – mechanisms of cognition, which define the acquiring of scientific knowledge in the cultural and value dialogue of times, the conceptual points of view defining an image of an individual and professional worldview.

Application of social-cognitive approach in education provides involvement subjects' of education cognition in the humanistic context including humanistic, personal and value understanding of one's own image and the professional activity with a support on initial, social settings. Any professional sphere continuously recreates a number of the professional situations constructed on the basis of human's cognitive resources which determine the level of professionalism of students' activities and their social responsibility for implementation of professional activities. It assumes the formation of a certain "ideal" (an action pattern, an image) necessary for modern society which is transformed taking into account individual conceptual sphere - the opportunities for personal, intellectual and physical development of the specific human.

Advantages of social-cognitive approach in practice of the higher education are defined by the possibilities of reflecting the picture of an outside world, social norms and the practices of social interaction, the subject professional sphere on students' cognitive individual development and formation of his(her) individual conceptual sphere. Implementation of human-forming, individual reserves and mechanisms of self-organization in educational activity contributes to the development of the personal and professional concepts and values, defining the orientation of semantic settings, basic and instrumental norms of activity in the context of cultural representation. The perspectives of application of social-cognitive approach can be traced in a possibility of studying impact of social interaction not only on cognitive processes, but also on the personality's semantic formations determining his (her) social behavior and professional positioning.

Cognitive dialogue is based on the basis of the following principles:

- *the principle of a human-conformity* causing the focus on the human (his opportunities, his abilities, his needs and his life mission) on design and realization of higher education [7];

- *the principle of harmonious proportionality* revealing a humanistic, developmental matrix of the harmonious personality in the integral unity of cognitive stability, activity, clarity, "symmetry"; proportionality of personality's value and semantic settings to socio-cultural values.

The pedagogical principle is realized in rules. Rules act as additional recommendations to a definite principle.

The principle of human-conformity in the course of cognitive personal development assumes implementation of the following rules:

- identification in the content of education the developmental problems of human's spiritual essence;

- accounting of the cultural and humanistic potential of the educational environment influencing cultural and semantic coordinates of the student's identity;

- determination features of the students' original world taking into account his emotional and sensual sphere, informative abilities, personal interests;

- humanity-oriented focus of the relations within an intelligent community of educational process subjects.

These rules of realization of the human-conformity principle are based on the humanistic reflection, allowing subjects of educational process to develop their personal qualities, including conceptual humanistic understanding and semantic assessment of themselves and the surrounding world.

The following principle - *the principle of harmonious proportionality* revealing a humanistic, developmental matrix of the harmonious personality in the integral unity of cognitive stability, activity, clarity, "cultural symmetry"; proportionality of value and semantic settings of the personality to socio-cultural values.

The principle of harmonious proportionality pre-supposes implementation of the following rules:

- determination in the content of education the problems of formation planetary consciousness and elements of all-human culture;

- harmony of a society-orientation (external plan of cognitive development) and self-orientation (internal plan of cognitive development) as two into-coherent and inter-connected modes of personality's orientation on oneself and on the society as two vectors of humanistic self-creation;

- coherence of two key manifestations of harmony - states of parts and their compensatory effect for the purpose of identification of symmetric coordination between personal and social meanings of human's cognitive development;

- correlation of the idea of rationally-arranged world to the ability to get an emotional experience displaying an essence of a proportional ratio of human's feelings and reason.

For the purpose of verification the founded solutions of the objectives, the following methods of the research were used: the problem-based analysis and synthesis of the ideas, allowing to comprehend the category "cognitive dialogue", analogy, generalization, specification, abstraction, idealization, extrapolation of the revealed trends, regularities and developmental mechanisms of cognitive dialogue between the teacher and the students in higher education institution on the possibility of their implementation in the practice of educational institutions.

3 Results

We treat the cognitive dialogue in the framework of basic positions of social-cognitive approach as a factor of international cooperation development. The principles of its realization are: the principle of human-conformity and the principle of harmonious proportionality. This dialogue assumes identification of the student's attitude towards knowledge, stimulates the establishment of a personal position, creates the atmosphere of mutual understanding, trust, openness, provides a form of self-creation of as the learning person on the basis of interrelation between informative, value and semantic, and conceptual aspects of self-consciousness [8, 9].

Dialogue is a principally different phenomenon comparing to an exchange of monologues as a form of extended statements marking activity of the subjects of education. The monologues can be both appealed, and distinguishable. The appealed monologues influence the addressee, but they do not imply a speech response. The appealed monologues are treated as a center of personal meanings, steady and deep. They comprise the integral layer of culture.

Distinguishable monologues are the statements which are carried out by a person who is alone (literal) or in psychological isolation. These are diary writings, providing "speaking" for themselves.

Distinguishable monologues are an integral part of human life. According to the scientific belief of V. Hayrapetyan, "to think – means, first of all, to speak with oneself" [10]. These monologues are integrally connected with what Yu. M. Lotman called "auto-communication" which is the cornerstone of the situation "I-I", but not "I-HE". "European culture, - the scientist claimed, - consciously and purposefully is guided by the "I-HE" system, but there are cultures focused mainly on auto-communication (countries of the East): they are capable to show a great spiritual activity, however they often turn to be less dynamic" [11, P. 89]. Any participant of the dialogue, using semantic auto-communication after each statement, changes his (her) own state due to the information gain in the course of an infinite meaning-formation.

A compulsory condition for the dialogue - a question-answer form of interaction. However, questions and answers can be multi-purposed and multi-focused. Questions of information character are programming a definite answer which almost does not change neither asking, nor answering. M. Bakhtin and M.S. Kagan [12,13] consider the defining sign of dialogue to be an equal interaction of partners in the course of which there occurs a mutual exchange and the birth of new general sense. Participants of an equal dialogue after a statement change their own state.

Special value in a perspective of consideration of a dialogue as a type of equal subject inter-relations, promoting maintaining their sovereignty and identity, and a monologue as an integral reasonable side of human life "to think – means, first of all, to speak with oneself" is given to a cognitive dialogue between the teacher and students.

M.M. Bakhtin wrote that "the truth is not born in the head of a certain person, it is born between the people who are searching together in the course of their dialogical communication" [12, P. 16]. Cognitive dialogue assumes identification of the students' attitude towards knowledge, promotes manifestation of a personal position, creates the atmosphere of mutual understanding, trust, openness, provides a form of creation oneself as the learning person on the basis of inter-relation of informative, value and semantic, and conceptual aspects of consciousness. Dialogue is based on the statements of different people and is carried out by a chain of the laconic semantic statements called remarks. Socrates said: "If you want to talk to me, use shortage of words" [14]. The ability to conduct a dialogue is a special sphere of speech culture where keenness to the interlocutor, flexibility of a thought, compliance between ability to speak (responding to a moment

situation) and ability to listen attentively to words from the surrounding person. Personal dialogue communication is realized with the teacher who, as a rule, is treated by the students of higher education institutions as a central person, and is the master transferring professional secrets in the course of individual interaction so called "from hand to hand".

Cognitive dialogue between the subjects of education is realized in the humanistic context including humanistic, personal and value understanding of one's own image and the professional activity with a support on initial social settings in practice of the higher education. It defines freedom of personal expression, an opportunity to support one's own rights, sincerely and free show the emotional states, but, at the same time, to preserve one's own self-esteem and dignity, and respect for other personality. These human-forming manifestations define the status of an intelligent person: "An intelligent person is a person possessing intellectual decency. The basic principle of intelligence is an intellectual freedom, freedom as moral category. An intelligent person is not free only from the conscience and from his (her) thought". [15, P. 7].

In modern conditions of rapidly-happening changes essentially important is the ability to react quickly on changes, to adopt to new conditions. Intellectual skills, the ability to understand correctly people and their acts, to assess the situation the person gets into, the establishment and strengthening the inter-relations with the surrounding people are considered also relevant. The cognition processes including imagination, perception, memory, way of thinking in cognitive dialogue are based, first of all, on *creation of an emotional image* which becomes a specific instrument of cognition of personality's both external, and inner world. In the complicated era of digitalization, the most effective way of creation the worldview for subjects of educational process is implementation of interaction between traditional models of emotionally-figurative perception with the new opportunities connected with modern means of obtaining information. Enlargement of an information field thanks to availability and speed of receiving audio and video, allows us to address the reference records of master-classes that become some kind of "school for developing professional skills" and open the new horizons of cognition. *The emotional conditionality of cognitive dialogue* determines the need for definition the instruments providing value understanding and semantic regulation on the basis of integration subjects of education' cognition and emotions [16].

The emotional intelligence serves as an instrument for development of humanistic meanings, value understanding, understanding and regulation of cognition and emotions of the subjects of education affecting success of their cognitive dialogue. Emotional intelligence is a complete dynamic formation integrating cognitive and emotional, and figurative components of cognition; providing optimistic value understanding, understanding and semantic regulation of one's own emotions and emotions of surrounding people and affecting success in a cognitive development of individual conceptual sphere [15,16,17]

The development of emotional intelligence can happen simultaneously to the development of cognitive abilities at all stages of teaching, at the same extent, contributing to the human's comprehensive development in the course of teaching, and further affects success in its personal and professional activity.

In the respect of educational reserves of emotional intelligence, it acts as follows: accounting of students' emotional condition when choosing pedagogical influence, prevention of a didaktogenii and emotional burning out, preservation and restoration of the lost trust relations in the process of inter-subject interaction. Respectively, there is a need for enlightenment concerning a role of emotional intelligence as a component of individual results of students' teaching. Besides, there appears a question of implementation emotional intelligence as a resource of individual development by the teachers.

Thus, the emotional intelligence mediates a humanistic-centered focus of interaction between the subjects of educational environment, promotes the realization of an individual approach in the process of individual development and in the course of teaching and upbringing, raises the level of teacher's personal and professional maturity. Accentuation on students' attention, his emotional and value perception of knowledge leads to its strong assimilation. It means that the human is not able to acquire something and study it comprehensively until he (she) does not comprehend information completely and emotionally over-estimate it. Development of emotional intelligence can happen simultaneously to the development of cognitive abilities at all stages of teaching, to the same extent contributing to the human's comprehensive development in the course of teaching, and further affecting success in its personal and professional activity.

Realization of self-development, self-cognition in the course of cognitive dialogue is connected with continuous, creative search of the new decisions revealing space for imagination, and allowing to create an individual product, not to be afraid of courageous, unexpected turns in the course of finding solution for professional tasks. Therefore, there should be an attraction of such a creative "engine" which would contribute to the development of dialogical self-cognition in the conditions of cognitive dialogue between the teacher and the students. The art providing an emotional and image component of cognitive dialogue acts as this powerful engine. It is possible to define the following, developmental stages of dialogical self-cognition in the course of cognitive dialogue in its integral unity of logical and emotional, and value coordinates based on the material of art works.

The necessary condition for the first stage - identification, and recognition of "a stranger" in "oneself" and also an opportunity to see "oneself" in "a stranger". The need for personal identification is especially essential when appears during the crisis periods. In psychology these crises are connected with the definite age periods or with social cataclysms. Value and informative mechanisms of individual perception are caused by these two features: subjective and age features, and objective and social features. Students search for the support in getting answers to the appearing questions most often in the "mirrors" (reflections) in people's estimations, and patterns. Therefore, the author's personality and heroes of the art work can become this "mirror". O. Wilde defined that "the art is the mirror reflecting the one who looks in it" [20, P. 9]. Leaving apart with an expansion of self-thinking "I", it opens almost an unlimited space for an individual self-development. Having left the real mirror its primary function - to set our appearance, art serves as a "mirror" of an incomparably greater optical power which suggests a real assistance to the personality to see and understand in itself the essence, looking in heroes of the art work as in the reflection. At the same time, a distinctive sign of this process is that it is aimed at bringing personality's spiritual world to a state of semantic harmony.

At the first stage the recognition of positions, the heroes' patterned points of view are significant. The problem of an internal dispute as self-cognition became one of the main in works of the philosopher and literary critic M. Bakhtin, first of all, appearing in his work "A problem of creativity in art works of F.M. Dostoyevsky". M. Bakhtin shows that a situation of "non-recognizing - recognizing" themselves is a situation of the transition of an "external" dialogue with the surrounding people, and "internal" dialogue with himself. Nastasia Filippovna "recognizes" herself in Rogozhin and in Myshkin, Ivan Karamazov - in Alyosha and Smerdyakov, Raskolnikov - in Sonya and Svidrigaylov. However, "to recognize oneself" in another person means simultaneous recognition of own discrepancy, and the worlds which sometimes are mutually excluding each other [21].

Admission of these worlds as "belonging to oneself" at the same time has to mean leading them under some general notion. Therefore, the next stage of development for dialogical self-cognition - from simple recognition features in another person to admission

of the general basis of dialogue, despite external distinctions; it is the period of a de-personification of disputing parties. At this stage it is possible to speak about communication of one personality with the other, but not about communication between representatives of various age and social groups.

There exists the other form of the general which can stand for an original basis of an internal dialogue. This is the definite and general, assuming not only the presence of the general signs, but the existence of the general law connecting various individuals within social wholeness, identification of personalities' integral unity, but not the uniformity.

The personality, realizing oneself the holder of definite and general, does not treat oneself as somebody "finished", and "completely realized". The person creates the world, by himself (herself). "To be a contemporary person means to create the time, but not to anticipate it. Yes, it is necessary to reflect it, but not as a mirror, do it as a shield. To be a contemporary person means to create the time", - M. Tsvetaeva wrote [22].

The highest stage is characterized by such form of dialogue according to which the communication between the arguing parties is based on a definite and general dialogue which can become not just an "understanding" of oneself, but a form of self-creation. At this stage of dialogical model, the informative, value and design aspects of consciousness coincide. Dialogue becomes the personality's way of life.

Creative processing, reconsideration of a huge number of information obtained by modern students is carried out by means of their inclusion in real process of practical activities thanks to which a cognitive dialogue is performed. The role of the teacher in higher education institution in the process of organization of cognitive dialogue is significant, as well. The ability of the teacher to present information from the innovative, extra-ordinary point of view, the ability to focus students' attention on the problem field of inexhaustible knowledge of the world gives the grounds for creative dialogue which is developed on the basis of human's statements and is carried out by a chain of laconic statements. The ability to conduct dialogue is a special sphere of speech culture where it is "required" from the personality keenness to the interlocutor, flexibility of a thought, compliance between ability to speak (responding to a moment situation), and the ability to listen attentively to the words of surrounding person. A personal dialogue communication is realized with the teacher who serves, as a rule, the central person for students of higher education institutions and the master transferring professional secrets in the course of individual interaction, so called "from hand to hand".

In the course of cognitive dialogue in the framework of a cognitive paradigm the teacher's position significantly changes: the role of the teacher of the higher school is gradually transformed to a role of the consultant, stalker, in the literary sense of this word. The focus is shifted to students' self-control, self-management. Cognitive dialogue provides not just an "understanding" of oneself, but a form of self-creation as the learner on the basis of inter-relation of informative, value and semantic, and conceptual aspects of consciousness. Such dialogue becomes the personality's way of life, therefore the teacher (who is the holder of cognitive instruments) is the teacher capable to fruitful informative search, fast adoption of original decisions in unusual situations feeling emotional comfort from success of knowledge implementation and from an opportunity to generate new knowledge, using mastered ways and methods of operating, and the internal personal resources. The teacher, who, provides formation students' cognitive and thinking, and humanistic-focused, behavioural strategies forming the basis of the identity for Human of knowledge – the thinking person possessing human-conformity ("intellectual decency") and harmonious proportionality ("intellectual freedom as a moral category").

The cognitive dialogue taking into consideration specific features of dialogical educational space of higher education institution is a condition for the development of

teachers' ability to reveal oneself in the speech by means of dialogical and monological, emotional and semantic figurativeness.

Teacher's emotional and cognitive self-realization is connected with the hermeneutical direction according to which, teachers should prepare students for perception, adjust them on experience and empathy. The essential position of hermeneutics, intrinsic for the educational environment, is the approval of dialogical character of understanding. The main thing in the "understanding" education is an opportunity and desire to reveal to something that cannot be told, and an ability to experience this openness.

An important link in teacher's "understanding education" in the framework of cognitive dialogue is the emotional identification, the phenomenon functioning at various stages of educational process acts. At the first stage – appearance of a pedagogical idea – emotional identification of the teacher acts in the most general view. Here the principles of influence are considered. At the second stage – development of the idea – emotional identification acts more actively, as a result, various possible options in the system of pedagogical communication tend to appear. At the third stage – the embodiment and implementation of the idea – emotional identification acts as the general principle of feedback in communication. At the fourth stage of pedagogical creativity the emotional identification suggests a real assistance to the teacher to present results of the activity. Here emotional identification acts as an estimating and specifying element. The efficiency of emotional identification is checked by laws of pedagogical logics and acts as the kind of his figurative pedagogical thinking with an accent on emotional-empathy component of teacher's self-realization, developing on the basis of enlargement of an information field thanks to availability and speed of receiving audio and video, which allows us to address reference records of master classes that become some kind of "school for the development of teacher's professional skills" and opens the new horizons of cognition.

4 Conclusions

Cognitive dialogue between the teacher and students is defined as a factor of enhancing the quality of higher education in the conditions of international cooperation in the sphere of higher education. On the basis of providing a humanistic context of the subject - the subject interaction, it defines humanistic, personal and value understanding of one's own image on the basis of inter-relation between informative, value and semantic, and conceptual aspects of consciousness with a support on initial social settings in practice of higher education.

In the article, the human-forming individual reserves and mechanisms of cognitive dialogue between a teacher and the students on the basis of social-cognitive approach as the theoretical-methodological strategy, determining and developing personality's humanistic semantic formations and value transformations. The principles of its realization are revealed: the principle of human-conformity and the principle of harmonious proportionality.

In the conditions of a cognitive dialogue, the subjects of higher educational environment are capable to fruitful informative search, feeling emotional comfort from the success of knowledge implementation, and realizing cognitive and thinking, and humanistically-focused behavioural strategies of life activities in the framework of a cognitive paradigm.

References:

1. A. Disterveg *Selected pedagogical works* (1956)
2. E. Levina, L.Ju. Mukhametzhanova *Kazan Ped. J.*, **3(40)**, 8 (2020)

3. R. Gilmeeva, A. Kamaleeva, A. Kats, E. Levina, V. Maslennikova, L. Mukhametzyanova, T. Tregubova, L. Shibankova *Cognitive pedagogy* (2020)
4. N.D. Feshbach, *Parental empathy and child adjustment/maladjustment*. (1987)
5. C.R. Rogers *A theory of therapy, personality and interpersonal relationships as developed in the client-centered framework*. (1959)
6. M. Davis *Empathy: a social psychological approach* (1966)
7. A. Khutorskoy *Mess. of Volgograd state ped. univ.*, **6**, 4 (2009)
8. S. Belova *Nat. Ed.*, **7**, 103 (2001)
9. S. Yachin *Human*, **5**, 142 (2001)
10. V. Airapetyan *Hermeneutic approaches to Russian word* (1992)
11. Ju. Lotman *Semiosphera* (2000)
12. M. Bakhtin *Esthetics of verbal art* (1986)
13. M. Kagan *Philosophy of culture* (2019)
14. Platon *Dialogues* (2017)
15. D. Likhachev *New world*, **2**, 3 (1993)
16. A. Hargreaves *Teaching and Teacher Ed*, **14** (**8**), 835 (1998)
17. S. Titsworth, M.M. Quinlan, J.P. Mazer *Comm. Ed.*, **59**, 431 (2010)
18. A. Bechara, D. Tranel, A.R. Damasio *The Handbook of Emotional Intelligence. Poor judgment in spite of high intellect: Neurological evidence for emotional intelligence*. (2000)
19. P. Salovey, D. Grewal *Current Dir. in Psych. S.*, **14**, 281 (2005)
20. O. Wilde *Portrait of Dorian Grey* (2017)
21. M. Bakhtin *Problems of poetics by Dostoevsky* (2002)
22. M. Tsvetaeva *Poet and epoch* (2012)

Contributing factors of classroom teaching quality and improving strategies in Chinese universities: From Students' Perspective

*Qin Yuan**, *Bei Chen*, and *Pengsheng Wen*

Pedagogy, School of Education, 330022, 99# Ziyang Avenue, Nanchang, China

Abstract. The teaching quality of universities directly affects the quality of national talent training. The Academic Affairs Office of Chinese universities, through the establishment of the relevant classroom teaching evaluation index system, plays a supervisory role on the classroom teaching quality. Based on the index system, students evaluate classroom teaching quality before selecting a course online at the end of each semester. The paper reports the findings of a small-scale survey carried out in the X University of China within the framework of the ERASMUS+ENTEP project. Through the questionnaires and interviews given to the students of X University, the objective of the study was to identify the index that teachers need to strengthen and then try to put forward some improvement strategies. The results from the survey highlight the factors that contribute to the high quality of undergraduate classroom teaching from students' perspective, including the unvalued personal moral cultivation of teachers, more attention to the indoctrination of knowledge and ignore the inspiration of mind and the effective interaction between teachers and students. The evidence from this survey suggests that in order to improve the undergraduate classroom teaching quality, teachers should shift the concept of teaching and learning, from the indoctrination of knowledge to the mobilization of students' enthusiasm, inspire them to think, associate and innovate, and guide the individual student to become an integrated well-developed person.

1 Introduction

The undergraduate classroom teaching plays the main role in the talent training. Since 2001, The Department of Education Administration of China has issued several documents on improving the quality of teaching, especially to implement the "National Medium and Long-Term Education Reform and Development Plan (2010-2020)"; in 2012, the Ministry of Education of China issued the "Opinions on Improving Comprehensively the Quality of Higher Education". According to them, the undergraduate teaching must be considered as the most basic, the most fundamental work of colleges and universities, because the classroom teaching plays the main role in cultivating talents. The quality of classroom

* Corresponding author: 87370500@qq.com

teaching determines the quality of a country's talent training. However, research has confirmed that there are still many problems in Chinese undergraduate classroom teaching. Wei Shi [1] notes the absence of the teaching standards which are the basic norms for teachers to engage in the class teaching, the yardstick to measure the quality of the class teaching, and the breakthrough in the reform of the class teaching. Yan Wu and Yongming Chen [2] highlight that the crisis of undergraduate classroom teaching is widespread with the survey to 6000 from 10 Chinese universities.

In the face of the many problems existing in the undergraduate classroom teaching, many researchers and scholars have proposed different perspectives and strategies. Fan Chen [3] argues that it should establish the student-centered model for promoting the undergraduate teaching reform. Jian Wang and Mingdi Wang [4] note that the breakthrough of the university classroom teaching reform is to change teaching life in university classroom which includes daily life, social life and professional teaching life between teachers and students. On the other hand, in almost all the universities of the world, a set of evaluation system and index has been formulated with the aim to supervise the teachers' teaching behaviours providing the guarantee for the classroom teaching quality. Students' evaluations for the teachers are the essential, because teachers participate directly in the classroom teaching with their own experiences. To meet students' learning needs is the direction of teachers' efforts. Research has also proposed from the students' perspective some measures in order to deal with the inefficient undergraduate classroom teaching. Xianglin Zhang and Aimin Li [5] note that according to the students, teachers should guide them to increase learning inputs and implement some exit mechanism for them.

The connotation of evaluation index represents the standard of classroom teaching quality. When students participate in the evaluation by marking the scale of the indexes, which index is the one that teachers need to strength and what is the standard like for a high-quality classroom teaching? The aim of the paper is to answer these questions.

2 Materials and methods

2.1 Object of survey

The data of the small-scale questionnaire survey were collected within the specific context of higher education in Jiangxi Province of People's Republic of China. Respondents were students of X University who study across a range of subjects within the different normal directions. The intention of the survey is to clarify the different conceptions that students have for a good classroom teaching in higher education and the aspects that teachers need to strengthen most in classroom teaching.

2.2 Method

2.2.1 Questionnaire

After the questionnaire was produced by the Questionnaire Star software, the link (<https://www.wjx.cn/mobile/statnew.aspx?activity=101257299#1>) of the questionnaire was then randomly forwarded to the different students' WeChat (a Chinese communicative software, similar to Whatsapp) groups of X University of Jiangxi Province.

The questionnaire consists of two parts with 5 items: 3 one-choice related to students' essential information, that is, the grade, major and gender and 2 ranking questions. Eventually, the questionnaire was completed and submitted (in Chinese) by 86 students. We

find from the questionnaire that more than half of the respondents are students of the pedagogic major and the rest from other 6 different majors, including economics, history, literature, engineering and so on. Besides, more than 95% of the respondents are undergraduates: 36.05% freshmen, 17.44% sophomores and 41.86% juniors. Among the 86 respondents, there are 70 female students and 16 males.

According to the 5 evaluation indexes (refer to a notice on the evaluation method of undergraduate classroom teaching quality issued by the X University in 2016) which students must fill out before selecting courses for the coming semester, the 2 ranking questions of the questionnaire involve the ranking of the importance of five evaluation indicators and that of the aspects to be strengthened by teachers from the perspective of students. Before the mass distribution of questionnaires, 4 volunteer students were asked to fill out the questionnaire and they had no difficulty understanding how to do the job and what the purpose of the survey is. The content of the questionnaire is valid.

The average comprehensive score of the ranking questions is automatically calculated on the Questionnaire Star System according to the ranking of all the respondents. It reflects the overall ranking of the options. The higher the score, the higher the overall ranking. The calculation method is as follows:

the average score of the integrative stations of the options = $(\sum \text{frequency} \times \text{weight value}) / \text{the number of people filling in this questionnaire}$

The weight is determined by where the options are arranged. For example, if there are five options involved in sorting, the first position has the weight of 5, the second position has the weight of 4, and the third position has the weight of 3 and so on. If A question is filled out 12 times in total, option A is selected and placed in position 1 twice, position 2 four times, position 3 six times, position 4 seven times and position 5 twice, the average composite score of option

$$A = (2 \times 3 + 4 \times 2 + 6 \times 1 + 4 \times 7 + 5 \times 2) / 12 = 4.83 \text{ points.}$$

The results of the questionnaire are given as follows:

Figure 1 The aspects to be strengthened by teachers are arranged in descending order

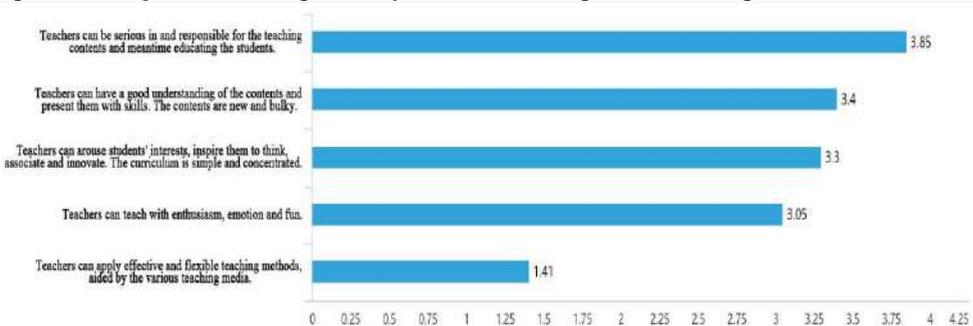
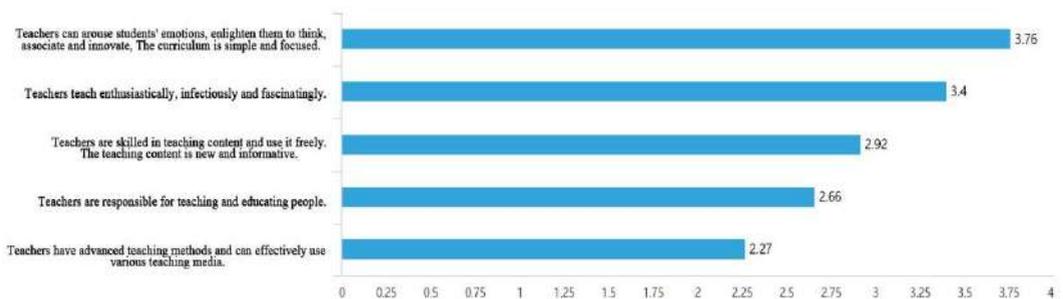


Figure 2 In descending order in terms of importance.



2.2.2 Interview

In addition to the questionnaire, two focus groups of students from X University accepted the interview, one is composed by 5 female graduates and the other by 4 male juniors. Except for that, five students were interviewed separately. All the interviewees came from different majors and different classes. Before answering questions, the students must submit the questionnaire on the spot. The intention of the interview is to clarify what a classroom teaching of good quality is like; which aspect teachers need to strengthen the most and why; which aspect teachers need to strengthen the least and why. The information obtained from the interview is classified according to the structure of the questionnaire. In the follow-up analysis of the questionnaire results, some supplementary explanations are made by referring to the interview content of the students in the focus groups. The interview questions are given in Appendix 2.

3 Results and Discussion

3.1 The unity between imparting knowledge and educating people

According to the questionnaire, 45 respondents of 86 consider that being serious and responsible, imparting knowledge and educating people are the most important indexes/factors within the five evaluation indexes designed by the Academic Affairs Office of X University. It means that the students of X University attach great importance to the teachers' teaching attitude when they evaluate the classroom teaching quality. Teaching attitude is considered as the "major promise", as proposed by one student of the focus groups, without it, other four evaluation indexes will not be performed. One student took also the Masnaot's hierarchy of needs as an example, he categorized the attitude of being serious and responsible, imparting knowledge and educating people into the first need by satisfied. Thus, it is neither contradictory that one student of the focus groups puts it on the back burner considering it as the least important among the five evaluation indexes, because he regarded it as the basic requirement for being a teacher.

Imparting knowledge and educating people are indeed the missions of a teacher. In the 1950s, the Communist Party of China clearly put forward the slogan of "imparting knowledge and educating people" in colleges and universities which have roughly undergone three stages since the reform and opening up in 1980s: dominated by the propaganda department, dominated by the personnel department and dominated by the teachers' comprehensive management department, reflecting different work priorities and management characteristics, such as ideological advocacy, professional requirements and collaborative requirements. [6] In the teacher-student symposium held in the Beijing Normal University in 2014, Chinese President Xi Jinping emphasized that teachers should always bear in mind the missions of imparting knowledge and educating people and guiding the students' minds with personality charm. In addition, at the National Conference on Ideological and Political Work in Colleges and Universities carried out in 2016, Xi Jinping gave prominence to the unity between imparting knowledge and educating people and the importance of teachers' virtue in teaching. The chairman's speech reminds us that teachers' personality charm and virtue become crucial factors which can contribute to the classroom teaching quality.

Even so, the current study shows that in the actual classroom teaching of X University, the index of being serious and responsible, imparting knowledge and educating people is relatively less fulfilled, because in the ranking list, this index ranks at the third position (2.92) in terms of improvement, it means that from the students' point of view, teachers have not done enough. The extreme cases in which the teachers read the content of Power Point (PPT) and the students don't even understand what the teachers are talking about illustrates the

irresponsibility and perfunctory. The worst case is the one in which the teacher uses the same PPT for two different courses. Fortunately, there are meantime many responsible teachers, since the focus group students gave also some examples of serious and responsible teachers.

If the phenomenon of irresponsibility of teachers can be recognized easily, the separation between imparting knowledge and educating people don't seem to be considered a problem for teachers. Although imparting knowledge and educating people request that educators should love, respect and care for the students apart from transferring knowledge, some complaints of the students in the focus groups would provide the evidence that not all the educators have done it well. Some examples show that some teachers ignore the importance of teachers' virtue on the classroom teaching quality. As proposed by a female senior student during the interview: "I hope that teachers would respect us fully and at the same time they can supervise our behaviours in the classroom. For example, when we use mobile phones in the midst of his/her teaching in class, instead of expelling us from the class, the teacher can instead remind us not to do it". Another example from the same student can also give the confirmation when she looked back upon her unpleasant experience: "I took a course called the *Psychology of Happiness*, but I felt unusually painful, because the teacher is male and through his evaluation of women, I had a sensation of not being respected as female."

This case can well illustrate the difference between imparting knowledge and educating people, which is also one of the important propositions of President Xi [7]. How to unite the two aspects? The President Xi gives special importance to the virtue of teachers, just in line with the Chinese traditional culture. The teachers' self-cultivation is the foundation of personality charm which contribute to classroom teaching quality. As mentioned above, the teachers' personality charm can also be the guide of the students' mind. The focus group students also agreed with this point and they provided the verification with their own experience. They stated that a teacher's personal charm was just as important as his professionalism. One student expressed her fondness for some teaches: "I think the personal charm is also very important. Just like the teachers who I met in the junior year. They are also very humorous using the examples from everyday life to explain the problems in writing. Besides, they passed to us the positive energy which is very important to the university students. They encouraged us to work hard. I felt great in class". Another student gave his support pointing out that the teachers' personality charm was the most attractive point for students. He indicated that for a teacher like that, no matter what course he offered, there would be always many followers. Thus, it can be seen that imparting knowledge and educating people are two missions inseparable for the teacher.

3.2 The effective use of teaching media is the least important for the teaching classroom quality

The relationship between technology and education has always been a contentious issue. Different views on the relationship between technology and education lead to different attitudes towards technology, and they definitely have different effects on education. Zhuli Wang [8], professor of Sun Yat-sen University, proposes that from a historical perspective, technology has had a revolutionary impact on education reform, but it does not mean that today's education should be technology-centered. It's better to seek the balance and combination point between technology and education. [9]

The success of Power Point (PPT) is the result of the convergence of multimedia technology and education. Besides, the application "Rain Classroom" developed by the Tsinghua University is being promoted in Chinese universities because of its powerful interactive features, with which, the students can use the mobile phone for answering questions and sending barrages. In this case, the interaction between teachers and students has become more frequent and active. In the 2017, after the observation in a classroom

teaching, Baosheng Chen, Minister of Education of China, expressed that the mobile phone was no longer a tool to make students bow their heads, but a powerful tool to make students look up. [10]

No matter what type of application be used for the classroom teaching, the main goal is to improve the classroom teaching quality. Whether the advanced nature of teaching multimedia will certainly improve the classroom teaching quality?

The result of the questionnaire survey showed that students considered that the evaluation index which requires that teachers adopt advanced teaching methods and can effectively use all kinds of teaching media is the least important and last thing a teacher needs to improve within the five. Two observations could be inferred from the report. One is that the use of the technology is not the critical factor which influences the classroom teaching quality. As suggested by two of focus group students, “I think that it [the teaching multimedia] doesn't really matter and it is not important when you only have your own teaching materials without PPT or multimedia”. Some students of focus-group even prefer writing on the blackboard to the Power Point, because on the one hand, it is convenient for students to take notes; on the other hand, it can help students to concentrate on the teaching content. In addition to this, the focus-group students also referred to the disadvantages of the use of teaching media. For example, one student commented: “I think that when teachers use Power Point, they will read the content according to the slides of PPT, in this case there is no necessary that they are familiar with the teaching content. When my teachers used the Power Point, I felt that the knowledge passed away like a movie. I prefer the teachers who write on the blackboard”. These comments suggest that the use of teaching media in teaching classroom must respect the students' learning way and characteristics. Teachers should consider the teaching practice of different courses when they design the course, rather than thinking purely from the perspective of technology.

Another observation can be inferred from the survey is that teachers have done enough in terms of using teaching media in teaching classroom. As mentioned above, the use of Power Point is very popular in classroom teaching in Chinese universities. There is also the tendency to extend it to the middle school. It is suggested that the key to improve the teaching classroom quality does not depend only on the effective use of teaching media or teaching method, but other more important contributing factors, including teaching attitude, teaching content, teaching theory and teaching enthusiasm.

3.3 Students attach great importance to the acquisition of knowledge in classroom

On the ranking list of the five evaluation indexes, the importance ranking the second is referred to the teaching content, that is, the teacher should be proficient in the teaching content and use it freely. Besides, teaching content should be updated and contain a large amount of information. While three female and one male students of the focus-group considered teaching content as the first important evaluation index within the five indexes, because they supposed that acquiring knowledge was the most important for students, no matter how about the teaching attitude or other abilities of teaching. In addition to this, they think that teachers must pass on what students have to learn, especially for novice teachers who are lack of experience in other abilities.

During the interview, teaching content is often referred to as the solid cargo (“Ganhuo 干货” in Chinese) which means no bullshit, no “chicken soup” in the teaching content. They should be refined, practical and credible, as opposed to gray market goods. When students of focus group talked about what should be a classroom teaching of good quality, they considered the “Ganhuo” as its main characteristic, that is, teachers must let the student learn knowledge. In addition, the students of focus groups who study the pedagogic pointed out

emphatically that the teaching content can not be decoupled from social practice and the theory should be combined with practice.

Using cases and stories for presenting the teaching content is also very helpful for students to understand better teaching content. As told by a student of pedagogic during the interview: “I like so much the cases proposed by teachers in classroom teaching, especially when teachers add their own experience to the teaching content and then ask us to talk about our opinions, because I have a deeper understanding of the teaching content”. The interesting teaching content can sometimes trigger spiritual interaction between students and teachers. On the contrary, theory becomes boring when teachers follow just the content of textbook or the Power Point. At the same time, the updating of knowledge is also the standard of a good teaching classroom quality. In this case, teachers must have profound knowledge, as the metaphor mentioned by one focus-group student: when teachers want to give students a drop of water, they must prepare a bucket of water.

Even worse, the students from the focus groups complained that some teachers yet didn't understand what they were talking about. This kind of phenomenon is more likely to happen in public classes. In addition to this, some teachers used the PowerPoint which would never be changed in “ten thousand years” (an exaggerated statement used by students). Thus, it is not strange to find that this index took up the third place in the ranking list of what teachers need to improve.

3.4 The lack of enlightenment of thought and the effective interaction in teaching classroom

The results of the questionnaire show that “mobilizing students' emotions, inspiring students to think, associate and innovate, explaining profound theories with simple language and giving prominence to the key points” are the evaluation indexes that teachers need to strengthen most among the five. Seven students of focus group gave also their support to this point during the interview, considering many classes of X University as flat as water without communication and collision of ideas between teachers and students, especially in many public courses. One of them exclaimed: “I feel that there are a few of classes in which teachers can mobilize students' emotions and inspire students to think, association and innovation. I don't like, for example, the course about Chinese politics. Why the teacher couldn't link the theory with the Chinese reality and lead us to think about what does our country need? But he just read the content of Power Point.” Another student of focus group added: “I think that in a teaching classroom, the quality consist in that a student can be stimulated to think and reflect, because just when students do this, they can form their own ideas and opinions”.

Chuting Zhang [11], professor of Hunan Normal University puts forward what a good class is in terms of asking questions. He argues: A class can be considered good when teachers are able to carry a pocket full of questions in classroom teaching. It's more of a good class when teachers can arouse the students to ask questions. It's the best class when teachers can't be able to answer the student's question, not because they are not prepared, but just because the questions are fantastic and profound. It is true that effective questioning can lead to good interaction between teachers and students, but not for the sake of asking questions. Some similar examples were also given by the students of focus group, in which, the questions were too easy to be answered by students.

Jiangyong Gao [12] emphasizes the importance of the interactive teaching, through which learning needs and learning obstacles can be explored and supposes that according to learning needs the teacher should give precise teaching guidance, carry out in-depth interaction and deep drilling at learning obstacles, making their learning from close to openness and constructing the interactive teaching mode with sense of benefit. Just in this case, the high-

quality undergraduate teaching occurs. Tiefang Liu [13], professor of Hunan Normal University proposed from the philosophical perspective: “The complete dialogue was to turn to what people are talking about through opening up to each other; the ideal dialogue contains the triple connotation, that is, as the way of communication, the way of thought and the way of life at the same time. When teachers and students are opened up to each other, the high-quality undergraduate teaching are occurred. The example given by students of focus group can also confirm it. One student of focus group confided: “I have a teacher who didn’t like to ask questions, but it was very interesting when we followed her lessons, because there was a communication of mind between us. For example, when she talked about a historian, she told us that the historian didn’t want to be it before and all the class was very excited, because she looked like a presenter of the variety show.” As stand for by Parker Palmer [14]: inner spiritual interaction can help teachers to bond with their students and empower them to resist threats that undermine real teaching.

4 Conclusions

4.1 Strategies for improving classroom teaching quality in Chinese universities: From Students’ Perspective

The above analysis of the results highlights some factors that contribute to the high quality of undergraduate teaching from the students’ perspective, including the personal moral cultivation unvalued by teachers, more attention to the indoctrination of knowledge, the ignored mind inspiration of students and the effective interaction between teachers and students. At the same time, it can be found that the use of the multimedia has little effect on the classroom teaching quality. If we want to improve the classroom teaching quality, we must do more things to make up for these deficiencies. Are there any strategies? The paper tries to put forward some ways based on the research of other scholars.

The first consists in changing the concept of teaching and learning which refers to the basic understanding and belief of the essence and process of teaching, formed gradually by the teaching subject (including teachers and students) in the long process of teaching and learning based on the past experience. The answers given by the focus group students showed that in undergraduate teaching classroom, it’s important the imparting knowledge, but not limited to that. They also value the teacher’s personal moral cultivation and their ability to enlighten the students' thinking and dialogue with them. However, it appears that teachers are not aware of these needs of students, otherwise, students didn’t complain the lack of them. The reason behind this phenomenon is that teachers and students have different concept about teaching and learning. Qizong He and Xiaoqiang Liu [15], professors of Jiangxi Normal University claimed also that the incompatible teaching idea may cause the deep-seated teaching and learning obstacle. It is obvious that the students’ concept of learning has been changed, that is, they consider the learning as “abstracting meaning” or “interpretative processes with the goal of understanding the real world”, rather than the increase of knowledge or the memorization. The correspondent concept of teachers’ teaching should be new, with which teachers pay more attention to the improvement of students' ability to explore, think and innovate, and meet their internal needs for understanding. Only by doing so can high quality classroom teaching take place.

Another strategy can start with the teaching techniques towards the integrity of life, proposed by the professor Liu [16] who claims that teaching as an art of guiding individuals to be a good person, its root lies in how to open the individual life wholly, to realize the individual as the physically-natured, psychologically-socialized and culturally-spiritual existence, which makes the teaching not only as a knowledge giving activity, but rather to guide the individual to become an integrated well-developed person through teaching. In this

perspective, students' subjectivity is highlighted in class. Any reaction of students in class, especially that unexpected, will become the opportunity of education. Yunchuang Dong and Yundu Shen [17] also supposed that teachers must participate to students' unexpected behavior in order to improve their classroom teaching.

A shift in perception leads to a change in behavior. For example, in terms of how to improve the quality of thinking in the classroom, Zhengmei Peng [18], professor of East China Normal University, along with his colleagues examined an argumentation-based learning-phrases-oriented model. With this model, in the classroom teaching, the teacher's monologue turns into a dialogue between teachers and students; learning to argue turns into arguing to learn. With the shift of the perception, more and more teachers and scholars will propose effective teaching strategies for improving the undergraduate classroom teaching quality.

4.2 Prospect for further study

Finally, this study has just examined the condition of one Chinese university and been limited in a small number of students. As proposed by Kangning Wu [19], professor of Nanjing Normal University, "any complicated case rich in content cannot present a 'complete picture of the whole society', a case is, after all, merely a mirror through which researchers look at themselves and the world where the case is placed".

However, it can be summarized that the future research will be investigating what a high-quality classroom teaching is like from the perspective of teachers, what the inherent teaching concepts of teaching and learning are, what the inconsistencies between teachers and students in teaching concepts are. If there is no incompatibility in theories, what factors then affect the classroom teaching quality in reality?

5 References

1. W. Shi. The absence of College Class Teaching Standards and Its Reconstruction. *Journal of Higher Education* **40**, 73-78 (2019)
2. Y.Wu, Y.M. Chen. Analysis and Reflection on the Present Situation of Undergraduate Classroom Teaching: Based on the Empirical Survey of 10 Universities in China, *Higher Education Exploration* **11**, 88-93 (2015)
3. F. Chen. How to Make Student-Centered Teaching Possible: An Empirical Study on the Status Quo of Undergraduate Classroom Teaching in 51 Universities **38**,75-82 (2017)
4. J. Wang, M.D.Wang. On the Teaching Reform of University Classroom: From the Perspective of the Theory of the World Life, *Journal of Higher Education* **34**, 77-83 (2013)
5. X.L.Zhou, Ai.M.L. How to Deal with the Inefficient University Classroom Teaching: From the Students' Perspective. *Journal of Higher Education* **33**, 67-74 (2020)
6. G. Feng. Development and Prospect of Education in Chinese Colleges and Universities after 40 Years of Reform and Opening-up, *Journal of SJTU (Philosophy and Social Sciences)* **27**, 13 (2019)
7. M.M. Zhang. Xi Jinping's Important Proposition on Imparting Knowledge and Educating People, *Studies in Ideological Education* **4**, 57 (2019)
8. Z.L. Wang. New Study on the Relationship between Technology and Education, *Modern Distance Education Research* **2**, 26 (2012)
9. Z.L. Wang. New Study on the Relationship between Technology and Education, *Modern Distance Education Research* **2**, 30 (2012)

10. http://zqb.cyol.com/html/2018-01/16/nw.D110000zgqnb_20180116_9-03.htm
11. Ch.T. Zhang. What is a Good Class in a University?, *Journal of Higher Education* **28**, 74 (2007)
12. J.Y. Gao. The Occurrence of High-Quality Undergraduate Teaching: On the Interactive Teaching, *Journal of Higher Education* **41**, 84 (2020)
13. T.F. Liu. Dialogue as a Teaching Method: Its Connotation and Feasibility, *Curriculum, Teaching Material and Method* **40**, 89 (2020)
14. P. Palmer, *The Courage to Teach: Exploring the Inner Landscape of a Teacher's Life*, 10th Anniversary Edition (East China Normal University Press Ltd, 2014)
15. X.Q. Liu, Q.Z. He. Crossing the Conception of Teaching among Faculty and Students: Moving towards the Microcosmic Deep Quality Construction of College Teaching **33**, 66 (2012)
16. T.F. Liu. Initiation, Inspiration and Dialogue: Teaching Techniques towards the Integrity of Life, *Global Education* **9**, 24 (2019)
17. Y.Ch. Dong, Y.D. Shen. Two Kinds of Classroom Time: Reflection on the Timing of Educational Behavior and Knowledge Occurrence, *Journal of Higher Education* **34**, 17 (2013)
18. Zh.M. Peng, Sh.Y. Wu, X.J. Fu, L.Deng. How to Improve the Quality of Thinking in the Classroom: Towards Argumentation-Based Teaching, *Open Education Research* **26**, 45 (2020)
19. K.N. Wu. What Is an Individual Case?: A Probe into the Topic That a Case Study Cannot Bear Too Much, *Educational Research* **11**, 4 (2020)

Current Approaches to Teaching Reading

*Irina Sofronova**

Ural State University of Economics, 8 Marta, 66, 620144 Ekaterinburg, Russia

Abstract. The paper considers reading for comprehension and developing reading culture, showing how reading habits are constantly changing with new technologies dominating our life. Learning English being the focus of attention, the author comments on the way reading contributes to language acquisition and language learning. A particular reference is given to types of reading, reading for comprehension being the essence of any. The author reviews reading strategies, stressing the necessity of introducing them to the students. The author analyses some of the language courses and gives examples of work on reading skills at the lessons of English using both the above courses and the ones developed by the teachers of the Ural State University of Economics.

1 Introduction

One of the greatest achievements of the 20th century was universal literacy. Hardly ever can we meet now a person who has never read a line. The role of reading cannot be overestimated as it expands our mind and develops creative thinking to say nothing of improving concentration. However, teachers now complain that younger people do not like reading and psychologists have proved that they cannot read big novels due to unsteady concentration. Millennial and Generation Z are characterized by their dependence on technology. They are accustomed to reading messages in the social networks and commands in computer games. These generations won't bother to translate themselves relying on electronic translators. They consider it to be obsolete in the epoch of digitization. According to the latest research about reading habits representatives of Generations Y and Z do read all the time, being unaware of the fact that surfing the Internet can also be reading. Of course, there is a great difference between reading books or blogs and chats. Still one should know and practise different reading strategies depending on the purpose of reading.

The role of reading at the lessons of English has changed over the last forty years. In the past, when the grammar-translation method dominated in teaching English, students were focused on translating, answering questions, with further discussion held only in English language-oriented schools. Textbooks in secondary schools offered abridged extracts from novels and stories by English and American authors, thus providing pupils with patterns of the so-called royal or standard English and enabling them to communicate with foreigners though there was no or very little listening or speaking practice at that time. However, quite a lot of students considered the word-by word processing of texts boring and time-

*Corresponding author. Email: i.sof@mail.ru

consuming. At universities students continued to develop this skill not only in class, but also outside of the classroom doing “extensive reading”. Actually, there was practically no difference between intensive and extensive reading as students had to translate the materials word-by word. Such a situation is quite ambiguous and these terms require further consideration.

The communicative approach to language teaching having substituted the grammar-translation method, the percentage of reading at the lesson has reduced. Moreover, it has turned mainly into a teaching tool. It goes without saying that discussing what you have read is a natural way of communication, contributing both to communicative and linguistic competences of students. The communicative approach has given teachers a different understanding of the role of reading in general and the type of texts in particular. The purpose of this paper is to study the potential of reading as a skill and a tool used to master the English language with a particular reference to extensive and intensive reading.

2 The rationale for reading at the lessons of English

If we now look at two complementary definitions of reading, we will see that the dual nature of this process allows us to kill two birds with one stone, i.e. to get information and improve our language, the latter done most often subconsciously

“Reading is a complex activity that involves both perception and thought. Reading consists of two related processes: word recognition and comprehension. Word recognition refers to the process of perceiving how written symbols correspond to one’s spoken language. Comprehension is the process of making sense of words, sentences and connected text”. [1]

“Reading is a complex “cognitive process” of decoding symbols in order to construct or derive meaning. Reading is a means of language acquisition, communication and of sharing information and ideas.” It is the purpose of reading that determines the appropriate approach to reading comprehension. [2]

Reading is one of the skills that can contribute greatly first to learning and only then acquiring any language. Stephen Krashen distinguishes two independent ways to develop linguistic skills: acquisition and learning. Language acquisition is a subconscious process. This process starts with our birth or even earlier as the baby being in the mother’s womb listens to the sounds of the world. We start developing our listening and then speaking skills.

Reading comes after listening in the order of receptive communication skills. When the time of learning comes, we add reading and writing to the arsenal of our competences. Learning is a conscious process involving formal instruction. The process of learning could be facilitated by immersing a learner into a real or simulated target language environment. Wiland (2000) writes: “Next to living in the target language environment, extensive reading of literature combined with good language models in the classroom can give an acquisition situation in the school context” .[3]

Reading authentic or abridged materials has a practical value and a motivating/educating potential. It encourages language acquisition. First of all, such sources can give examples of good English for the learners to be able to speak and write correctly. At schools and universities students get acquainted with a wide range of styles, registers, and different types of texts expanding their language awareness. Besides while reading they can get an access to the cultural background of the native speakers. And of course we can’t but mention the motivating factor, which is perhaps the most important from the point of view of a student as their most popular question today is, “Why? Why should I read this or that?” Young people today are too pragmatic. They may be engaged in any activity if only it is beneficial for them. Reading activities must resemble real-life reading tasks, so reading

materials must be authentic that involve meaningful communication. They must be connected with what students need now or in the nearest future, i.e. travelling, studying abroad, or using the language in other contexts outside the classroom as well as materials connected with their future jobs. .

3 Teaching Reading at Universities

The principal aim of the course of English at university is to equip students with skills and abilities to operate effectively on those occasions in their future life when they need English. Reading is a universal skill that one needs throughout the whole life. First and foremost we try to orient our students to the goals and methods of extensive reading though of course intensive reading is always in the focus of our attention especially at the lesson.

To improve reading skills, reading strategies should be explained and types of reading should be practiced from the early stages of schooling. Unfortunately now at schools home reading is not widely practiced though now we have graded readers (abridged versions of English and American classics). Home reading is the only way to introduce extensive reading which is in the long run our ultimate goal. We want learners to read whatever they are interested in and enjoy this process. [4]

It is necessary to contrast extensive with intensive reading for students to realize that these processes are completely opposite in the goal, purpose, focus, material, amount, speed, method. [5]

Authentic textbooks used at schools and universities now do not always contain adequate texts that can be used to acquire necessary reading skills. They use plenty of authentic texts to present grammar and vocabulary that is then extracted and practiced in isolation. [6] Texts are accompanied by different kinds of reading activity, which focus not only on comprehension, but most often on exam-type tasks preparing students for an international exam. [7] However, it is necessary to provide the information on how one should cope with such things. Some teachers simply use these reading materials as the bases for discussion or translation, students being unaware of reading strategies.

For example *New First Certificate Masterclass* by Simon Haines and Barbara Stewart precedes each task with step-by-step guidance, reading included. [8] It was a source of inspiration and a real help when I was working out a course called *Fundamentals of Management*. The textbook is a kind of reader for manager-to be, acquainting them with their future job and upgrading their reading skills. All exam training sections contain materials introduced by guidelines. Below you can see a sample of the latter for matching headings [9].

Do	Don't
Read the instructions carefully. They include some information about the text.	Don't start reading until you know what to do.
Skim the text quickly for its general meaning.	Don't read the text word for word
Read the list of possible headings for each section of the text	Don't omit this stage. It is important to know what you are looking for before you start working through the text.
Read the text section by section and underline any words which go with a heading.	Don't spend too long doing this and don't worry if you don't understand every word.
Check that each heading fits before you make a final choice of answer. You may need to read some sections more carefully.	Don't leave any answer blank – if you don't know, make a sensible guess.

We can't but mention here the so-called specialist books, e.g. *International Management* by Adrian Pilbeam, which is focused on reading skills and vocabulary development for managers-to-be. [10] The above courses help us develop competences students need to work with a wide range of materials.

In the beginning of the university course most of the attention is paid to revision of what the students have learnt (grammar, use of vocabulary, listening and speaking). As for reading, it is limited to the materials similar to the ones they studied at school. Starting with the second term students are supposed to do a lot of reading in order to prepare for a presentation and/or write a paper on the theme connected with their future job, which is highly motivating. Actually it cannot exactly be called extensive reading, but it has characteristics of the latter. Students select materials themselves. They are supposed to read fluently trying to minimize their usage of dictionaries

Students are quite familiar with intensive reading as at school they devoted much time to it. When they are asked to read the text, they often think that it is necessary to translate it, but they don't know the fundamentals of translation. They should realize that their task is not to read not for translation, as they are not translators, but for comprehension or paraphrase [11].

For our students to be able to paraphrase and summarize they do a lot of reading preceded with and followed by exercises showing how to collect the information they need. They are taught to find the necessary information looking through on-line search databases containing abstracts. By the way when reading abstracts they are also prepared to write them. Then they skim the articles they need choosing those relevant for their research. Then time for scanning and searching reading comes [12].

4 Conclusion

So, teaching reading is quite challenging. It is not so easy, as it may seem. Teachers are supposed to help their students to become more effective readers by teaching them how to use strategies before, during and after reading. Comprehension is the only reason for reading. Without comprehension, reading is frustrating, pointless. It is no exaggeration to say that the way students will be able to comprehend what they read will have a profound effect on their entire lives.

References

1. M. Kozak, *The Types of Reading and Exercises for Teaching Reading* <https://pdf4pro.com/view/kozak-m-the-types-of-reading-and-exercises-2443d5.html>
2. ResearchGate, *Teaching Reading : Goals and Techniques*, https://www.researchgate.net/publication/328449849_Teaching_Reading_Goals_and_Techniques
3. M. Popova, *How English Language Literature is Taught in the Norwegian Upper Secondary School*, <https://brage.inn.no/inn-xmlui/handle/11250/132308>
4. R.Day, J.Bamford, *Reaching Reluctant Readers*, Forum. **38** (2000)
5. ResearchGate, *Extensive reading in English language teaching*, https://www.researchgate.net/publication/281941558_Extensive_reading_in_English_language_teaching
6. T. Trappe, G.Tullis, *Intelligent Business Intermediate*, Pearson Longman, (2007), www.longman.com
7. D. Spenser, *Gateway B1*, Macmillan (2011) www.macmillanenglish.com
8. S. Haines, B. Stewart, *New First Certificate Masterclass*, OUP (2000)

9. I.Sofronova, *Fundamentals of Management*, USUE (2014)
10. A. Pilbeam, *International Management*, Longman (2003), www.longman-elt.com
11. You Create Yourself, Reading: Types and Techniques, <https://eklavyparv.com/content/communication-skills/239-reading-types-and-techniques>
12. P.Cox, P. Bobrowski, L. Maher. *Teaching Business First-Year Students to Summarize: Abstract Writing Assignment*, Business Communication Quarterly <http://www.sagepublications.com>

Delivering professional doctorate education: challenges and experiences during the COVID-19 pandemic

Matthew Tucker, Hannah Wilson, Claire Hannibal, Aileen Lawless, Zhouhua Qu

Liverpool Business School, Liverpool John Moores University, Liverpool, UK

Abstract. Professional Doctorates have similar attributes of a PhD, but are arguably not as universally known. Moreover, professional doctorates have an added level of complexity, as students become scholar-practitioners by ensuring that they make a significant contribution to professional practice. However, professional doctorate education is often challenging due to the lack of research preparedness of professional doctorate students, who typically have been away from higher education for a number of years. Although these students may have built astute business mind sets, it could be argued that their approach to scholarly research is less so. So to achieve engaged scholarship that enables professional doctorate students to become scholar practitioners, it is crucial to create the correct learning environment. Using the Doctorate in Business Administration (DBA) at Liverpool Business School, UK, as a case study, the ability to deliver professional doctorate education is explored, and pertinently the challenge and experience of how the teaching and learning environment has transitioned since the COVID-10 pandemic is evaluated. Finally, key lessons are outlined as to how to design professional doctorate programmes that are resilient to disruptions to conventional teaching and learning practices.

1 Introduction

This paper takes a critical look at the nature of professional doctorate programmes, and the teaching and learning strategies required to ensure that they successfully deliver their intended purpose. The importance of students becoming scholar-practitioners is crucial to the success of professional doctorate programmes, and influences supervision styles and teaching techniques.

A case study professional doctorate programme is then introduced, critically discussing the teaching and learning strategies used at Liverpool Business School on their Doctorate in Business Administration (DBA) programme.

The paper provides pertinence by giving a unique insight into the strategies that were quickly adopted to ensure students received a seamless transition to online learning due to the COVID-19 pandemic. Finally, the paper concludes by providing the key lessons learned during this journey

2 The nature of professional doctorates

Professional doctorates aim to make a significant contribution to the enhancement of an occupational or professional area through the application, development and testing of theoretical frameworks. They are required to show evidence that, by applying and testing existing and new theories, make a significant contribution to improvements or changes in organisation or working practices, which can be applied elsewhere.

Professional doctorates are distinctive in Higher Education as they are typically studied part time, whilst working in senior positions within an organisation. With a clear focus on developing professional practice those on a professional doctorate programme receive taught elements as well as supervisory support, therefore, provide additional complexity to student's experiences of professional doctorate programmes.

3 Becoming a scholar-practitioner

A professional doctorate graduate will be equipped with a mind-set that will enable them to ask questions in their organisation that make everyone else look at themselves and their work in a different way (Anderson and Gold, 2015). Moreover, researching professionals are also highly reflective and should practise reflection, have a strong sense of self and engage in reflexive research (ibid).

Being a scholar-practitioner comes with the responsibility of being able to use scholarly research methods in order to make an impactful contribution to professional practice. However, according to Allen et al. (2002), professional doctorates are often criticised due to the lack of research-orientated skills and it is common that they have been absent from higher education learning for a long period of time. Despite historic criticisms of the level of research rigour of executive doctoral programs, they are naturally research-driven with a clear application to professional practice.

Students often struggle to immediately refresh and grasp research concepts and applied research learning, due to their relative absence from higher education, and coupled with the high demands of the day-to-day business that they experience in the commercial world. It has been noted that effective teaching of research methods requires an informed understanding of the processes and obstacles in a given environment (Wagner et al., 2011). By developing a clear understanding of the learning environment to which students can flourish in learning research skills therefore becomes crucial.

With professional doctorate programmes approach of 'engaged scholarship' (Van de Ven and Jing, 2012), students are concerned with not only engagement with theory but the intersection with business issues. This poses issues for the practitioner researcher where there is a struggle in the legitimacy of research (Anderson, 2002). Having clear teaching and learning strategies to ensure this legitimacy of research is achieved is another crucial responsibility.

4 Doctorate in Business Administration (DBA)

DBA programme at Liverpool Business School is one of the most established Professional Doctorates in the University. Delivered through a blended learning approach over a four-year period, the DBA is cohort-driven and consists of four one-week residential workshops, monthly virtual action learning sets, and supervision via distance learning. DBA candidates study part-time, and are likely to hold senior management positions.

Overall et al. (2011) highlights that a key challenge of doctoral supervision is how to balance the amount of guidance students receive to learn research skills, while giving them

autonomy to become confident independent researchers. This challenge is considered by Gurr (2001) who investigates how to align supervisory styles with research student development. Gurr (2001) considers how supervisors should aim to transition over the research student's journey from providing appropriate supervision support that is dependent and hands-on, to a style that provides autonomy generation and students become competently autonomous and supervisors become more hands-off.

In the context of the DBA, cultural awareness is an added challenge in achieving these things, as the DBA profile mainly consists of international candidates. Engagement through appropriate teaching and learning strategies is therefore critical, and a blended learning approach enables candidates to learn together and to learn apart.

However, since the COVID-19 pandemic, learning together has become much more of a challenge, with all teaching and supervision being undertaken in a virtual capacity.

5 Key strategies since COVID-19 pandemic

A key thread running through the DBA programme is around reflection and questioning on what has been learnt together, and apart, in order to enhance engagement. This 'blending' enables candidates to move to a deeper level of learning, positively impact their engagement and participation, and ultimately inspire the research excellence of the programme.

Traditionally, this has predominantly been achieved and significantly enhanced through residential workshops in Liverpool, where DBA students are able to engage face-to-face with each other, as well as the DBA Faculty.

However, since March 2020 these physical activities have been unable to take place, and the whole ethos of the DBA programme was tested. Immediately, the programme team had to mobilise to using new virtual strategies to ensure that students would not lose the ability to learn together and learn apart. Four key strategies were introduced:

Asynchronous virtual learning material: traditionally learning material is delivered and provided face-to-face during residential workshops. However, since COVID-19, this has not been possible. As such, the programme team mobilised very quickly to provide learning virtual material in the form of video lectures, online activities and discussion forums, in an asynchronous format. Students would be advised to engage with the material in advance of the virtual workshops that they are timetabled for.

Virtual 'research café' workshops: research cafes are built on the assumption that people are wiser together than they are alone (The World Café, 2015). Research cafes are traditionally delivered face-to-face where students are divided in to small clusters on café style tables. The tables consist of a table cloth (for creative doodling), marker pens and post-it notes for a collaborative 'graffiti wall'. In clusters, students present on a particular research topic and have an open discussion, using prompts from moderators (usually programme staff). During the COVID-19 pandemic, these activities have been mobilised in to a virtual substitute, using breakout rooms and online software to create similar interactive mediums. For example, using online tools such as Mural, a digital workspace to visualise collaboration (Mural.co, n.d).

Virtual action learning sets: action learning is a key learning strategy on the DBA programme and very much aligns to the attributes of a scholar-practitioner. Action learning is a process of 'learning from concrete experience and critical reflection on that experience, through group discussion, trial and error, discovery and learning from one another' (Zuber-Skerritt, 1993). Action learning sets provide a 'safe space' for members to practice questioning their assumptions and challenging their ways of thinking and doing (Corley and Thorne 2006). The COVID-19 pandemic has meant that effectively delivering action learning sets in a virtual capacity is extremely important. Wilson et al (2020) outline how

the DBA programme has enhanced its ability to utilise technology for the virtual action learning sets. For example, by introducing mechanisms to keep a log of action learning sets through a multi-user collaboration tool. The tool enables students to log actions, questions, insights and reflections. This form of asynchronous VAL has been used for senior leaders on a management development programme, finding positive results for learning, behaviour change and outcomes (Waddill 2006).

6 Conclusions and lessons learned

This paper has outlined the nature of professional doctorates, their particularities and their similarities to wider doctoral education. It then provided critique on the importance of becoming a scholarly practitioner, and how shaping the write learning environment, and supervision style can get the most out of professional doctorate students. Finally, the paper presented the current mechanisms used at Liverpool Business School's DBA programme, and how their traditional teaching and learning strategies have had to adapt and mobilise virtually due to the COVID-19 pandemic.

The key lessons learnt from this experience is that it is important to ensure that teaching and learning strategies at doctoral level adequately align to the nature of the research student. In the context of the DBA, the programme team are aware of the challenges with students' research preparedness, the necessity to create impactful research for business practice, whilst learning in a collaborative and engaging research environment.

Although the virtual mechanisms that have put in place can never be a complete substitute to face-to-face delivery, they have been successful in ensuring that the programme team can maintain the ethos of the DBA programme: to learn together and learn apart.

References

1. L. Anderson, J. Gold, 'Becoming a Scholar-Practitioner' in Anderson, L., Gold, J., Stewart, J. and Thorpe, R. eds., *A guide to professional doctorates in business and management*. Sage, London (2015)
2. C.M. Allen, E.M. Smyth, M. Wahlstrom, Responding to the Field and to the Academy: Ontario's evolving PhD, *Higher Education Research & Development*, 21 (2) 203 (2002)
3. C. Wagner, M. Garner, B. Kawulich, The state of the art of teaching research methods in the social sciences: Towards a pedagogical culture. *Studies in Higher Education*, 36(1) 75 (2011)
4. A.H. Van de Ven, R. Jing, Indigenous management research in China from an engaged scholarship perspective. *Management and Organization Review*, 8(1) 123 (2012)
5. G.L. Anderson Reflecting on research for doctoral students in education. *Educational researcher*, 31(7) 22 (2002)
6. N.C. Overall, K.L. Deane, E.R. Peterson, Promoting doctoral students' research self-efficacy: combining academic guidance with autonomy support, *Higher Education Research & Development*, 30 (6) 791 (2011)
7. G.M. Gurr, Negotiating the "Rackety Bridge" — a Dynamic Model for Aligning Supervisory Style with Research Student Development, *Higher Education Research & Development*, 20:1 81 (2001)
8. The World Café A Quick Reference Guide for Hosting World Café, The World Café Community Foundation, accessed from <http://www.theworldcafe.com/wp-content/uploads/2015/07/Cafe-To-Go-Revised.pdf> (2015)

9. Mural.co (n.d), About Us, accessed from <https://www.mural.co/about-us>
10. O. Zuber-Skerritt, Improving Learning and Teaching Through Action Learning and Action Research. *Higher Education Research and Development*, 12 (1) 45 (1993)
11. A. Corley, A. Thorne, Action Learning: Avoiding Conflict or Enabling Action. *Action Learning: Research and Practice* 3 (01) 31 (2006)
12. H. Wilson, M. Tucker, C. Hannibal, Z. Qu, Learning together, learning apart: integrated action learning through a socio-technical systems lens. *Action Learning: Research and Practice*, DOI: 10.1080/14767333.2020.1843403 (2020)
13. D. Waddill, Dewolfe Action e-Learning: An Exploratory Case Study of Action Learning Applied Online. *Human Resource Development International* 9 (2) 157(2006)

Development of creative intercultural and communicative competence of USMU international students at the lessons of Russian as a Foreign Language

Arzu Sadygova¹, Lyalya Yusupova¹, Mushfig Agababaev²

¹Ural State Mining University, Yekaterinburg, Russia

²Ural State University of Economics, Yekaterinburg, Russia

Abstract. This article deals with the topical issues related to the development of creative intercultural and communicative competence of international students of the Ural State Mining University (USMU) in the process of their learning Russian as a Foreign Language. The article suggests the possibility to use various methods and techniques for the presentation of educational material in order to increase the level of formation and development of speaking skills, creative intercultural and communicative competence of the USMU international students at the lessons of Russian as a Foreign Language. The necessity to improve teaching methods for the development of grammar skills alongside with the formation and development of the communicative skills of the USMU foreign students is viewed as the key thing. Special attention is given to the importance of the methodology used to provide the pedagogical conditions necessary for a creative approach to the educational process, which, in its turn, results in the development of creative intercultural and communicative competence of the international students acquiring knowledge and skills in the field of both speech and intercultural communication at the lessons of Russian as a Foreign Language. Particular emphasis is made on the development of oral and written communication skills of the USMU international students at the Russian lessons under paradigm of the development of creative intercultural and communicative competence. Finally, the formation and development of the speech activity of the USMU international students at the lessons of Russian as a Foreign Language is considered to be an integral part of the overall educational process.

1 Introduction

In modern education the choice of methods and techniques for teaching Russian as a Foreign Language is the problem of special importance. The article studies this topical issue considering the experience gained as a result of teaching international students of the Ural State Mining University at the lessons of Russian as a Foreign Language, using the

methods for development of creative intercultural and communicative competence. It is known that the system of Russian education historically regards the general cultural development of the students, an increase in the previously acquired cultural level as one of the priority areas and an enduring value [1]. This lets a future specialist form and develop his personal culture and understanding of the main cultural values of the modern society [2].

Foreign students having insufficient language skills have serious difficulties in the process of obtaining professional and higher education. The lack of a sufficient level of communication skills, inadequate mastery of abstracting and note-taking, inability use functional styles of speech in a correct way, inaptitude to formulate a logical, detailed answer at the lessons, tests and exams make a teacher look for new ways to solve this problem. This problem formed the basis of scientific researches of many modern scientists called methodologists. A famous modern scientist and methodologist O.A. Skryabina considers written speech as the basis of cognitive and communicative development. The scientist sees the reason for the insufficient language skills of students in the “absence of systematic speech thinking”. [3]

The opinion of O. A. Skryabina cannot be denied. This problem has much in common with the problem of the foreign students’ not having important skills of oral and written speech.

It is known that the neurophysiological component of any skill is inextricably linked particularly with fine motor skills necessary for drawing letters and signs on paper or, in other words, writing. The modern education system is characterized by the freedom of writing and reading. The USMU international students increasingly make use of a computer keyboard rather than a pen; they are more reluctant to read and memorize poetry. All this negatively affects the speech activity of the USMU international students. Moreover, the inactivity of the speech system negatively affects the acquisition of new knowledge, the ability to use speech patterns, and the formation of the necessary communication skills. It should be noted that the low speech activity prevents the development of thinking, imagination, attention, long-term speech memory, etc. These factors affect the formation and development of cognitive and communicative skills of the foreign students studying at the Ural State Mining University. As a result foreign students often make lexical and grammatical mistakes when formulating their thoughts, violate spelling, punctuation and lexical rules when creating texts of various types, experience difficulties in a consistent and logical presentation of their thoughts in both oral and written forms.

New living conditions of a modern society have a strong impact on teaching, which develops taking into account the ongoing changes. Modern teaching requires the development and application of new methods for teaching foreign students at the lessons of Russian as a Foreign Language. The intercultural component of communicative competence suggests the ability to make utterances as units of speech and communication [4, 5, 6, 7, 8].

It is known that methodology occupies a special place in the process of teaching foreign students. As an independent science, the methodology explores the content, goals, methods, means, forms of organization, methods of education and training. It should be noted that methodology is based on psychology, so psychological, intercultural, and communicative characteristics and the patterns of acquiring information should be taken into account in the process of formation and development of the language competence of the USMU foreign students. It is known that thinking can develop from a practical and physical activity to a mental or psychic one, and it is considered to be the movement from an external action to an internal one. Gradual automation of actions is also possible by means of the transition from conscious training of individual actions to a general system of activity. Any action requires certain conditions. In teaching Russian as a Foreign Language, such conditions can

be goals and objectives (motives) contributing to the development of creative intercultural and communicative competence of foreign students. In this case, creative intercultural and communicative competence is viewed as a complex multilevel educational process that helps USMU foreign students constantly improve their speaking skills and skills necessary for productive participation in creative intercultural communication. The act of intercultural communicative activity of USMU international students begins from the moment when the goal and objectives are set and ends when the goal is achieved. According to L.S. Vygotsky, to develop creative intercultural and communicative competence, it is important to understand another person's speech. "To understand another person's speech it is not enough to understand the words but not the thoughts of the interlocutor. However, to understand a thought without understanding the motive for the sake of which the thought is expressed, is also insufficient for a complete understanding" [9, p.333].

It should be noted that the main component of the development of creative intercultural and communicative competence at the lessons of Russian as a Foreign Language is the foreign students' participation in intercultural communication with a full understanding of the speech and social behavior of native speakers of the Russian language. It happens due to the foreign students' speech activity, which includes the choice of speech structures, appropriate grammatical forms, etc. The choice of an operation for the foreign students' speech activity depends on the proposed pedagogical conditions. At the first stage of any speech activity foreign students are introduced to a future speech activity and theoretical material. The next stage of a speech activity includes planning or developing an algorithm of actions. This stage is followed by the implementation of the planned actions. The final stage of the foreign students' speech activity at the lessons of Russian as a foreign language is the control (or self-control) of the work efficiency and the obtained result. All the stages of the speech activity at the lessons of Russian as a Foreign Language develop creative intercultural and communicative competence, thus making it possible for the international students to increase the mastery of the subject matter and to obtain the desired result. The development of creative intercultural and communicative competence of the foreign students at the lessons of Russian as a Foreign Language creates conditions for the foreign students' self-realization, increases their motivation and interest in learning the Russian language, brings them closer to intercultural communicative success. "Intercultural communicative competence is a complex multicomponent and multilevel education that allows a person to improve his communicative skills with the aim of more productive participation in intercultural communication on the basis of a better understanding of speech and behavior of an interlocutor ..." [10, p. 7].

There are various alternatives to the sequence of the above named stages of the foreign students' speech activity at the lessons of Russian as a Foreign Language. Frequently the activity takes place with a parallel plan revision and control of the effectiveness of the obtained result. It is known that any training is training in a certain type of activity. The task of the Russian as a Foreign Language teacher is to create conditions for the correct planning of the foreign students' speech activity, to control the performance of the planned operations and to combine all the actions into a single system that develops creative intercultural and communicative competence.

The main task in the development of creative intercultural and communicative competence at the lessons of Russian as a Foreign Language at the Ural State Mining University is to perform the necessary speech operations and to make their transition into the corresponding speech actions. The teacher is required to teach foreign students to perform the necessary speech operations and apply them in speech activity. The teacher can offer foreign students to use the existing model (imitation), or set a goal for them and control the performance of certain operations. In this case, the USMSU foreign students are taught how to speak Russian according to the well-known psychological principle, i.e. from

conscious (cognitive) purposeful action to unconscious automatic operation. In modern teaching, there is a tendency to use the conscious (cognitive) method to form and develop speaking and communicative skills of the foreign students at the lessons of Russian as a Foreign Language. The development of creative intercultural and communicative competence at the lessons of Russian as Foreign Language implies the creation of special pedagogical conditions that allow foreign students to express their individuality to a full extent, to expand their horizons, share knowledge about their own culture and receive new information about other cultures. "... Indeed, our ability to create increases our possibilities to adapt to various ecosystems and allows us to find the most successful ways to "live together "" [11, p. 5].

"The process of interaction with other cultures generates sparks of creativity ... In its turn creativity becomes the source of cultural diversity, including the variety of ways which help cultures of different groups and countries to express themselves. It opens up new forms of dialogue, changes the view of the world, and establishes new relationships among people, countries and generations around the world. In other words, creativity is a constant process that supports, enhances and regenerates cultural diversity in time and space ... "[9, p. 18].

In the works of the scientist and methodologist O. A. Skryabina speech is considered to be communicative in its functional purpose and cognitive in its nature and participation of psychological aspects. Speech translates thoughts into words. This creates a special condition for a deep understanding of another person's speech and speech behavior, which is necessary for the development of creative intercultural and communicative competence of the foreign students learning Russian at the Ural State Mining University [3] .

Undoubtedly, the cognitive and communicative method is regarded to be more appropriate for the application at the lessons of Russian as a Foreign Language. Thus it is important to consider the ways of putting the cognitive and communicative method into practice of USMU international students' linguistic activity at the lessons of Russian as a foreign language. As is known, teaching Russian as a foreign language makes use of various didactic principles. One of the commonly used principles is the principle of collectivity, which requires close collaboration of foreign students under the guidance of a teacher. The principle of collectivity implies close contact with a teacher who competently organizes the educational process, motivates, and controls the foreign students' cognitive activity at the lessons of Russian as a Foreign Language. For the development of creative intercultural and communicative competence at the lessons of Russian as a Foreign Language it is necessary to use an independent creative approach to the foreign students' cognitive activity. The principle of activity implies that the teacher should create an atmosphere of active learning of the Russian language most often by means of a problem solving situation. Solving a problem situation, foreign students are required to use knowledge and skills acquired in the course of study of the Russian language. As has already been noted, the most important thing in the process of teaching Russian as a Foreign Language and solving the assigned tasks is the motivation of the foreign students. Maintaining a high level of foreign students' motivation is possible due to the development of creative intercultural and communicative competence at the lessons of Russian as a Foreign Language. In the process of education it is one of the main tasks of the teacher. Besides, the development of creative intercultural and communicative competence of international students at the lessons of Russian as a Foreign Language makes it possible to apply the principle of developmental learning, the principle of an individual approach and the principle of conscious systematization of the language material. It should be noted the importance of the principle of self-control and self-correction, which allows foreign students to assess their knowledge independently.

It seems important to consider the main things and methods of teaching Russian as a Foreign Language as regards to the development of creative intercultural and communicative competence of the USMU international students at the lessons of Russian as a Foreign Language. It should be taken into account that international students often have poorly developed communicative competence, which results in the insufficient level of development of their oral and written speech, poor note-taking skills, limited vocabulary, frequent semantic and grammatical mistakes, etc. In this case, the teacher's task is to organize an educational process with account taken of the level of the USMU foreign students' language skills. To complete the task, it is necessary to develop didactic materials, teaching aids, practical and test assignments, etc. It is necessary to apply the principle of collectivity and the principle of developmental learning.

The USMU international students participate in group discussions and projects owing to the principle of activity applied at the lessons of Russian as a Foreign Language. Among other principles used in teaching Russian as a Foreign Language are the principles of motivation and problematization which are functionally interrelated and interdependent. The principle of motivation is often used when students do training exercises. The use of competitive components and game elements is relevant when foreign students work in pairs or groups. Speed and time exercises speed up the process of teaching Russian as a Foreign Language. The tasks for such exercises can be as follows: which of the foreign students will be the first to make 5 sentences with phraseological units; who will be the first to find all synonyms in the text; who will be the first to write an essay on a given topic, etc. Joint linguistic activity of USMU international students at the lessons of Russian as a Foreign Language becomes even more evident at the seminars, thematic meetings and scientific conferences. These forms of teaching Russian as a Foreign Language are especially important for the development of creative intercultural and communicative competence of USMU international students.

An important role in the development of creative intercultural and communicative competence at the lessons of Russian as a Foreign Language is played by a teacher who assesses the level of the foreign students' language skills, develops teaching material, pays more attention to low-achieving foreign students, illustrates educational material with examples, asks high-achieving students to perform more difficult tasks, etc. The constant use of complex exercises gives an opportunity to repeat the phonetic and morphemic analysis of a word, the syntactic structure of a phrase and a sentence, the analysis and structuring of a text. Visual aids such as tables, diagrams, maps, drawings, presentations, projects, etc. are a particularly effective means of improving the process of teaching Russian as a Foreign Language at the Ural State Mining University.

Doing training exercises, USMU international students work with various educational materials. For example, they read a text and give it a title, determine the functional-semantic type of speech, determine the style of speech, do vocabulary work, retell a text, etc. The quality of these tasks performance enables the teacher to assess the speaking skills of the USMU international students. In the process of developing creative intercultural and communicative competence at the lessons of Russian as a Foreign Language, the best works of Russian classical and modern literature such as the works of A.S. Pushkin, M. Yu. Lermontov, I.S. Turgenev and others are often used as classical examples of Russian literature. The texts about Russian cultural customs and traditions, Russian cuisine and holidays, Russian cities and symbols are of particular interest to foreign students. The texts to be used as educational material should be considered as classical examples of Russian literature and be of interest to foreign students in order to have a positive effect on the development of creative intercultural and communicative competence at the lessons of Russian as a Foreign Language. The appropriate educational material helps a teacher to

create an atmosphere of trust and mutual understanding, to build a dialogue of cultures, and thus to develop communicative skills of USMU foreign students.

Texts can have pre-reading and post-reading activities. Pre-reading activities are cognitive in nature. A foreign student can be expected to read a text carefully, to formulate its main idea, and to develop an algorithm for his / her further independent work. Independent work at the lessons of Russian as a Foreign Language may include writing a short summary of what has been read or heard, formulating a title to a text, determining a functional style and a type of speech, self-correction, etc.

Performing post-reading activities, foreign students can analyze a text, identify the main parts of a text and make a plan, complete the text with appropriate words, think up a new speech situation, come up with new grammatical forms, etc. The most popular activities at the lessons of Russian as a Foreign Language at USMU require the use of standard speech structures. The performance of these activities results in the implementation of the principle of developmental learning. The activities of foreign students develop from imitation to conscious and independent reproduction of linguistic units.

The principle of combining various types of activities in one task helps to memorize typical speech structures. The performance of cognitive activities at the lessons of Russian as a Foreign Language contributes to the formation and development of logical thinking, develops the USMU foreign students' ability to create their own texts, and develops their creative intercultural and communicative competence.

Currently, the need for well-educated specialists competent in intercultural communication is constantly growing. That is why modern methods of teaching Russian as a Foreign Language aim at developing analytical skills, logical thinking, a high level of intercultural communicative competence and creativity of international students.

The course of Russian as a foreign language at the Ural State Mining University is based on the principle of developing the creative intercultural and communicative competence of international students through the development of general speech culture and speech behavior. A special place in the course of Russian as a Foreign Language is occupied by the sphere of scientific and business communication. The main emphasis in studying genres of business style is placed on drawing up contracts, statements, resumes, business letters as well as organizing and conducting business negotiations, etc. Educational materials and assignments for international students are developed with account taken of the specialities being acquired by the international students.

Methods of teaching USMU international students at the lessons of Russian as a Foreign Language require improvement and diversity. At the Ural State Mining University, teaching Russian as a Foreign Language aims at the formation and development of professional and communicative competence and creative intercultural and communicative competence of foreign students. Foreign students' learning activity is combined with their speech activity. This fact makes it possible to turn education into creative activity and provide conditions for the development of creative intercultural and communicative competence of USMU foreign students and the application of the acquired knowledge in speech practice.

The Ural State Mining University uses traditional methods of teaching Russian as a Foreign Language. Traditional lectures and practical classes give international students an opportunity to hear a logical, emotional, correct and lively Russian speech of a teacher.

One of the widely used methods of teaching Russian as a Foreign Language at the Ural State Mining University is a business game. It allows foreign students to acquire the skills necessary for group discussions and to show their creativity in intercultural communication. Along with typical communicative situations, discussion topics can be from various fields of knowledge and human activity, thus allowing USMU foreign students to learn new rules and terms. USMU international students especially like the eloquence competition which

helps them to get acquainted with the art of oratory. Before the competition, it is possible to choose a jury which will judge the quality of participants' speech.

In the process of developing creative intercultural and communicative competence, test control helps the teacher quickly assess the degree of mastering new material, check grammatical and orthoepic skills of the foreign students. At the Ural State Mining University, the main kinds of classes in Russian as a Foreign Language aim at increasing cognitive interest and intellectual level of the international students as well as at developing their intercultural communicative skills, creative intercultural and communicative competence and the ability to speak clearly and distinctly.

At the lessons of Russian as a Foreign Language at the Ural State Mining University, it is advisable to check students' knowledge on spelling and orthoepic norms. Foreign students of the Ural State Mining University can be asked to write a thematic vocabulary test and put stress in words. To enrich the vocabulary and knowledge of the lexical system of the Russian language, foreign students can be given tasks to make synonymic sets for the given words or to find their antonyms and homonyms. To test the foreign students' ability to use words correctly, taking into account the norms of their lexical compatibility, they can be asked to make phrases or sentences with paronyms. The use of various types of dictionaries also contributes to the increase in the general intellectual level of USMU foreign students, the development of creative intercultural and communicative competence, thus gives an opportunity for independent search for information and research activities.

The conducted research has resulted in the following conclusions. Teaching Russian as a foreign language requires the development of a special methodology. The Russian language is complex and multifaceted, so there are certain difficulties in the study of the Russian language by foreign students. The approach to the study of Russian as a foreign language from the point of view of the development of creative intercultural and communicative competence of foreign students makes it possible to simplify the learning process. It contributes to the formation and development of speaking skills, increases the speech culture and intercultural communicative competence of USMU foreign students.

2 Conclusion

It should be noted that the study of Russian as a Foreign Language at the Ural State Mining University plays an important role in the training of modern creative specialists competent in intercultural communication. Language, being the most important means of understanding people in society, serves as an indicator of an individual's communicative competence. To obtain the maximum result in the process of teaching Russian as a foreign language, it is necessary to use combined methods and techniques contributing to the development of creative intercultural and communicative competence of USMU international students.

References

1. *The Law of the Russian Federation "On Education"*, (2002)
2. A.S. Zapesotsky, *Education, philosophy, cultural studies, politics*, (2002)
3. O.A. Skryabina, *Cognitive and communicative approach to teaching spelling as text-forming activity*, 404 (2009)
4. N.M. Gromova, *Characteristics of the communicative competence of nonphilologists - participants of the international business communication*, 546 (2002)

5. N.V. Elukhina, *Discursive competence and its role in mastering professional communication in a foreign language // Professional communication as a goal of teaching a foreign language at a non-linguistic university*, (2000)
6. N.V. Ivanova, *Discourse in the study of a foreign culture as a heterogeneous phenomenon*, 492 (2004)
7. D.H. Brown, *Principles of Language Learning and Teaching*, (San Francisco, 2000)
8. D. Douglas, *Assessing Language for Specific Purposes*, (Cambridge, 2000)
9. L.S. Vygotsky, *Thinking and speaking*, 333 (1999)
10. V.I. Narolina, *Intercultural communicative competence as an integrative ability of intercultural communication // Electronic journal "Psychological Science and Education"*, **2**, 7 (2010)
11. *Intercultural Competences. Conceptual and Operational Framework*. Paris: UNESCO, 44 (2013)
12. T.G. Grushevitskaya, V.D. Popkov, A.P. Sadokhin, *Basics of intercultural communication*, (2003)
13. I.A. Zimnyaya *General culture and social and professional competence of a human // Higher education today*, **11**, (2005)
14. K.M. Iriskhanova, *Intercultural communicative competence and educational and methodological complex for universities of non-linguistic specialties// Vestnik MSLU*, **538**, (2007)
15. I.A. Isenko, *Sociolinguistic competence in oral communication in the process of studying a foreign language // Higher education today*, **3**, (2007)
16. E.I. Kalmykova, *Formation of communicative competence for the purpose of oral professional communication // Professional communication as the goal of teaching a foreign language in a non-linguistic university*, (2000)
17. A.A. Leontyeva, *Methodology*, 180 (1988).
18. N.A. Ryumina, Y.V. Yastrebova. *Formation of a foreign language linguistic competence based on the interaction of native and foreign languages // Vestnik MSLU*, **492**, (2004)
19. A.P. Sadokhin, *Theory and practice of intercultural communication*, (2004)
20. Yu.A. Sorokin, I.Yu. Markovina. *Ethnopsycholinguistic aspects of teaching foreign languages*, (1999)
21. T.G. Stefanenko, *Ethnopsychology*, (2003)
22. S.G. Ter-Minasova, *Language and intercultural communication*, (2004)
23. N.I. Shevchenko, L.N. Maksimova, *Socio-cultural aspect of multilevel teaching of a foreign language in a non-linguistic university // Vestnik MGLU*, 477 (2003)
24. E.T. Hall *Hidden Differences. Studies on International Communication. How to Communicate with Germans*, (1983)

Diagnosing the formation of an environment-oriented component of competencies in higher education

*Olga Ponomariova*¹, *Olga Vasina*^{2,*}, *Sergey Shurygin*³

¹A.V. Khrulev Penza Branch of the Military Academy of Logistics, Department of Humanities and Socioeconomic Disciplines, 440005, Penza, Russia

²Penza State University, Department of General Biology and Biochemistry, 440026, 40 Krasnaya Street, Penza, Russia

³A.V. Khrulev Penza Branch of the Military Academy of Logistics, 440005, Penza, Russia

Abstract. The article examines the diagnostic tools for evaluating the formation of an environment-oriented component of competencies in students within the system of higher education. The authors present the set of diagnostic tools following their long-term work on identifying the experience of emotional and values-based attitude to nature as the most difficult element of the environment-oriented component of competencies to assess. The article substantiates the selection of diagnostic tools taking into account available environmental knowledge, skills, abilities and behavioural stereotypes of students. It focuses on determining the level of adapted social experience combining the experience of environment-oriented cognitive activity, environment-oriented work methods, environment-oriented creative activity, emotional and values-based attitude. The use of diagnostic tools is illustrated by experimental work within the educational process at A.V. Khrulev Penza Branch of the Military Academy of Logistics and Penza State University.

1 Introduction

The requirements for identifying the structural and content aspects and diagnosing the environment-oriented component of competencies provide for the scientific understanding of its formation as a newly formed integrated personality structure [11; 12]. Since 2016, a group of researchers from Penza State University, Omsk Branch of the Military Academy of Logistics and A.V. Khrulev Penza Branch of the Military Academy of Logistics has been conducting research in the field of environmental education in higher education institutions [12; 13; 15; 19; 20]. The authors have significant experience in similar activities, which was initiated by O.N. Ponomariova in the late 1990s following the diagnosis of secondary school children [1; 16]. The scope of research is the environment-oriented component of competencies containing the following elements: knowledge, skills and abilities, shaped stereotyped behaviours, capabilities in progress, and crystallised volitional efforts of a

* Corresponding author: onvasina@yandex.ru

person. The focus of research is the diagnosis of forming the environment-oriented component of competencies, including:

- evaluating results of cognitive activity and experience assimilation to employ the known work methods, which is fixed in the form of learning outcomes, i.e. skills and abilities to act according to the model (academic performance of students);
- measuring learning outcomes by means of monitoring social, moral, and emotional qualities of a person (e.g. decision-making and problem-solving skills);
- examining psychological qualities and newly formed personality (development of values, attitudes, and behaviours).

2 Theory and research methodology

The methodological basis of research is competence-based, cultural and systemic approaches. It focuses on identifying, developing and selecting diagnostic tools to evaluate the formation of the environment-oriented component of competencies in the process of higher education. The diagnosis allows recognising and assessing existing environmental knowledge, skills, abilities, capabilities and stereotyped behaviours in students. It characterises the state (result) of the formation of the environment-oriented component of competencies. By providing relevant feedback, the diagnosis has control (obtaining data), prognostic (predicting changes in the development of students), corrective and educational functions. An important element of the diagnosis is monitoring the process of assimilating knowledge, skills, and abilities. The assessments ensures receiving feedback and obtaining information about learning outcomes.

The forms of assessment in terms of qualitative and quantitative analysis include: 1) awarding grades (according to the five-point grading scale, where 5 is excellent, 4 – good, 3 – satisfactory, 2 – unsatisfactory, and additionally passed and failed) and points (100-point-rating system); 2) evaluating psychodiagnostic indicators that have an independent prognostic value (analysing and interpreting the results of monitoring).

The types of assessment in the educational process are diagnostic assessment, formative assessment, summative assessment, and confirmative assessment. In addition, students are certified with regard to their professional level. They pass qualifying examinations and write theses (within their study fields). The projective methods of psychodiagnosis are also used.

The assessment is targeted at motivation and stimulation of students, collection of primary data for their academic performance evaluation, correction of mistakes, allocation of grades, and feedback (including the measurement of learning outcomes) [13; 15; 19].

The formation of the environment-oriented component of competencies has high social and cultural significance with reference to prioritising the preservation of life, maintaining the stability of the biosphere as a global ecosystem and understanding the strategic social and economic objectives of environmentally sustainable development in Russia until 2030 (S.V. Alekseev, S.N. Glazachev, E.N. Dzyatkovskaya, D.S. Ermakov, A.N. Zakhlebny, A.V. Ivashchenko, I.V. Moiseeva, G.A. Paputkova, I.V. Petrukhina, I.E. Pistunova, I.N. Ponomariova, O.N. Ponomariova, O.G. Rogovaya, G.P. Sikorskaya, N.V. Skalon, E.A. Tomakov and others) [5; 6; 8; 12; 17].

Diagnosing the formation of the environment-oriented component of competencies aims at measuring the level of adapted social experience, which harmonises the experience of environment-oriented cognitive activity, environment-oriented work methods, environment-oriented creative activity, emotional and values-based attitude to nature, society, homeland, profession, and health (I.Ya. Lerner, V.V. Kraevsky, V.V. Nikolina, O.N. Ponomariova) [2; 12]. Consequently, the set of diagnostic tools is designed to use

available environmental knowledge, skills, abilities and behavioural stereotypes of students. It includes:

- assessing cognitive activity of a person in terms of his / her learning outcomes, i.e. knowledge about nature, society, technology, human, work methods;
- evaluating experience in applying known work methods in terms of learning outcomes, i.e. skills and abilities to follow the model;
- examining experience of creative activity in terms of learning outcomes, i.e. ability to come up with non-standard solutions in difficult situations;
- diagnosing emotional and values-based attitude in terms of personal development of the paradigm of values, attitudes and behaviours, including the emotional space of a person [2; 7; 9; 18].

Testing (including computer testing) allows diagnosing the formation of environmental knowledge and skills. Test as a system of standardised tasks automates the procedure for assessing knowledge and skills of students. Test results reveal:

- assimilation of environmental terms / concepts included in the test (which are learned better and which are learned worse) and environment-oriented material related to different academic disciplines / modules;
- features of ecological thinking of a person at different stages of formation and development through analysing the features of understanding the semantic content of tasks and correlating the content of tasks with the environment-oriented content of various disciplines / modules and life experience of students.

The quantitative and qualitative analysis of test results indicates typical mistakes, least assimilated content, and level of ecological thinking. It allows outlining the ways of adjustment and improvement within the educational process.

Information about the social, moral, and emotional qualities of a person and his / her ability to make non-standard decisions in problem situations can be collected using some interactive teaching methods. These methods are characterised by integrating procedures for the transfer of (educational) experience and procedures for the determination of learning outcomes: game-based learning (role-playing, adventure games, didactic games, escape rooms, computer games, etc.) and nongame-based learning (discussions, debates, case study, etc.) [2, 3]. It presupposes effective interpersonal communication between teachers and students and among students.

This teaching method is built in the form of a trusting (in relation to all participants) exchange of views. Such free discussion is only possible if the teacher has authority and respect as a personality and a professional. It is the way of delivering classes that the scientific, ethical and values-based ideas and views are adjusted, the erroneous standpoints of students are overcome, the focus on tolerating and respecting other people's opinions is stimulated. Discussions can take place in various modes, including with a high level of problematization (ping-pong discussion (question-and-answer mode), guided conversation (directed dialogue), collaborative learning methods, etc.).

The use of the discussion method requires high proficiency in the study field and brilliant management of the educational process. For instance, the teacher should have the professional skills similar to those of TV presenters and talk show hosts to arrange a heuristic conversation and create conditions for active discussion during a practical class. Though, the result of a properly held discussion in the classroom is not public (if the class is not recorded), but it is always a building block for the personality development. More often, teachers conduct training in a monologue form, since multi-person dialogue / polylogue requires higher level of thinking and speaking of both the teacher and the student. Teachers are more accustomed to a monologue than to a question-answer polylogue, which is inconvenient and the results of which are difficult to predict. In the discussion mode that has been used since the ancient times as one of the basic forms of

teaching (the galaxy of the greatest teachers of the past brilliantly mastered it), the role of the teacher can vary from the leading to the supporting one (“behind-the-scenes”). However, the success and satisfaction with the discussion among its participants largely depend on the teacher’s background, his / her outlook and intelligence.

Within environmental education, the case study method (a type of problem-based learning) is grounded on handling and examining environment-oriented situations (engineering, teacher training, economic, managerial, ecological, etc.) as a task. Students first analyse the presented case, produce and suggest possible solutions, then choose the most suitable one, although in some cases there may be multiple correct solutions. The task is aimed at finding a solution to various situations (cases) that have happened or may potentially happen:

- choice case (there is a number of ready-made solutions, including the wrong ones, students need to choose the correct one);
- illustration case (the patterns, mechanisms, and effects should be described);
- problem case (a true situation is given, students should find a way out or to conclude that there is no way out);
- refutation case (students need to prove the inconsistency of any idea);
- assessment case (the situation has a favourable outcome, students should critically analyse the found solution);
- exercise case (students gain experience through processing professional data, as well as develop the ability to work with publicistic and scientific literature, reference books) [2, 3].

The systemic and systematic use of case tasks in the educational process contributes to the formation, development and improvement of various personal (professional) qualities in students, including: interpersonal communication skills for successful interaction and collective decision-making, presentation skills, professional skills and abilities, information skills, and problem-solving skills [13; 15; 19; 20].

In modern education around the world, the following methods are recognised as reliable and valid for diagnosing the development of emotional and values-based attitudes: diagnosis of ecological awareness by means of subtests to assess unity with nature and to measure environmental responsibility (V.I. Panov); completion of sentences (O.N. Ponomariova); Naturephile, EKPБ (emotion, knowledge, protection, benefit), Alternative (S.D. Deryabo, V.A. Yasvin); Dominant (A.F. Lazursky, S.L. Frank, S.D. Deryabo, V.A. Yasvin); DeGroot to establish the egoistic, altruistic and biospheric value orientations in emotional and values-based attitude of a person [4; 10; 12; 16; 20].

3 Results and findings

The authors developed a didactic set “Ecology” consisting of six items (including Ecology. Study Guide, Ecology. Drill Book and Ecology. Teacher’s Book) [3; 14]. These materials provide test tasks for formative and summative assessment as a basis to estimate the acquisition of environmental knowledge and skills. The tasks (namely, case tasks and tasks for roundtable discussions, SWOT analysis, and brainstorming) are structured according to the existing environmental problems and challenges. The indicators of forming the environment-oriented component of competencies (based on the participant observation under distance learning) are as follows:

1. The student is able to identify and evaluate the key elements in the task (Yes / No);
2. The student is able to organise team work on solving a (standard / non-standard environmental) problem (Yes / No);
3. The student is able to think critically and logically when solving problems (Yes / No);

4. The student is able to reason and justify the findings (Yes / No);
5. The student statements are explicit and meaningful (Yes / No);
6. The student behaviour, remarks and statements show that he / she is able to go beyond the task under discussion (Yes / No);
7. The student behaviour, remarks and statements show that he / she applies available data and resources (Yes / No);
8. The student demonstrates knowledge of the environmental effects of the problem (Yes / No);
9. The student is able to maintain positive psychological environment in the team to solve the problem (Yes / No);
10. The student is able to make the right decision under the discussion / case study (Yes / No) [15].

These elements allow diagnosing experience in applying known work methods and maintaining creative activity. However, the data obtained are not enough to identify the motives (reasons) that determine the choice of a particular behaviour pattern, expressed opinion, value judgment, action, which characterises the peculiarity of a person's attitude to certain values and his / her readiness to focus on them in situations of internal choice. The specific features of personal experiences and his / her behaviour in light of personal understanding of various situations [7; 11] defines his / her emotional and values-based attitude. This is the most difficult component to assess, which is considered as an adopted (through his / her relationships with other people, from various information sources) attitude to nature, other people (society), labour, profession, homeland (and world as a whole).

Considerable teaching experience of the authors shows that the sentence completion method can be a high-quality tool for assessing the formation of the environment-oriented component of competencies, which envisages gaining experience of emotional and values-based attitude within the scope of students personal values. This method can provide information about the activity-based (behavioural) component of emotional and values-based attitude, as well as indirect outcomes of teaching [13; 15].

The strengths of this method are its flexibility and adaptability to various research tasks. Group observation is possible. According to experts, the validity and reliability of this type of projective methods is quite high (if the number of respondents is large enough). The questioning is voluntary, respondents are warned that they may not answer the questions.

Questionnaire.

Dear participant, please complete the following sentences:

1. When I think about nature, I imagine ...
2. The major environmental problem is ...
3. If I could solve only one environmental problem, I would choose ...
4. To save electricity, my family can ...
5. The primary reason people do not to participate in environmental activities is ...

The responses received were analysed according to the following aspects:

- changes in the nature and intensity of emotional reaction characterising the sensitivity to the sensuous and expressive elements of natural objects (emotional aspect);
- changes in the cognitive manifestations that determine the motivation and focus of cognitive activity in relation to natural objects (cognitive / ontological aspect);
- changes in the nature of practical interaction with natural objects, from receiving benefits from them to accepting nature as a value (practical / activity-based aspect);
- totality of directed actions, i.e. external (motor) and internal (mental) activity when interacting with natural objects, solving environmental problems and addressing conflict situations from self-interest to professionally focused activity (behavioural / creative aspect).

The expressiveness of the response, nature and intensity of emotional and cognitive comments, reflection of practical (pragmatic) inclinations, activity-based (behavioural) interactions with natural objects were taken in the completed sentences as the indicators of the developed emotional and values-based attitude. Analysing the results of the study carried out using the projective method of sentence completion, the authors identified three levels of emotional and values-based attitude to nature: low, medium and high.

The features of the *low level of emotional and values-based attitude* to nature (for all sentences) are:

- refusing to answer or crossing out the sentences, which show disinterest of respondents, their unwillingness to understand the task and to fulfil it carefully, other reasons – 0 points;
- giving run-around responses, which indicate insufficient knowledge of the conceptual framework (terminological confusion) and low awareness of the basics of ecology. In these responses, there are no cognitive manifestations that determine the motivation and focus of cognitive activity in relation to natural objects (cognitive aspect), and the emotional reaction characterising the sensitivity to the sensuous and expressive elements of natural objects is represented by emotionally unconscious signal. The main emphasis in the responses is placed on the practical / pragmatic attitude to nature as a “useful product”. At that the respondents demonstrate a lack of understanding the scope of the problem (nature is seen only as an object for one’s own benefit and considered as nothing more than a means of satisfying desires and needs of a person) and refuse to address and solve environmental problems (anthropocentrism). Within this level, one completed sentence is estimated at 1 point.

The *medium level of emotional and values-based attitude* to nature is visible in the responses with a traced cognitive aspect. Notably, the authors assumed that the respondent may make some mistakes in environmental concepts. The responses have a pronounced emotional reaction, and the perception of a natural object as a “useful product” for maintaining life and comfort is emotionally loaded. Additionally, the responses related to this level has an aftereffect or follow-up, a kind of contextuality (the respondents may emotionally react to the events covered in various mass media and strongly impressed them on the eve of receiving the questionnaire). However, there is some inconsistency at this level of emotional and values-based attitude to nature, so a completed sentence scores 2 points.

Consistent attitude to nature (i.e. nature is inherently valuable) implies the *high level of emotional and values-based attitude* to nature. Two viewed aspects of emotional and values-based attitude (cognitive and actional components, cognitive and affective, etc.) are jointly found in the responses, which can be regarded as a nature-centred core of the personal experience. The respondents perfectly understand the roots of the problem, soundly reason them, give consistent responses and justify ideas. These are the responses that highlight and reveal the qualified insights of the respondents (focus of cognitive activity). Moreover, the responses with noted importance (impact) of environmental education are assigned to this level. Therefore, one completed sentence at the high level is estimated at 3 points.

When analysing the questionnaires, the authors factored in the points scored for all sentences. Summing up the received points, they got the following results:

- low level of emotional and values-based attitude (0-6 points);
- medium level of emotional and values-based attitude (7-11 points);
- high level of emotional and values-based attitude (12-15 points).

The article presents the summarised and examined findings of experimental work carried out in 2016 – 2021. The questionnaire was completed by students of Penza State

University (V.G. Belinsky Institute of Teacher Education and Medical Institute) and students of A.V. Khrulev Penza Branch of the Military Academy of Logistics.

The responses to the sentence “When I think about nature, I imagine ...” are analysed on the basis of comparison, and then expansion of indicators illustrating the intensity of emotional reaction, peculiarity of cognitive manifestations, nature of practical interaction and activity in nature.

The *low level of emotional and values-based attitude* is distinguished by refusing to answer or crossing out the sentences, as well as providing inconsistent diagnostic indicators. The nature and intensity of emotional reaction is manifested through emotionally unconscious signals, with the elements of responses indicating insufficient knowledge of the basics of ecology. For example: “... everything that inhabits our vast nature”; “... a planet with a large amount of natural world”; “... my future”; “... how beautiful Russian nature is!”, “... beautiful forests, clean air, everything blooming!”, “... myself as an unusually outgoing, light-hearted, free and independent person”; “... the world, where everything lives and flourishes”. The nature of the practical interaction is assessed through the pragmatism in the response, e.g. expecting and deriving benefit from a natural object. Natural objects are described as a “useful product”: “... a field sown with corn”, “... wheat fields” (anthropogenic ecosystems). The behaviour in nature at this level of emotional and values-based attitude can be assessed as selfish. The focus of activity in nature characterises the consumer perception of nature to support life and personal comfort (anthropocentrism), for example, “... garden party”, “... campfire”, “... picking berries and mushrooms”, “... vacation at sea”, “... fishing”. There are no responses that convey cognitive activity of the respondents in relation to natural objects.

The responses with coloured images testify to the *medium level of emotional and values-based attitude* to nature. They are coherent according to the major diagnostic indicators: emotional perception accompanies the description of natural objects and their relationship with the environment: “... a blooming meadow”, “... singing birds”, “... a blue river”. The responses contain the names of animate and inanimate natural objects in their intrinsic value, i.e. denominative elements: “... mountains”, “... rivers”, “... seas”, “... squirrels”, “... bears”, “... birches”, “... oaks”, as well as give a holistic view of nature and interconnection of natural objects: “... ducks with ducklings, graylings going up the mountain rivers”; “... mammals with cubs”. Such responses are regarded as a manifestation of cognitive activity. The nature of practical interaction determines the emotional perception of a natural object as a “useful product” (or an anthropogenic ecosystem instead of a natural ecosystem). For example, “... a blooming apple orchard with singing birds”, “... a forest with sky-high trees, reservoirs with clear water, fields sown with wheat”, “... a forest in the mind of a perfectionist”, “... a village pond located in a ravine, a strip of birches in 3-4 rows at the top of a ravine, and endless fields behind them”, “... the weather is clear, not a cloud in the sky, the field smells of mint and strawberries, the river is not far away with a forest beyond it, a village can be seen on the hill, a light wind bears a smell of smoke from the chimney of the bathhouse”. Activities in nature presuppose a professional focus, but some elements of the responses indicate a lack of understanding of the environmental effects: “... possible use of nuclear, chemical and biological weapons”.

The *high level of emotional and values-based attitude* is illustrated by a consistent (at least two elements, for example, cognitive and emotional, practical and emotional, etc.) perception of natural objects and professional focus of ideas. There are rational responses (voicing reason, intelligence, logic, rationality), comprehensive images of nature with an emotional signal. For example: “... coniferous forest with mountains against the background of sunrise or sunset, fields, lakes, rivers, forest paths”, “forests, singing birds, rustling leaves”, “... a spring forest, namely its edge, with large powerful trees, a meadow disappearing over the horizon, a shimmering river in the golden sunset, serenity”; “... that

nature is like a medicine for me, sometimes it calms, for example, when you go up a mountain or swim in a river, this is so good for health”; “... everything around me, except for buildings”.

The completion of the sentence “The major environmental problem is...” is interpreted by changes in the type of cognitive manifestations.

The features of the *low level of emotional and values-based attitude* to nature are the refusal to answer and lack of knowledge about environmental problems or their denial (“... the tropics”; “... there are none”, “... the greed of a human”). This level also include the responses with weak arguments and conventional ideas, which indicate insufficient knowledge of the basics of ecology, for example, “... ecological pollution by industrial enterprises”, “... everyone should know that pollution of nature harms human health”, “... warming”.

Within the *medium level of emotional and values-based attitude* to nature, the responses reflect:

- examples of local, regional, and global environmental problems or their overview, for example, “pollution of the Sura River”, “... melting glaciers”, “... garbage”, “... air and soil pollution”, “... ozone holes”, “... pollution of forests, fields, reservoirs with household waste”, “... high deforestation and heavy industrial air pollution”;
- contextuality (emotional response to information from various mass media, political propaganda, etc.): “... ozone depletion on the earth”, “... air pollution”, “... melting glaciers”, “... river pollution, as all factories dump their waste into rivers”;
- emotionally loaded assessments of the existing environmental problems with marked role of a human (“... people and their improper use of tools”, “... pollution of the environment by humans themselves”, “... air pollution due to factories, exhaust emissions, unscrupulous people who throw rubbish everywhere, burn trees, which generate oxygen, pollute water reservoirs”).

The *high level of emotional and values-based attitude* to nature is defined by knowledge of environmental problems tackled by non-governmental organisations and problems of environmental education, for example, “... drying up of the Aral Sea”, “... survival of the Amur tiger”, “... a society that is indifferent to environmental problems”. At the same time, the environmental problems identified in the responses are professionally focused (“... military conflicts around the world”, “... environmental pollution by nuclear and chemical waste”, “... possible use of nuclear, chemical and biological weapons).

When completing the sentence “If I could solve only one environmental problem, I would choose ...”, many questionnaire participants give responses related to the previous task. Therefore, the characteristics of the levels of emotional and values-based attitude to nature are similar according to the type of cognitive manifestations. However, the responses suggest different approaches to handling the environmental problems, which determines the behaviour of the respondents.

Values-based attitude to nature is seen at the *low level*, if the respondents:

- refuse to answer or miss the sentence;
- give implausible responses testifying to insufficient knowledge of the essence of the described event, object, phenomenon (“... solving all global problems of ocean pollution”, “... destruction of nuclear weapons”, etc.);
- give stock responses that indicate insufficient knowledge of the basics of ecology, for example “... purity of nature”, “... problem of pollution”, “... cleaning of the environment”;
- give run-around responses, which evidence passive interest in solving environmental problems and weak citizenship (“... I am not responsible for this”, “... the state should combat such problems”, “... the most important”, “... water scarcity in African countries”).

Emotional and values-based attitude is considered at the *medium level* if the respondents examine the current situation in the global, regional and local terms and make proposals for viable ways to tackle the environmental problem. For example: "... initiating household waste management in Russia and reducing nature and air pollution to a greater extent", "... air pollution due to exhaust emissions", "... cleaning the city streets from waste", "... waste disposal".

At the *high level of emotional and values-based attitude* to nature, the respondents display a professional focus in solving environmental problems, identify their causes and highlight environmental education challenges to be addressed. Here are some of the responses: "... destruction of synthetic waste that do not biodegrade in the soil", "... the essential one, the solution of which may greatly influence the life of people, or banning chemical plants", "... work on minimising hazards and recycling waste of hazardous industries, including the military one", "... analysis of the negative environmental impact of enterprises producing hazardous products", "... creating a group of people that will be engaged in cleaning the environment and entrap perpetrators", "... impact of hostilities on ecosystems", "... not causing such problems on our own, changing attitude of other people to environmental problems".

The results of completing the sentence "To save electricity, my family can ..." are used to mark the ways of handling environmental problems and determine the behavioural reactions of the respondents. The authors also identified three levels of emotional and values-based attitude to nature.

The *low level* is noted among the respondents, who refuse to discuss and analyse the problem, tell jokes or misunderstand the essence of the problem: "... not abandon it", "... not fall out of using electricity, because most of essential equipment is powered", "... use a torch", "... fall out of watching TV", "... live without turning on the light", "... use computers less, but I think that it will not work out in our time".

Withing the *medium level of emotional and values-based attitude* to nature, the respondents suggest minimising demands in terms of comfort, but do not specify actions, for example, "... rationally use the supplied electricity", "... use lighting less often", "... use the Internet and electrical appliances less often".

The features of the responses at the *high level* include suggestion conscious actions, voicing professional focus in saving (conserving) resources, as well as submitting proposals for the use of alternative energy sources. For example: "... use solar panels", "... install solar panels", "... independently make a wind turbine to generate electricity", "... avoid using unnecessary energy consumers", "... unplug everything when leaving the house and turn off the light when you do not need it", "... use energy-saving bulbs, participate in Earth Hour movement". One of the questionnaire participants replied in verse form:

"It is simple, saving energy,
We need little: living cleverly."

The last completed sentence "The primary reason people do not to participate in environmental activities is ..." is examined as follows.

The *low level of emotional and values-based attitude* to nature is revealed through:

- refusing to answer or omitting the sentence;
- misunderstanding the essence of the topic covered in the questionnaire ("... environmental resource", "... air pollution", "... littering", "... use of chemicals", "... wipers should do their work");
- giving run-around responses: "... busy life", "... lack of free time";
- demonstrating insufficient knowledge of concepts and basics of ecology ("... that people do not place emphasis on ecology", "... absence of powerful protection laws").

At the medium level of emotional and values-based attitude, the respondents:

- clearly understanding the problem, not correctly committing to writing, so giving an inappropriate response. For example: "... laziness, living for a day and disregarding future generations", "... ignorance of ecology and poor awareness of what is happening around", "... that people ignore life, they are not interested in nature", "... that people think that someone else will solve these problems", "... thought that they will not change anything anyway", "... making a profit on ecology, striking gold at any cost".
- giving terse responses, just acknowledging the fact without examining its reasons ("... lack of discipline", "... lawlessness", "... laziness, indifference", "... progress, material benefits, greed of people", "... that they litter", "... indifference", "... lack of personal interest").

If the questionnaire participants see the essence of the problem, reasonably justify their point of view, use professional concepts and note the impact of environmental education, then their emotional and values-based attitude to nature is at the high level. For example: "... not understanding the further effects of environmental problems", "... their misperception that they do not affect the environment anyway", "... lack of interest and need for this type of activity, it is easier to turn a blind eye than to restore something", "... laziness and ignorance of what may happen, if you refrain from participating in environmental activities", "... laziness, interest in other issues (a different value paradigm)", "... personal irresponsibility, the fact that not everyone understands that he / she can make a difference", "... laziness and lack of understanding that they do not want to help themselves".

The results of the study using the projective method of sentence completion indicate an expected transition from a crude pragmatic perception of natural objects and environmental problems to an emotionally loaded and holistic perception of nature in its inherent value. Consequently, the professional vision of ways to solve environmental problems and to address challenges in environmental education is developed. Such pilot study enables:

- determining the existing level of formed experience of emotional and values-based attitude to nature in a specific group of respondents;
- correlating the identified level of emotional and values-based attitude to nature with emotional and values-based attitude (public and personal) to homeland.

4 Conclusion

The research shows that purposeful educational activities aimed forming the environment-oriented component of competencies result in the transformation in students from a crude utilitarian perception of natural objects and environmental problems to a holistic perception of nature, recognition of its intrinsic value and professional vision of solutions to environmental problems. The data obtained confirm the views of most researchers about the relationships in the chain of values-beliefs-intentions and ecologically significant behaviours of a person. Only the analysis of the aggregate data obtained and their review in the system and integrity enable drawing final conclusions about the effective formation of the environment-oriented component of competencies.

References

1. O.N. Vasina, Bulletin of Higher Education Institutions, 4 (2009)
2. O.N. Vasina, O.N. Ponomariova, S.V. Shurygin, Modern Challenges in Science and Education, 4 (2018)
3. O.N. Vasina, O.N. Ponomariova, D.A. Shpynev, *Ecology. Drill Book* (Penza, 2017)

4. S.D. Deryabo, V.A. Yasvin, *Methods of diagnosing and correcting attitude to nature* (Moscow, 1995)
5. E.N. Dzyatkovskaya, *Modern Teacher Training*, 6 (2020)
6. A.N. Zakhlebny, E.N. Dzyatkovskaya, I.V. Wagner, A.Yu. Liberov, *Environmental Education: before School, at School, after School*, 2 (2012)
7. E.A. Konova, *Bulletin of the South Ural State University*, **5**, 3 (2013)
8. Authoring team, *Best practices of environmental education for sustainable development* (St. Petersburg, 2017)
9. V.V. Nikolina, *Human and Education*, 1 (2020)
10. V.I. Panov, *Psychological Diagnosis*, 1 (2012)
11. M.A. Petukhova, O.M. Krivoshapkina, *Modern Challenges in Science and Education*, 6 (2019)
12. O.N. Ponomariova, O.N. Vasina, D.E. Salov, *Youth. Education. Science*, 1 (2020)
13. O.N. Vasina, O.N. Ponomariova, S.V. Shurygin, *Ecopsychological Research: Ecology of Childhood and Psychology of Sustainable Development*, 6 (2020)
14. O.N. Ponomariova, O.N. Vasina, E.V. Kolesova, *Ecology. Teacher's Book* (Penza, 2017)
15. O.N. Ponomariova, A.A. Tselykovskikh, O.N. Vasina, I.I. Grachev, *Bulletin of Higher Education Institutions*, 3 (2016)
16. O.N. Ponomariova, *Methodical system of teaching ecology in secondary school: Thesis* (Penza, 2000)
17. V.A. Romanov, *Alphabetical list of topics for doctoral theses in pedagogy and psychology in 1937-2017* (Tula, 2018)
18. O.V. Selezneva, N.A. Mamaeva, *Ecopsychological Research: Ecology of Childhood and Psychology of Sustainable Development*, 6 (2020)
19. O.N. Vasina, O.N. Ponomariova, *European Proceedings of Social and Behavioural Sciences*, 90 (2018)
20. O.N. Ponomariova, O.N. Vasina, *International Journal of Environmental and Science Education*, **11**, 15 (2016)

Dialogue between cultures: FL textbook as a foundation for high-quality education

*Irina Pirozhkova**

Ural State University of Economics, 620144, 8 Marta Str., 62, Ekaterinburg, Russia

Abstract. High-quality education is one of the main goals of Russia today. To reach it, the educational authorities, textbook and study guides authors and teachers should cooperate to identify the main problems and find their solution. One of the serious challenges of the Russian students is poor knowledge of foreign languages that reduces their chances to continue their education abroad. One of the ways to improve knowledge of a foreign language is to provide motivational and up-to-date educational resources including textbooks and visual aids. This research analyzes ESL textbooks from the point of view of Russia's image presentation. Several cognitive strategies of the country's image presentation have been singled out, among the most frequent are inclusion of phenomena of Russian culture along with culture-bound information of other countries; stereotypical representation of Russian culture without modern socio-cultural context; emphasis on Russian scientific achievements; presentation of traditional and historic facts; and emphasis on Russian politics. Students' attitudes to culture bound materials are revealed in a survey. Recommendations to textbook authors and teachers are provided.

1 Introduction

Integration of Russia in the international community has affected the educational system of the country. This integration has been accompanied by several activities, firstly, implementation of the Bologna process in 2003 which requires transformation of the higher education system, secondly, modification of requirements to a graduate which include not only professional skills, but also soft skills in different areas, for example knowledge of a foreign language, and finally emphasis on the importance of learning English in Russia, as it is the language of politics, science, economics, business, tourism and international communication. Expansion of international cooperation requires improvement of the knowledge of the English language, it is important to be able to talk not only about the everyday topics, but also to communicate in the professional sphere and to express the views on some burning issues of science, economics or business. Thus, the educational system in Russia faces an important problem of language proficiency improvement to make Russian students and future professionals more competitive in the international labor market.

Today there is a variety of resources to teach and learn a foreign language: podcasts and videos (youtube, BBC learning English), online platforms and apps (British council, duolingo, livemocha, etc.), game-based learning platforms (quizlet, memrise, kahoot,

mentimeter), apps to communicate with native speakers or robots (italky, skype, hellotalk) and others. However, the central element of teaching a foreign language in most schools and universities is still a textbook or teaching and methodological complex (the term is frequently used in the Russian educational system to describe a set of teaching aids that includes a textbook, a workbook, a teacher's book, tests, audio and video files and some other resources). There is no doubt that students are influenced by the textbook materials which can shape their worldview, attitudes and develop creative thinking. We agree that a textbook "plays a crucial role in shaping cultural and social attitudes and molding the behaviour of the learners" [1].

2 Research methodology

2.1 Methods and materials

The goal of this study is to examine the content of English as a second language textbooks (*further* – ESL textbooks) to single out materials referring to the Russian culture in order to identify the most frequent cognitive strategies of Russia's image presentation and to find out students' attitude to culture representation in foreign language textbooks (*further* – FL textbooks). To reach the goal we used the following methods: interpretation, continuous sampling method, content-analysis, contextual analysis, classification, pedagogical observation, linguodidactic experiment and comparison of results. Material for this research is a number of ESL textbooks popular among Russian teachers and learners, including Challenges, Face2Face, New Headway, Cutting Edge, English File and New Opportunities. In total, 45 textbooks have been examined. We singled out 43 contexts that include information about Russia or the Russians (both verbal and non-verbal). Besides, a survey among students of two Russian universities has been carried out to reveal their attitude to the socio-cultural component in FL textbooks.

2.2 FL textbooks analysis

One of the important tasks of linguists, teachers and methodologist today is to create up-to-date FL textbooks. Analysis of ESL textbooks from different perspectives may help to identify the main principles of up-to-date learning materials design. In this research we have studied foreign papers on the problems of FL textbooks published in 2019–2020 in different scientific journals indexed in the Web of Science database. This analysis revealed that there are five main areas in the focus of researchers' attention: 1) discussion of the role of socio-cultural material in a FL textbook, 2) description and classification of non-verbal elements of a textbook, 3) analysis of textbook vocabulary, 4) examination of types of exercises and 5) identification and discussion of the role of gender component in a FL textbook. The first two approaches are relevant for this study. We agree that "textbooks used in foreign language instruction cannot be simply separated from cultural contexts because the mere study of the abstract system of language does not equip learners with the required knowledge, skill, and attitudes to interact effectively and meaningfully in real situations" [2]. In some ESL textbooks there is a certain misbalance in culture representation with the dominance of the English-speaking phenomena, while foreign culture is rather stereotypical and shallow [3]. Emphasis on the native culture of learners might benefit their integration in the society of the native speakers and provide a multifaceted image of not only English speaking world, but also show its connection with the other languages and cultures [4]. Some English textbooks present the so-called "interactional culture" that is a synthesis of the source culture (that of the English-speaking

world) and some other cultures [5]. The cultural component becomes the main in the content of international English textbooks (for instance, English File) and the aim of teaching has shifted in them from communicative competence development to the intercultural competence formation [6]. Many contemporary textbooks show a tendency of multiculturalism that reveals itself in the use of iconic images connected with different cultures [7]. Some ESL textbooks, however, still ignore the target culture completely, which gives rise to serious academic problems [8].

Another popular approach to FL textbooks analysis is the study of non-verbal elements representation. This problem is closely connected with intercultural competence development described above, as images are often analyzed from the point of view of culture representation. For example, it is examined how pictures and photos communicate knowledge about the world and what role they play to establish relations between the textbook author and students. “Critical textbook analysis should attempt to demonstrate the ideological nature of meaning-making by examining the interplay of multimodal representations, the interactive meaning of textbooks' multimodal material as well as the pedagogic-didactic frame within which learners encounter them” [9]. Images may become an effective tool to bridge different cultures with the English-speaking world, but “the critical multimodal content analysis of textbook characters and their interactions suggests that a general western bias and implicit support of native-speakerism are still existent in Korean EFL textbooks” [10].

So, multicultural competence becomes the leading one in FL teaching and its successful development is possible only if the source culture, the international culture and the target culture are presented in a well-balanced way.

2.3 Sample and procedure

During this research we made a survey among Russian and Chinese students studying in Russia to find out if they are satisfied with their FL textbooks. The hypothesis of this research is that FL textbooks present the image of the learners' native culture in a simplified and stereotypical way and high-quality language teaching requires adaptation of educational resources to the needs of learners.

Sample: 58 Russian students of the Department of Management and IT of the Ural State University of Economics and 45 Chinese students of the Ural State Pedagogical University took part in the survey. These students are motivated to either continue their education abroad or to work in international companies and they need high level of a foreign language. By a foreign language in this case we mean English for the Russian students and Russian for the Chinese students. The questionnaire contained five main questions for the students to assess their FL textbooks from the point of view of socio-cultural component. Students' answers are shown in Table 1.

Table 1. Role of culture-bound materials in FL textbook (students' view)

1. Are there any culture-bound texts, photos and other materials in your FL textbooks		
Yes – 75%	No – 10%	Didn't notice – 5%
2. What countries did you learn about from FL textbooks? (Russian students' answers)		
English-speaking countries – 67%	Russia – 0%	Other countries – 33%
2. What countries did you learn about from FL textbooks? (Chinese students' answers)		
Russia – 85%	China – 5%	Other countries – 10%
3. Is it useful to learn about different countries (traditions, achievements, people, etc.)?		
Yes – 37%	No – 35%	I don't know – 28%
4. Would you like to learn about your native country (traditions, achievements, people, etc.) in the foreign language?		
Yes – 85%	No – 15%	

Continuation of Table 1

5. Would culture-bound materials (particularly about your native country) in the FL textbook increase your motivation to learn the language?		
Yes – 87%	No – 13%	

So, the survey confirmed that socio-cultural information should be included in a FL textbook in a well-balanced way: it is necessary to tell students about the source culture, but at the same time, the target culture or the native culture of learners must not be neglected. Students who took part in the survey named the following disadvantages of FL textbooks: outdated materials, useless information, general facts that are not interesting to discuss, topics are not connected with their lives, lack of pictures, stereotypes about the native country, etc. To find evidence of the abovementioned, it is necessary to single out the main strategies of Russia's image presentation in ESL textbooks that are frequently used in teaching English in Russia.

3 Results and discussion

During the content analysis of ESL textbooks we have found nine cognitive strategies of Russia's image presentation (from the most frequent to the least frequent):

1) Inclusion of phenomena of Russian culture along with culture-bound information about other countries is the most frequent cognitive strategy. It is often found in the sections devoted to nationalities, capitals and flags. Facts about Russia are included in general knowledge quizzes, for instance, *"When was the Russian Revolution"* (New Headway Elementary 2014, p.54), *"Did Leo Tolstoy write War and Peace?"* (New Headway Pre-Intermediate 2019, p.45), *"Alisher Usmanov is a businessman, where is he from?"* (Cutting Edge Starter 2013, p.19). In some cases, Russia and its realia are used to illustrate grammar rules, for instance, the verb "to be" is exemplified by the sentence *"I'm from Russia. You're not from Australia. I am not from Italy"* (Cutting Edge Starter 2013, p.15). Apart from short and fragmentary contexts, textbooks include longer texts with references to Russia. For example, Cutting Edge Pre-Intermediate (p. 55) tells about travelling in different countries (motorcycle tour round New Zealand, canoeing down the Amazon river): *"A train journey to remember! Moscow to Beijing by train – thirteen days and 6000 kilometers across Russia, Siberia and Mongolia..."*. Sport is quite a popular topic to include facts about Russia: *"Russian women tennis players are very popular. Good examples are Maria Sharapova (Wimbledon champion at seventeen) and Svetlana Kuznetsova (US Open champion at nineteen)..."* (Challenges 1 2010, p. 24).

Most of the contexts are neutral, they do not have any negative connotations and they simply emphasize the fact that the role of Russia on the international arena is quite big. This strategy represents the multicultural nature of ESL textbooks.

2) Stereotypical representation of Russian culture without modern socio-cultural context is still frequent in contemporary ESL textbooks. Among the most common stereotypes are cold weather in Russia, superstition of the Russians, heavy drinking, and espionage. These are several examples *"When I was working in Russia, and I was going to see some friends who lived in the outskirts of the town ... it was very, very cold, it might have been minus 30... at some of the tram stops there were bonfires lit – special street fires to keep people warm..."* (New Headway Upper-Intermediate 2014, p. 68). The fact that it is cold in winter arouses no contradiction, but we never lit bonfires at the tram stops nowadays as this habit is a thing of the past, when special bonfires at tram stops were used to heat stones to be put in trams to make tram drivers warm. However the textbook presents this fact as if it is still true. Russian customs and traditions are presented in the following way: *"In Russia, for example, you should never shake hands in a doorway... Also avoid leaving empty bottles on*

the dinner table in Russia - that's bad luck" (Face2Face Pre-Intermediate 2013, p.66-67). In our opinion, these are rather superstitions, which do not deserve any attention in an ESL textbook.

On the one hand, stereotypes about Russia are still popular abroad. Such popularity might be promoted by textbooks as well. On the other hand, we did not find any negative stereotypes about Russia, which are still in abundance in Chinese textbooks of the Russian language [11].

3) Emphasis on Russian scientific and technological achievements is a popular strategy in ESL textbooks: "*Space agencies in the United States, Russia, Japan, Canada and Europe are working together*" (New Headway Elementary 2014, p.82–83); "*The first man-made satellite to orbit Earth, Sputnik 1, was launched in 1957/ 1967/1977 by the Soviet Union*" (Cutting Edge Intermediate 2013, p.104). So, the country is shown from the positive perspective, as an innovator in various spheres, such as space industry, medicine, television, biology, etc. Thus, contemporary ESL textbooks have a tendency to underline the role of Russian science in the world's technological progress. The textbooks do not include any negative information connected with the military activities of Russia, which are often speculated about in the news.

4) Presentation of traditional and historic facts is less frequent but is still found in several contexts. For example, there are tasks to find the information about different people, places and historical events and traditions, among which indigenous people of Greenland, Canada, the USA and Russia (Cutting Edge Elementary 2013, p.14), unsung heroes like "*Mary Seacole – the Jamaican woman who nursed soldiers during the Crimean war and Vasily Alexandrovich Arkhipov – the Russian man who prevented nuclear war*". (Cutting Edge Upper-Intermediate 2013, p.65), "*Cossack dances are from Russia and Ukraine. They are very energetic – some are more like gymnastics than dancing...*" (Challenges 2 2010, p.74). Examples of this strategy are not numerous, probably because of poor knowledge of the real Russian traditions and history by the textbook authors and replacement of traditions by stereotypes.

5) Emphasis on Russian politics is often found in ESL textbooks. Among the turning points in history we may find the Great October revolution, the story about which is accompanied by the picture of V.Lenin and a revolutionary slogan in Russian (New Headway Advanced 2019, p. 97), the picture of V. Putin is found among other famous people from different countries – musicians, actors, sportsmen and singers (Cutting Edge Starter 2013, p.17). Lenin's quote is included in one of the exercises: "*A lie told often enough becomes the truth*" (Face2Face Pre-Intermediate 2013, p.47). In spite of the fact that there are many famous Russian actors, singers, sportsmen, etc. textbooks often prefer to mention political life of Russia as it attracts much attention of the Western world..

The other strategies: 6) reference to the Russian language, 7) presentation of general and superficial knowledge of Russia, and 8) underestimation of the role of Russia on the international arena are much less frequent and they are represented by few examples. For instance, we can find some Russian words: "*Privet*" (Cutting Edge Elementary 2013, p.8), "*sobachka*" – the word for @ symbol (New Headway Upper-Intermediate 2014, p.91), pictures of the Red Square (New Headway Elementary 2014, p.57), etc. As for the strategy of exclusion of Russian culture from the textbook materials it is found in two textbooks (Challenges 3 и New Headway Intermediate) which do not mention Russia at all.

4 Conclusions

After the survey the following conclusions can be made: 1) students, both Russian and Chinese, understand the importance of socio-cultural information in FL textbooks; 2) Russian students learning English as a foreign language admit that there are a lot of texts

about the English-speaking countries in their textbooks, while they do not remember any information about Russia in them; Chinese students learning Russian as a foreign language underline the dominance of Russian culture in the textbooks with little attention paid to their native country; 3) culture-bound information in FL textbooks has become quite trivial, it does not arouse much interest of modern students: this information has nothing to do with their lives, they will never go to most of these countries and facts about them are not interesting, they know most of these facts already, the information is outdated – these are popular answers of students; 4) the majority of respondents want to be able to tell about their own country in a foreign language, so FL textbooks should present more “target culture” information; 5) motivation to learn a foreign language might be increased if the native culture of students were paid more attention in FL textbooks. The following reasons for the native culture inclusion were identified by the students: “Knowledge of the native country is important, I can tell my foreign colleagues about Russia/China”, “I will understand the history better”, “It is easier to learn new grammar/words/other rules on the basis of facts that are close to us”, “This information will be useful for my future profession” (this answer was given by the Chinese students, as they want to be tourist guides and interpreters).

Textbooks analysis disclosed the problem of poor representation of the learners’ native culture. There are many ESL textbooks and teachers are free to choose the ones to be used in class. Although many universities publish their own textbooks, some materials from popular foreign textbooks are used in class as additional resources. We argue that one of the important requirements to a FL textbook is its socio-cultural content that should include true and relevant facts about the native culture of learners presenting a multifaceted image of the native country without distortion and misinterpretations. Otherwise, FL textbooks do not stimulate dialogue between cultures, they are rather monologues of the English-speaking world. So, FL teaching is impossible without teaching culture, as M.G. Bennet wrote «the person who learns language without learning culture risks becoming a fluent fool» [Bennett 2003: 237].

References

1. H. Ahmad, S.R. Shah, VFAST Trans. on Ed.and Soc.Sc., **5** (2014)
2. M. Amerian, A_Tajabadi, Intercult. Ed. (2020)
3. R. Xiang, V. Yenika-Agbaw J. of Multiling. Multicult. Dev. (2019)
4. H. Motschenbacher Int. J. of App. Ling., **29. 3** (2019)
5. N.T. Nhan, S. Yutdhana_Pertanika J. of Soc. Sc., **27. 3** (2019)
6. A.L. Espinar, A.R. Rodriguez, Lfe-revista de lenguas para fines especificos. **25. 2** (2019)
7. D. Rojas-Plata LIT. J. of Lang., Lit. and Cult. St., **30. 1** (2020)
8. S. Ahmad, K Yasmin Dil. Cont.-ed. Pol. Y Valores, **6** (2019)
9. C. Weninger Lang. Cult. and Curric. (2020)
10. S.J. Joo, A. Chik, E. Djonov Asian Engl., **22. 1** (2020)
11. L.E.Vesnina, I.V. Kirilova Phil. Class, **1. 55** (2019)
12. J. Bennett, M. Bennett, W. Allen, Developing Intercultural Competence in the Language Classroom. (2003)

Diversification of teaching cognitive styles in higher school as a factor of enhancing the quality of teaching accounting the best European practices

Alexandra Kats¹

¹ Institute of Pedagogy, Psychology and Social Problems, Isaeva Str., 12, 420039 Kazan, Russia.

Abstract. In the modern conditions, one of the teacher's leading tasks is achievement of high quality of teaching based on the analysis and accounting of the best European practices, which can be actualized in the context of a research on teaching cognitive styles. The relevance of a research is as follows: teaching cognitive style causes features of an individual style of teacher's professional activity. The purpose of the article is in determination of inter-relation between the research on teachers' cognitive styles and realization of practical aspects of teaching accounting the best European practices. It is formulated that the research of teaching cognitive styles is one of the priority directions of the research which is caused by the need for enhancing the quality of teaching in higher school within achievement of high level of pedagogical mastery. It is proved that inter-disciplinary study of Russian and foreign researchers is aimed to establish individual differences in the ways of teacher's work with information, to model variable situations of pedagogical interaction accounting diversification in models of teachers' intellectual behavior in higher school. The article is intended for the researchers, and teachers-practitioners.

1 Introduction

In the modern conditions, the emphasis in the course of enhancing teaching practice in higher school is placed on enhancing the quality of teaching that is motivated by the following factors: need of achievement the level of quality teaching coherent to the international quality standards; need to implement adoptive experience of the best European practices in the teachers' professional activity; presence of system of the universities' international ratings (TOP-100) for assessment the quality of teaching; high requirements to the specialists at the educational labour market. The high quality of teaching is based on achievement of high level of pedagogical mastery on the basis of the analysis and accounting of the best European practices, in the course of formation significant pedagogical values, enlargement the role and functions of a modern higher school teacher

¹ Corresponding author: cats.schura@yandex.ru

in the educational process (transfer from the mentor to the tutor, the facilitator and a mediator of pedagogical interaction), and greater individualization of teaching process that will promote diversification of approaches to the students' teaching. According to scientific belief of T. Tregubova, L. Shibankova, A. Kats, the quality of education, the efficiency of its development and resultativity are defined by the activity of teaching staff: those people should teach, who make a contribution to science and can form models of students' cognition [1].

Universities' participation in the international, educational projects considerably enriches the practice of teaching, stimulates teachers for the professional growth and development, and is also focused on search of innovative approaches to teaching, innovative forms, methods and technologies of teaching. Active participation of the teacher in international cooperation is one of the most effective instruments for enhancing pedagogical mastery. Participation in the international project activities serves as an "external" motivator for teachers' professional development while the research on teaching cognitive styles in higher school is an "internal" motivator for self-cognition and self-development. In our opinion, the teacher studying the features of his (her) cognitive sphere is more focused on systemic, internal work, and consciously approaches to the self-reflection of his(her) professional activity.

The research on teaching cognitive styles is one of the priority directions of a research the scientific interest to which is caused by the need for enhancing the quality of teaching in higher school, aspiration to achievement pedagogical mastery on the basis of the analysis and accounting the best European practices, reveal teachers' creative potential in the course of teaching activity. The organization of educational process in higher school becomes more constructive if the teacher doesn't not only possess knowledge of cognitive styles' features, but skillfully implements them into practice and also uses the adoptive, educational potential of the best, European practices in his (her) professional activity. It was found out, that the teachers' (intellectual) behavior in the process of studies is caused by features of the leading, cognitive style. According to scientific opinion of C.Evans C., M.J.Harkins, J.Young, "teachers, who are aware of their preferred teaching style could be encouraged to reflect their teaching behaviours and to develop a range of teaching styles to best meet different learning styles of the learners" [2], which assumes the analysis and accounting of cognitive styles in teachers' professional activity, search of compliance in teacher-student cognitive style. In modern conditions there can be observed a tendency that the range of students' inquiries is enlarged which is caused by emergence of new educational opportunities for students, change of motivation to learning and also high requirements to training of the qualified, competitive specialists in an educational labor market.

According to scientific belief of prof. Tregubova T. M., L.A. Shibankova, A.S. Kats, "Based on the analysis of teachers' cognitive styles, teachers are able to choose, substantiate and improve their tools of teaching" which influence on flexible change and enhancing the didactic organization of studies in the higher school [3]. A young teacher, being in process of his (her) professional establishment, studies his (her) cognitive style to create an individual style of teacher's professional activity. An experienced teacher whose individual style of professional activity has already been created, searches to modify the cognitive style to satisfy students' educational inquiries. Reconsideration and conscious selection of forms, methods and technologies of teaching, relevant to teacher's and students' cognitive style is a result of this internal work of the teacher.

In accordance with scientific positions of M. Darra, enhancing quality of teaching in higher school in the context of research of teaching cognitive styles is based on the following principles [4]:

1. The process of training students is based on cognitive data processing, respectively, the learning outcomes can be viewed in accordance with teachers' knowledge, skills, attitudes, values formation and their (intellectual) behavior influenced by cognitive abilities of the teacher and the students.

2. Transfer from one level of cognition to another is carried out in case that teachers are able to provide students with different cognitive abilities, an opportunity to study on the basis of differentiated stimuli resources, types of activities and innovative approaches to teaching which will allow them to estimate the learning outcomes more objectively and to model process of teaching on the basis of knowledge generation about features of functioning students' cognition.

3. Application of inter-disciplinary approach to teaching is realized on the basis of the cognitive-centered teaching and suggests competitive advantages both to the teachers and the students. In this context, the teacher becomes a mediator of independent study where students can reveal their cognitive abilities, and the teachers grounding their activity on the cognitive-centered teaching carry out their professional activities more effectively.

2 Methods of identification teaching cognitive styles and their types

In the process of our research the following methods were used: the method of psychological and pedagogical experiment, the method of diagnostics on the basis of monitoring; the method of questionnaire; the method of short interviews.

The method of psychological and pedagogical experiment suggests an opportunity to modelling situations on the organization of teachers' professional activity, which are aimed at stimulating the manifestation of personal and professional characteristics, influencing on the style of teacher's professional activity.

The method of diagnostics based on the monitoring is in the ability to study the realization of teachers' professional activity in higher school and on the basis of monitoring to determine the individual differences in the teachers' intellectual behaviour.

The method of questionnaire allowed us to get the relevant data about the formadeness of teaching cognitive style in higher school. It was based on adoptive "Test on reflection. Methodic on diagnostics the level of reflection development" (A.V. Karpov) [5] (cognitive style The Reflection – The Impulsivity) and Test on "Determination the type of orientation – vector of pedagogical activity" (motivation component of the style Cognitive complexity – Cognitive simplicity) (K.M. Levitan) [6]

The method of short interview allowed us to check the relevant data about personal and professional characteristics influencing the style of their professional activity.

The specific feature of the realization the pilot research on teachers' cognitive styles was to prove the degree of validity of the methodic of identification teaching cognitive styles on the basis of methods of expert evaluation of the research results and cross-reference of the research results. According to the experts' opinion and results of cross-reference, it was found out that the questions of the adoptive methodic reflect the content and motivational aspects of teacher's professional activity.

In modern Russian, scientific literature there contains about 15 types of cognitive styles (apart from isolated cognitive styles). Our research is based on the relevant data provided in a manual "Cognitive pedagogy" according to which there are 9 types of the cognitive styles based on the dichotomized approach (Cognitive pedagogy, 2020)[7]: The Field independence – The Field dependence, The Definiteness - The Abstractness, The Smoothing – The Sharpening, The Rigid informative control - The Flexible informative control, The Low level of tolerance to unreal experience – The High level of tolerance to unreal experience, The Focusing control- The Scanning Control, The Impulsiveness - The

Reflexivity, The Narrow range of equivalence – The Wide range of equivalence, The Cognitive simplicity - The Cognitive complexity.

R.J. Riding, A. Douglas [8] determined 19 cognitive styles in foreign literature, which have been identified in the modern conditions and are based on the dichotomized approach. Let us outline the most significant of them: The Reflective- The Impulsive Style, The Convergent - The Divergent Construct, The Holist- The Serialist theory, The Field-Dependence- The Field Independence Model, The Adoption – The Innovation Theory, The Wholist-The Analytic and The Verbal- The Imaginary Model.

Diversification of teachers' cognitive styles influence on presence of variable, personal and professional characteristics at each teacher that assumes the presence of these characteristics in professional activity of the teacher and forms unique style of teacher's professional activity.

The hypothesis of our research is as follows: it is possible to trace the inter-relation between a research on diversification of teachers' cognitive styles in higher school and enhancing the quality of teaching in higher school, relying on studying teacher's personal and professional characteristics affecting character and vector of his (her) professional activity.

3 Analysis of sources on teachers' cognitive styles

Applying to the best European practices on research of teachers' cognitive styles, we have studied the works of foreign researchers on influence of teaching cognitive styles on quality of teaching in higher school (M. Grimley, G. Banner; L. Zhang; C.L. Samms) [9; 10;11] and studying influence of cognitive styles of students on quality of teaching at the higher school (S. Atkinson; C. Peklaj; A. Gellel)[12,13,14]. Modern, foreign researchers share the common opinion that the research on cognitive styles allows them to establish inter-relation between teachers' cognitive style and the degree of efficiency of teacher-student work, measured in learning outcomes. M. Grimley, G. Banner [9] found out that there is a correlation between working memory, teachers' cognitive styles, and teachers' (intellectual) behavior in the process of studies and students' performance during the certified, final examination (measured in learning outcomes). It was revealed, that the best performance was achieved by "analytic verbalisers". L. Zhang [10] was the founder of the scientific theory allowing an opportunity to predict the learning outcomes and enhance teaching practice in higher school by means of the research on teaching cognitive styles. He investigated the predictive power on teacher-student cognitive style match-mismatch performance on 3 academic disciplines: Mathematics, Physics, and Public administration. It was found out that in the course of studying discipline "Public administration" the correlation between teacher-students' cognitive styles was the highest, the lowest correlation was traced when studying discipline "Physics". C.L. Samms [11] suggested that by means of drawing up the cognitive map for the teachers and the students it was found out that the teacher is capable to use his(her) abilities of the cognitive style more efficiently, than the student does (accounting age, cognitive, individual, and personal differences). The significant contribution to the research of students' cognitive styles was made by S. Atkinson [12]. He investigated students' cognitive abilities, and came to a conclusion that a kinesthetic and a verbal type of a person possess the highest resultativity, while the visual learners have the lowest results in teaching.

In the process of our experimental work, we conducted a pilot research on identification of teachers' cognitive styles in higher school on the basis of FSBSI "Institute of Pedagogy, Psychology and Social Problems" and the Kazan (Volga -region) Federal University. In the process of identification teaching cognitive styles in higher school there participated 54 respondents and 3 internal experts who possess a sufficient pedagogical experience and the

formed individual style of pedagogical activity. The relevance of the conducted pilot research is caused by the fact that process of knowledge transfer, formation of competences and the organization of multi-dimensional pedagogical communications between the subjects of education with different types of thinking and perception is essentially important.

In this respect, there was a need for identification the leading teachers' cognitive styles—"The Reflexivity-The Impulsiveness", "The cognitive complexity - The cognitive simplicity", affecting features of teacher's professional activity. The specific feature for the realization of a pilot research on teachers' cognitive styles was that during the pilot research the degree of validity of tests on identification teaching cognitive styles on the basis of expert assessment of the results of a research and cross-reference of the results of a research was defined.

On the basis of conducted research we have come to the following results of a research:

1. Growth of interest to the problem of identification teaching cognitive styles by the participants of research was motivated by the desire of teachers to obtain high level of pedagogical mastery. The teachers showed their motivational readiness to participate in a pilot research, openness to discuss key aspects of pedagogical activity and also an objective and fair self- reflection of pedagogical activity that allowed to receive the most reliable results of a research.

2. Results of questionnaire were carefully re-checked by method of an expert assessment. According to the results of expert assessment, the conducted pilot research is rather valid as questions of the test were prepared taking into account determination of the objective criteria of pedagogical activity, they are logically -interconnected and directly formulated.

3. Results of questioning were checked also by method of cross-reference the results of research allowing us to receive "feedback" from the respondents who were taking part in pilot questionnaire. Most of the respondents confirmed that the obtained data was comparable to their professional position, professional preferences, motivational readiness for implementation of professional activity, and a desire to enhance teaching practice.

Applying to these data, we developed the questionnaire for "feedback" with "cognitive-centered" the teacher which reveals the inter-relation of research on teaching cognitive styles with practical aspects of teaching (Table 1)

Table 1. Inter-relation of research on teaching cognitive styles with practical aspects of teaching.

№	Aspects of teaching	Key questions for teachers' overestimation on teaching cognitive styles	Conclusions on the aspects of teaching (accounting the influence of cognitive style)
1	Volume of material	How can I structure the material for teaching in the most appropriate way?	Structuring the information/material is made in accordance with specific features and personal-professional characteristics of students
2	Ways of presenting material	What is the most appropriate way of working with information, that will lead to successful fulfillment of the task?	The work with information should be realized in a system: comprehension of information, processing information, structuring the information, systematization of information, generation of knowledge, translation of knowledge
3	Speed, pace and	What is the influence of the	The pace of presenting information

.	changes of activities	pace of teaching on completion different kinds of activities?	depends on personality's cognitive abilities and functioning of his (her) cognition
4	Modeling of match between creative and rational way of thinking	Am I struggling to stimulate students' creative development?	Correlation between cognitive style and creative way of thinking was established. The research on cognitive style is based on rational way of thinking
5	Diversification of cognitive styles in the aspect of teacher's professional activity	Am I using the whole range of cognitive styles in my professional activity?	Each teacher has 1 dominating cognitive style, other styles are considered valuable (they comprise the range of teaching cognitive styles)
6	Self-study and guided study	Am I developing the students' ability to self-study and guided study?	Research on teachers' cognitive styles assumes an ability of the teacher to self-reflection. Such type of a teacher is motivated on development students' abilities to self-study
7	Structure and organization of studies	Am I using the structure of the lesson to provide the learning outcomes?	Research on cognitive styles assumes the ability of structuring and systemizing the information, that allows the teacher to organize efficiently the educational process in higher school
8	Evaluation	Am I using the abilities of students' complex assessment in accordance with the tasks of teaching?	Study on teachers' cognitive styles serves to help the teacher to estimate his cognitive abilities and give an objective evaluation of students' cognitive potential

Subsequently, the teachers researching cognitive styles have a range of the personal and professional characteristics which are positively influencing enhancing the quality of teaching:

1. The cognitive-centered teacher is able to structure the information that allows him (her) to organize efficiently the logical structure of studies in higher school, and to approach flexibly the organization of educational process in higher school.

2. The cognitive-centered teacher is determined to introspection and self-reflection that will provide critical reconsideration of key positions in teaching. The self-reflection he implements is designed to help the teacher to enhance the practice of teaching in higher school that is achieved by the deliberate choice of relevant forms, methods and technologies of teaching and leads to the change of teaching didactics.

3. The cognitive-centered teacher is more objective in the subjective assessment, provides logical arguments for subjective assessment. The logicity of reasoning is a distinctive feature of the cognitive-centered teacher.

Admitting presence of diversification of teaching cognitive styles in higher school affecting the style of their professional activity we have come to the following conclusions:

1. Each teacher has the unique personal and professional characteristics shaping his (her) individual, cognitive style depending on features of work with information.

2. Implementations of the range of teaching cognitive styles applied by the teacher in the course of teaching is aimed to enrich the teaching practice by means of diversification

of approaches to teaching and also the deliberate choice of means of teaching, relevant to teacher's and students' cognitive style can be traced.

3. The efficiency of teaching, is oftentimes caused by the conscious approach towards research of the range of teaching cognitive styles in higher school, teacher's ability to carry out self-reflection of professional activity on the basis of self-cognition in the course of teacher's cognitive organization.

Thus, in modern conditions the emphasis is placed on formation of the innovative teacher who has formed professional values, theoretical knowledge, practical skills, who performs professional activity taking into account the best European practices that allows him (her) to reach the high level of pedagogical mastery and to achieve the best learning outcomes.

4 Conclusions

Let us outline the most significant results, we have come to in the process of our research of teaching cognitive as a factor of enhancing the quality of teaching:

1. The research on teaching cognitive styles allows us to reach the maximum quality of teaching, based on cognitive abilities of the teacher and the students. The teacher inclined to self-reflection of pedagogical activity and introspection of cognitive styles can approach more flexibly the modeling of situations of pedagogical interaction. In the course of teaching based on the research of teaching cognitive styles greater individualization of teaching and more humanistic-centered focus of teaching will be observed.

2. Influence of cognitive styles on the differentiated ways of work with information will be especially significant for achievement the quality of teaching. Based on the research of teacher's cognitive processes, it is possible to predict teacher's intellectual behavior in the process of studies in higher school that will allow the teacher to focus on definite aspects of teaching.

3. Studying the features of teachers' cognitive styles allows the teacher to enhance teaching didactics as the analysis and accounting of cognitive styles allows to provide the differentiated approach to deliberate choice of relevant forms, methods and technologies of teaching.

The mismatch of teacher's and students' cognitive styles significantly affects the learning outcomes and students' motivation to learning. Respectively, an appeal of researchers and practicing teachers to the problem of research on teaching cognitive styles is based on the fact that the efficiency of teaching activity is based on accounting of students' personal and professional characteristics and their educational preferences.

To sum up, cross-disciplinary research in the field of cognitive styles confirmed our hypothesis of correlation between teaching cognitive style with enhancing the quality of teaching. We support the scientific opinion of O. O. Olagbaju [15], the cognitive style of the teacher is "a teacher's consistent way of responding to, interpreting and using stimuli in the context of learning". Therefore, the research of cognitive style is not really concerned on what the student studies (content of learning), but it is about the ways and strategies which the student uses in the course of work with information (cognitive ways and cognitive strategies of data processing). The cross-disciplinary research is aimed to suggest researchers an opportunity to establish individual differences in the ways of work with information, to model variable situations of pedagogical interaction taking into account diversification of models of intellectual behavior of teachers of the higher school. According to scientific opinion of Z. A. Bakar, A. Rafaquat [16], the research on cognitive styles can be applied to enhancing teaching practice in higher school, and will allow to achieve the best learning outcomes in different types of activities. As a result of researches of foreign scientists-researchers (C. Evans; M. Warning; S. Hubackova; N. H. Wulandari,

K.A. Widayati, B.Suryobroto; L.Sellah; K. Jacinta,H.Mondoh) [17,18,19,20], it was found out that it is necessary to match teacher-student cognitive style on 75% for enhancing the quality of teaching and nearly 32% of respondents meet this requirement; 31% of respondents match teacher-student cognitive styles on 50%, and demonstrate rather good match between the teacher and students. The teacher-student match on less, than 25%, can lead to the conflict of styles, and will significantly reduce the quality of teaching.

According to scientific opinion of C.Evans [21], the research on teaching cognitive styles of teachers influences on a preparatory phase for the training students which includes the following aspects: the preparation and organization of the content of teaching, deliberate choice of educational resources, the conscious choice of the tasks directed to reveal students' cognitive abilities, and also planning "feedback" with the students. Applying to the course of training students, cognitive styles influence on the didactic organization of studies: structuring the studies, speed and pace of information presentation, organization of pedagogical interaction, flexibility of the studies organization, fair, teacher's subjective assessment. Respectively, the cognitive-centered teacher in the process of studies in higher school, searches to consider the teacher-student match of cognitive styles in correlation with other phenomena that allows him(her) to provide enhancing of teaching practice in higher school. Conscious approach to recognition of diversification of teaching cognitive styles allows us to identify and consider differences in individual (intellectual) behavior of the teacher in the process of studies. We believe that enhancing of teaching practice in higher school can be realized via means of improvement the quality of teaching that assumes change of the didactic organization of studies on the basis of research on teachers' cognitive styles in higher school, and accounting the cognitive features of the personality in the process of studies.

5 Acknowledgements:

The research in ENTEP-project was funded by Education, Audio-visual and Culture Executive Agency, Erasmus+, ref.: 586225-EPP-1-2017-1-DE-EPPKA2-CBHE-JPENTEP. The authors are also grateful to all partners of ENTEP team with their valuable contributions to discussions and verification of the developed procedures.

References:

1. T.Tregubova, A. Kats, L.Shibankova Materials of VI International Forum on pedagogical education "*Perspectives and priorities of pedagogical education in the era of transformations, choice and challenges*", 309 (2020)
2. C. Evans, M.J. Harkins, D. J. North Am. J. of Psych., **10**, 567 (2008)
3. T. Tregubova, L. Shibankova, A. Kats Arpha Proc., 2595 (2020)
4. M. Darra. Int. J. of Ec.& Business Adm., **1**, 4, 137 (2013)
5. A. Karpov Psych. J., **24**, 5, 45 (2003)
6. K. Levitan *Foundations of pedagogical deontology* (1994)
7. R. Gilmeeva, A. Kamaleeva, A. Kats, E. Levina, V. Maslennikova, L. Mukhametzyanova, T. Tregubova, L. Shibankova *Cognitive pedagogy* (2020)
8. R.J. Riding, G. Douglas British J. of Educational Psychology, **63**(2), 297 (1993)
9. M. Grimley, G. Banner Int. J. of Exp. Ed. Psych., **28**(3), 341 (2008)
10. L. Zhang Int. J. of Exp. Ed. Psych., **26**(3), 395 (2007)
11. L. Samms *Relationship between dissimilar cognitive styles, use of coping behaviour, and use of learning strategies*. (A dissertation submitted in fulfillment of requirements for the degree of Doctor of Philosophy for Louisiana State University) (2010)

12. S. Atkinson *Int. J. of Exp. Ed. Psych.*, **24(5)**, 659 (2010)
13. C. Pekai *Hor. of Psych.*, **12(4)**, 9 (2003)
14. A. Gellel *Materials of 11-th biennial conference of the European Association for Research on Learning and Instruction* (2005)
15. O.O. Olagbaju *Ed. Res. Int.*, 1 (2020)
16. Z. A. Bakar, A. Rafaquat. *Materials of 2-nd International Seminar on Quality and Affordable Education. ISQA E2013*, 536 (2013)
17. C. Evans, M. Warning *Ed. Research for Policy and Practice*, **10(3)**, 149 (2011)
18. S. Hubackova *Proc.- Soc. and Beh. Sciences*, **197**, 1952 (2015)
19. N. H. Wulandari, K.A. Widayati, B. Hayati *J. of Biosc.*, **23**, 121 (2016)
20. L. Sellah, K. Jacinta, H. Mondoh *Cog. Psych.*, **5**, 1 (2018)
21. C. Evans *Int. J. of Exp. Ed. Psych.*, **24(4)**, 509 (2010)

Educational ecosystem development based on quality management standards

*Elena Levina**, *Elena Prokofieva*

Institute of Pedagogy, Psychology and Social Problems, 420039, Isaeva st., 12, Kazan, Russia

Abstract. The educational system is sensitive to all changes in the world space. The transition to a digital society is determined by significant changes in the philosophical foundations of human activity and creating products, especially intellectual ones. The information and digital revolutions have significantly changed the spheres of cognition, perception and human activity, putting them on the rails of continuous education in an actively developing dynamic world. In order to evolve, it is necessary to transfer the existing system of knowledge and sciences to the new, digital generation of people, to form mechanisms of continuous learning, to generate innovations - the solution to this problem lies with the education system, referring to all its levels. The change in the education model is not only about the digitalization of educational processes. The “human-centered” approach is global. The authors consider the methodology for the development of educational ecosystems as a new norm of educational activity, revealing the concepts of educational ecology and analyzing the principles of implementing the ecosystem approach from the standpoint of achieving the quality of education.

1 Introduction

The exponential growth of information, the formation of a new system of knowledge and the actualization of certain value orientations for a new civilization form a different subject matter for scientific socio-humanitarian research in the center of which is the processes of human development.

Obviously, pedagogical science plays a special role here, requiring serious methodological updates and practice-oriented transformations, including the construction of a new model of organizing education, taking into account digital opportunities.

The dominant value of pedagogy is always a person and all other areas of scientific action should be focused on him. One of the solutions seems to be the formation and dissemination of the cognitive paradigm of education, based on the appeal to multilevel methods, types and technologies of thinking, perception and processing of information in order to create the subject of his own system of knowledge and ideas in a specific subject area: the sphere of academic disciplines, the sphere of the teacher's activity and activities of the educational organization as a whole [1]. While creating the internal environment of the

*Corresponding author: frau.levina2010@yandex.ru

educational system and supporting the cognitive processes of human development, the question of organizing multidimensional educational opportunities in the era of digitalization remains open. In this context, the scientific community is increasingly beginning to discuss the issue of educational ecosystems.

According to the ecological concepts, an ecosystem is a biological system consisting of a community of living organisms (biocenosis), their habitat (biotope), a system of connections that exchange matter and energy between them [2]. "Environmental friendliness" in this context appears as the preservation of the integrity of the surrounding world when performing any actions.

The educational ecosystem takes its origins from the ecological study of human behavior, designating ecology (educational ecology) as a way of studying the connections of educational structures, organizations and systems, for example, D. Ashby (1966), L. Gremin (1977), etc [3]. The interconnectedness and multidimensionality of educational processes determines the balance of the educational system.

Lacking a stable definition at the moment, many researchers represent the educational ecosystem as a network, it is "an innovative social and educational network that unites formal and non-formal educational institutions, all members of the community with their educational needs, has a variety of sources of financial, educational and other resources and aimed at ensuring innovative social and economic development" [4].

Researchers at the Higher School of Economics (Russia) believe that the vector of the future is the real involvement of education actors in the process, when "learning will be closely related to the real world and its problems, will involve the rich culture and knowledge of local communities"[5]. It is necessary to clarify that Russian education is mostly controlled by the state, its specially created ministries and departments; therefore, the idea is correlated with the idea of implementing the guidelines of state-public education management, involving all interested parties (individual, state, business, family, society) [6, 7].

In our opinion, there are several significant gaps in such interpretations. Let's designate only some of them.

First, a humanitarian vision of sustainability is not presented. The classical pedagogical principle of "not harming", together with an orientation towards teaching, upbringing and personal development, constitutes the basis of Russian pedagogy, having put down deep roots more than 2 centuries ago. Environmental friendliness in such a view should develop in relation to all subjects of education and the educational environment, focusing, however, exclusively not on existence, but on the development of the person of the future and the preservation of traditional cultural values and meanings.

Secondly, the network organizational structure of the educational ecosystem should not only have a single coordination mechanism, but should determine a multitude of controlled (self-controlled) trajectories for achieving educational performance with a clear goal-setting and a set of actions for education actors. At the same time, all educational content should be informatively significant, carefully reviewed and aimed at innovative human development. Thirdly, reliance solely on the educational opportunities and needs of students cannot always ensure their relevance in the labor market after training, as a result of which a person may become socially and economically unclaimed. Here it is clearly necessary to coordinate the interests of all actors in education in order to build a harmonious trajectory of a person's personal and professional development.

Information openness, the global spread of alternative sources of knowledge and new digital opportunities create a huge layer of educational trajectories. A description of their systemic complexity, the formation of new mechanisms and models of learning based on the non-subject integration of knowledge, the activation and involvement of students, the design of their own learning, taking into account the need for lifelong education throughout

life in our dynamic world, based on the environmental friendliness of the goal, process and result of education.

The purpose of the article is to substantiate the characteristics of the educational ecosystem from the standpoint of achieving the quality of education.

2 Methodology for the development of educational ecosystems

Let us briefly present the methodology of our research.

1) Our vision is the prototype of a virtual universal educational organization (mixed format of online-offline processes), which recreates its own educational environment, tuned to the educational needs and capabilities of each person. We understand it as a special dynamic educational infrastructure, in which, by combining a multitude of subjects of educational processes and digital technological capabilities, conditions for learning and professional and personal development of a person are provided. This system should be hierarchical and manageable, and based on the environmental friendliness of all processes and pedagogical interactions of education actors.

2) When organizing educational processes, we base on the practical implementation of the principles, mechanisms and tools of cognitive pedagogy as a new socio-humanitarian knowledge. Cognitive pedagogy is based on the management of the processes of obtaining and generating knowledge, referring to the methods, types and technologies of information processing by a person, the processes of perception and processing of knowledge, their generation as the basis for the development of a Person, a community of people and the creation of innovative products and technologies [8]. The need for pedagogical interactions between generations of people with fundamentally different mechanisms of perception (analogue and digital generations) makes this area especially relevant [9], which globally complicates the transfer of the system of knowledge and sciences.

3) Environmental friendliness in this context means value-stable cognitive foundations of educational activities in a digital format, based on the rational interaction of educational subjects. In the educational ecosystem, a person is considered as “an integral phenomenon, both sociocultural and biosocial” [10]. Humanity, environmental compliance and social compliance are the core of a new educational paradigm to ensure the future prosperity of society in a modern turbulent environment.

4) Digitalization is a natural milestone in the technological development of mathematics, cybernetics, informatics, based on scientific and technical and technological achievements, interdisciplinary connections and continuity of methods, forms and technologies. If informatization has given us the opportunity for non-professional access to various information objects through global communications, then digitalization extends information processes to all spheres of life, “freeing” us from routine operations for other needs of the person himself and society, those where exceptional “human” qualities are needed. The continuity of scientific knowledge in this area is the metaprinciple of our research.

5) The multiplicity of hierarchies and positions of the educational ecosystem in each subject case is determined by the content and communications between participants in educational processes. Strategies for the harmonious implementation of this provision are [1]: 1) an information-cognitive approach that "works" with the processes of managing the generation of knowledge of subjects and objects of education and considering the variety of options for the development of events in the peculiarities of education: personal orientation, high variability of educational situations, cyclicity of all educational processes, temporary limitation, etc.; 2) a socio-cognitive approach aimed at a person's mastery of culture-like, nature-like and professional meanings in the framework of education, their transformation

into their own concepts of life based on a person's personal ability and self-organization mechanisms when processing new information and generating knowledge.

The highlighted theoretical basis applies to all components of the educational ecosystem that require development.

3 Research results

1. Correlation between the concepts of "educational space", "educational environment", "educational ecosystem".

Space from the standpoint of metric systems can be defined by a set of vectors with a certain set of limited rules of action (axioms). From a philosophical standpoint, educational space is defined in two ways: 1) as the world of educational objects; 2) as an object of subjective activity that forms this space [11]. From the standpoint of pedagogy, we believe that the educational space can be interpreted as a set of objects of education and pedagogical interactions of subjects of education.

Within the framework of the educational space, educational systems operate, ordered by levels of education and including a clear hierarchy of educational standards, educational organizations, executive state bodies exercising control and supervision over educational activities, as well as other education actors (employers, members of the public, science, etc.). In a sense, each educational organization can act as a component of the educational system of a certain level of education (preschool, general, secondary, higher - for Russian gradation).

Taking into account the initial stage of development of the ecosystem approach in education, we believe that now only strategies for the creation and development of educational ecosystems and its pedagogical practices, both in the digital space and outside it, are being formed and worked out [12, 13]. In the authors' view, the educational ecosystem is a subsystem of the educational system, includes elements of educational, natural and social ecosystems, is expressed through the material information system and the implementation of educational functions in a certain space-time range.

The period of the pandemic has shown new educational opportunities for hybrid (blended learning), which, according to experts, will be implemented in the post-like world, therefore, we believe that considering a digital educational ecosystem and a non-digital one is inappropriate. In our view, there are no boundaries between them; digital technologies and the level of their implementation determine the range of possibilities of the educational ecosystem.

Around educational ecosystems, their own educational environments are created - external and internal environment. The external educational environment is a part of the socio-economic system that sets external conditions and requirements for the implementation of educational activities (formal, informal). The internal educational environment is the immediate state of a dynamic educational ecosystem (an ecosystem organism) at the current moment of time, dictated by established strategies, pedagogical rules, situations of pedagogical interactions of educational subjects and local organizational and pedagogical conditions.

2. The structure of the educational ecosystem.

Educational ecosystems are built on the network interaction of objects and subjects of education with a focus on human conformity, personal and professional development of a person and groups of people throughout life.

There is a need for typologization of the characteristics of educational ecosystems, identification of its elements, "ecological niches" of education, the specifics of relations with natural and social systems. The viability of the educational ecosystem is determined by the needs of the subjects of education, the effectiveness of training in the unity of

structure and function, contributing to the sustainable and harmonious development of education in a comprehensive, systemic and natural way [14, 15, 16].

The authors propose to consider the essence of the educational ecosystem through the prism:

- relations: "man-man" and "man-society"; human-like and human-centeredness are the core of a new educational paradigm to ensure the future prosperity of society in a modern turbulent environment;

- pedagogical interactions: "person-person" and "person-society", which are revealed in detail in the description of dichotomies of subjects of education, actors of education, objects of education and society;

- educational environment, formed through the triad "society-university - family" in interaction with the global educational space;

- orientation towards the quality of education, through a system of factors and requirements (pedagogical, psychological, environmental, aesthetic, economic, etc.);

- educational strategies and technologies focused on achieving learning outcomes.

Higher education can be represented as a symbiosis of various internal factors of the education system and the interchange between education and the external social environment in such forms as: substances, energies and information, etc.

The relationship between higher education and the social environment has the same internal mechanism as the relationship between biology and the environment, which consists of the main body, the individual, the environment and other elements that have mutual influence and mutual restraint [4, 17]. It is unlikely that we will be mistaken if we say that the university (the main body) should act as the center and provider of the ecosystem of education, which determines the key, including "ecological" positions of education aimed at the well-being and success of society.

It should be noted that the value of each element is embodied through others - this is the mechanism of a typical social ecosystem. In such an ecological system, the teacher teaches the student (in fact, the exchange of material and energy information within the system) or through social practice (that is, the exchange of material and energy information between systems), establishing a balanced development of system elements and maintaining stability for the sustainable and continuous development of the system of higher education.

The leading characteristic of the educational ecosystem is its dynamic balance, which manifests itself in the educational and social environment. Symbiosis is formed as a result of interaction between all of the above elements of the educational ecosystem, and the development of the internal structure of education itself strives for harmony and balance. The benchmark of higher education will be the prospect of maintaining a natural balance between the internal and external environment of the education system. Therefore, in order to follow the path of environmental development, higher education must follow the basic natural principles and values and moral norms.

3. Principles for the formation of an educational ecosystem

We have found that it is necessary to structure and ensure the interests of education actors of educational agents (personality, state, society, business community, employees of the education system), taking into account their interaction, the inevitable conflict of interests and the level of influence on the activities of educational systems. Each of the actors has personal and social interests, while there is a so-called tendency of "growth of expectations", when the social responsibility of the educational system to society has increased several times [18, 19]. The ecosystem approach is the answer to the demand for increased social responsibility of the education system.

Hence, the conclusion follows - when developing and implementing educational ecosystems, it is necessary to ensure a balance of interests and leveling the contradictions of all actors in education. We believe that the reliance on the idea of J. Juran [20], the

presentation of quality as both a planned result and a strategic resource, fully determines the environmental friendliness of system requirements, allowing to integrate the interests of all actors in education and ensure the effectiveness of the educational ecosystem during its continuous development.

The principles of quality management (ISO 9000: 2015) are disclosed through the basic guidelines that fully correlate with the environmental friendliness of education:

- "customer orientation" as meeting consumer requirements and striving to "exceed expectations" as a range of educational services based on human conformity;
- "leadership" and "employee involvement" as ensuring the unity of goals and development of educational services through innovative knowledge and mechanisms for the implementation of educational activities, that is, the generation of knowledge by subjects of education in the field of science and education;
- "implementation of the process approach", through the detailing and management of interrelated and interacting processes of educational activity that function as an agreed ecosystem through the special principles of the ecological chain;
- "continuous improvement" as maintaining the dynamic development of educational ecosystems while maintaining the harmonious balance of the development of a modern person;
- "monitoring" of educational activities and "management of relationships" for the formation of a sustainable educational environment for the generation of knowledge and cultivation of talents.

The basis of the quality management standard ISO 9001: 2015 can be presented as the formation of educational ecology in relation to: issues of responsibility for the quality of education (educational processes provided by the ecosystem); increasing the socio-economic efficiency of educational activities at the regional level; increasing the satisfaction of educational actors; to the management system for the development of an educational organization, taking into account the assessment of the risks of environmental friendliness of education.

4 Conclusions

a) We are currently in the process of forming an educational ecosystem that is unlimited, multidimensional and dynamic. The plurality of definitions and ideas about it, including those already actually realized, do not yet allow us to give a single vision of its generalized characteristics, functions and mechanisms.

b) A global formulated approach to the development of educational ecosystems has not yet been formalized. The author's analysis of research and practice in the development of educational ecosystems made it possible to identify the main problems of ecological methodology: i) the lack of humanitarian pedagogical approaches in the formation and development of ecosystems; ii) insufficient governance structures and manageability of educational ecosystems; iii) the complexity of the normalization and standardization of education, the lack of practical orientation to the quality of education in demand by society.

c) The authors have established meta-principles for the formation of educational ecosystems, based on the cognitive paradigm of education: human conformity, nature conformity, social orientation. These principles: recreate the necessary connections and coordinates of the pedagogical interaction of education actors; form the features of the organization of the educational environment for the development of the system of knowledge and sciences, the cultural and value dialogue of times.

d) The introduction of practical, well-proven quality management mechanisms in the educational ecosystem reflects the degree of its social responsibility for the effectiveness of

educational activities, contributing to the expansion of the range of unique reserves and mechanisms for organizing and self-organizing educational processes at the university.

References

1. R. Kh. Gilmeeva, A. R. Kamaleeva, A. S. Katz, E. Y. Levina, and all. Cognitive pedagogy: teaching aid. (2020)
2. A. A. Zholdasbekov, Z. S. Sikhimbaeva, Z. A. Shyngysbaeva. Research of problems of ecological education of students. *Modern problems of science and education*. **1** (2012)
3. G. V. Vanykina, T. O. Sundukova. The ecosystem model of higher education. *Modern problems of the formation of a healthy lifestyle among students*. (2020)
4. D. A. Savkin, E. A. Loktionova, D. I. Khlebovich. Greenfield in the ecosystem of higher education: the case of the BRICS Baikal Institute. *Educational Studies Moscow*. **4** (2020)
5. P. Luksha. Educational ecosystems for the development of society. *Education* 20.35. Man. ASI.(2017)
6. E. N. Prokofieva. Educational risks within the framework of cognitive management: theoretical aspects. *Kazan Pedagogical Journal*. **4** (2018)
7. E. Y. Levina. To the problem of managing the development of education: a stakeholder approach. *Kazan Pedagogical Journal*. **6** (2015).
8. E. Y. Levina, L. Yu. Mukhametzyanova. Human development of knowledge in the perspective of the cognitive paradigm. *Kazan Pedagogical Journal*. **3** (2020)
9. M. Barak. Are digital natives open to change? Examining flexible thinking and resistance to change. *Computers & Education*. **121** (2018)
10. E. V. Petrova. Ecology of the cognitive and educational space of the digital age. *Education Development*. **3** (2019)
11. S. V. Ivanova. Educational space and the educational environment: in search of differences. *Values and meanings*. **6** (2015)
12. G. B. Kleiner. University as an Ecosystem: Institutes of Interdisciplinary Management. *Journal of Institutional Studies*. **11** (2019)
13. R. Adner. Ecosystem as Structure: An Actionable Construct for Strategy. *Journal of Management*. **43** (2017).
14. N. V. Gerasimov. Competitive environment as a factor in the formation of the university innovation ecosystem. *Postulate*. **6** (2018)
15. T. Fedorov. Moving from an educational environment to an educational ecosystem. *Young Scientist*. **28** (2019)
16. T. Xu. Research on Ecosystem Model and Elements of Innovation and Entrepreneurship Education in International Higher Education: A Case Study of MIT. *Journal of Distance Education*. (2017)
17. Y. Sitenko. The role of the university in the regional innovation system. *The Journal of Economic Research & Business Administration*. **4** (2018)
18. D. O. Koroleva, T. E. Khavenson. Innovators from within and from without the education system. *Reforms and Innovation in Education - Implications for the Quality of Human Capital* (2017)
19. O. Kolomytseva, A. Pavlovska. The Role of Universities in the National Innovation System. *Baltic Journal of Economic Studies*. **6** (2020)
20. J. M. Juran. Strategic Quality Management. *Juran's Quality Control Handbook*. **6** (1992)

Educators' and students' perceptions of online distance education before and amid COVID-19: Key concerns and challenges

*Tatiana Markova**

Ural State University of Economics, Department of Business Foreign Language, 620144 Yekaterinburg, Russia

Abstract. This paper aims to present Russian educators' and students' perceptions of online education before and during the pandemic. The author analyses the primary research data collected by the team of USUE authors via quantitative research methods, and secondary research data. Based on the empirical sociological data the author identifies the key challenges facing educators' community – negative attitudes to online teaching and learning, lack of digital pedagogy skills and ineffective interaction practices. It is concluded that in the emergency situation teachers overall managed to fit rapid curriculum transformations. Yet, university leadership and educators should come up with solutions how to address the identified challenges in online distance teaching. These solutions can involve conducting in-depth research into digital pedagogy, disseminating knowledge about the specifics of online interactions and running professional development programs for the university teachers to enhance their performance in courses delivered online.

1 Introduction

In spring of 2020, the life of people around the world changed almost overnight because of the COVID-19 pandemic. There were initiated social isolation and social distancing strategies because of which 1.5 billion students and 63 million educators around the world were forced to modify their educational practices, to suspended face-to-face instruction due to social distancing requirements and make a sudden shift to online educational practices [1]. This gave a dramatic boost to 'digital transformations' [2] of higher education system that will never be the same because there seems to be 'an invisible line' separating world events before and after COVID-19 [3].

In the last two decades, there have been published lots of articles devoted to the problems of distance education, e-learning and open education. Researchers and educators developed comprehensive approaches to address the emergence of a new learning paradigm in digital society [4]; analysed the potential of introducing information and communication technologies into the university curriculums [5]; debated about the advantages and disadvantages of online learning and teaching practices [6] considered the factors that can

* Corresponding author: tmark@mail.ru

determine the success of online educational programs [7], as well as risks posed by teachers and student.

Researchers argued that the key challenges include digital pedagogy based on the introduction of brand new teaching course design and delivery methods; a shift in communication practices from teacher-student / student-student to student- content patterns of interactions [8], and psychological readiness of major higher education actors for online learning and teaching. The use of exclusively digital technologies in teaching and learning can be fraught with the loss or degradation of basic cognitive competencies, and reduction in the quality of educational achievements [9]. The excessive emphasis on the interaction of a student with content rather than with other students and a teacher negatively affects the processes of students' socialization at the university, and does not contribute to the development of teamwork and collaboration skills that are in demand on the labour market. And finally, digital learning can manifest depersonalization of students and, as a result, a decrease in the value of the educational process and the inadequacy of evaluation procedures [10]. This fact, along with the inability of a significant part of students to allocate and plan time for independent work with educational materials, significantly reduces students' motivation for digital learning that , in turn, negatively impacts the online teaching outcomes.

Overall, unless these challenges are met, they can become serious barriers to the success of online distance education resulting in low satisfaction rates and high dropout rates due to the severance of social ties, degradation of basic cognitive competences and reduced quality of learning outcomes. Despite such a comprehensive research into the issues of online learning and teaching, hardly anyone could imagine that in 2020 millions of teachers and students around the world will have to be exposed to all these risks and challenges because of COVID-19 pandemic outbreak.

Russian universities, like universities in other countries, were forced to switch to distance education format within two last weeks of March 2020. Over 80% of all Russian higher schools and universities had moved online by March, 23 [11], and found themselves in so called 'new normality' [12] characterized by physical and social distancing, excessive learning and teaching workloads, necessity to work and study from home and violation of work-life balances. Almost overnight all prior discussions regarding pros and cons of online learning and teaching became not so relevant because virtual reality has become an indispensable part of everyone's day-to-day educational activities. This posed a great challenge to the key higher education social actors (faculty, students and university leadership) who had to quickly adjust to 'new normality' and withstand the pressure of 'forced innovation' [13] Even though the full impact of the COVID-19 pandemic on Russian higher education is still to be reflected and evaluated, but it is obvious that this pandemic has radically changed the way of learning and teaching at universities and the university will never be the same as before the pandemic.

In literature, most attention is given to students' perceptions of their online studies, concerns about the quality issues and satisfaction rates. Not so many publications highlight the experiences of teachers and challenges they were posed to, however, those that have been published show how traumatic and stressful this time was to the faculty in terms of social-psychological and professional transformations [14]. Overall, it can be stated that educators had no choice but to adapt to the new normality and all aspects of educators' professional activities were subject to dramatic changes: course design; course delivery and assessment; research and communication patterns.

This paper aims to analyse Russian educators' and students' perceptions of online education during the pandemic. To what extent were teachers and students ready for such rapid transition to online education format? How do they evaluate the experiences gained? What challenges were they posed to? What are greatest concerns of social actors regarding the complete transition to online distance learning practices?

2 Materials and methods

This article is based on the primary and secondary research findings.

The students' survey was conducted by a group of researchers of Ural State University of Economics (USUE) in the fall of 2015 ($n = 703$) and in early 2016 ($n = 830$). Population was made by students of Ural State University (USUE) and Ural Federal University (UFU). The questionnaire included the following sections: the use of technologies and resources, the effectiveness of online distance learning, motivation in choosing this form of study and problems encountered during the training, student-student and student-teacher interactions, students' knowledge self-assessment, students' satisfaction with the quality of education [6, 15].

In 2018, the Department of Applied Sociology (USUE) conducted a survey of the USUE teachers' opinions on open education, a representative quota sample for institutes ($n = 85$).

The article also uses secondary data obtained from the Analytical Report "Lessons from the 'Stress Test'. Universities in the context of the pandemic and after it" [11]. The Report is based on the findings of teachers' and students' surveys and interviews with teachers carried out in March-April 2020.

3 Results and discussions

3.1 Educators' and students' perceptions of online distance education before COVID-19 pandemic

In the teachers' survey conducted two years before the outbreak of the pandemic (2018), the majority of teachers stated that they were not ready for the introduction of online distance education mode. The respondents pointed out that the regulatory legal documents for the introduction of elements of online education into full-time education are not elaborated enough (35%), there are no appropriate teaching materials (36%), and universities lack appropriate infrastructure for shifting teaching and learning to online environment (31%). In addition, 14.1% of teachers admitted that they did not have a sufficient level of information and communication technologies (ICT skills). According to the teachers surveyed, at the moment the online education model "has not yet been elaborated, there are many negative points in it" (39.8%) and, moreover, 20.5% pointed out "I have a negative attitude to the idea of online education; I think it is highly likely to destroy the education system integrity." At the same time, 19.3% indicated "I generally approve this education mode as positive and progressive."

The survey findings (2018) correlate with the findings obtained from interviews with teachers of leading universities on the eve of the transition of universities to remote education mode [11]. In 2019, the overwhelming majority of teachers (88%) perceived the online distance education quite negatively and did not consider the remote learning and teaching format as a full-fledged replacement for the traditional full-time format. They expressed great concerns regarding the rapid spread of digital technologies in higher school.

The students' survey in 2015-2016 revealed that course designers and instructors failed to utilize the enormous interactive potential of Internet-based teaching. Despite generally positive perceptions of teaching staff competences regarding distance teaching, less than 50% of students were satisfied with the emotional contact with their instructors and only 30.5% supported the statement that online distance learning promotes interactive teacher-student communication. Among the key online learning challenges students pointed out the follows: "high level of self-learning" (53.8%); "need for self-organization" (31.1%); "lack of emotional communication with the teacher" (31.1%), "lack of teacher control" and 'sense of

isolation' (13.1%). These problems highlighted the fact that many remote students lacked the appropriate qualities and skills for successful participation in distance learning programs. More importantly, the findings of the survey conducted four years before the pandemic revealed that students are not rendered appropriate psychological and educational support to ensure their satisfaction with learning outcomes. It was clear that educators need to promote digital pedagogy and learn how to organize, guide and encourage students studying at a distance.

Teachers were also critical of social interaction and communication prospects in the context of online distance education. According to the teachers' survey (2018), 36% did not agree that their lectures should be recorded and then posted online. From 6% to 23% of respondents agreed to this, but subject to a number of conditions: with the partial preservation of 'live' lectures (15.7%), with an increase in hours for in-person practical classes (22.9%), for consultations (16.9), for credit events (6%). The main drawback that teachers pointed out was the lack of real (live) contact between the teacher and the student (89.4%).

3.2 Educators' and students' perceptions of online distance education amid COVID-19 pandemic

Given quite low state of readiness for online teaching prior to the pandemic, it is obvious that Russian teachers faced great challenges in the transit to online teaching and learning. Some Russian researchers report that at the start of the pandemic educators' key challenges involved their computer literacy and availability of infrastructure and technical support [16]. This might be true but the university leadership took all the necessary measures to ensure that teachers are equipped with all the necessary digital skills. These measures included setting up sites with necessary technical support information and training materials, launching on-purpose-designed webinars about the use of LMS (Learning Management Systems), etc. Due to these measures, teachers were able to upgrade their technical skills fairly quickly. Overall, the majority of Russian students give a positive evaluation of teachers' readiness for transit to online teaching and learning in the first weeks of the pandemic (57%) [11].

What posed a real challenge to Russian educators as well as their colleagues around the world was lack of expertise essential for digital pedagogy required for teaching courses online [3]. Depending on the technology available at the university, educators conducted classes in synchronous, asynchronous and blended formats. They had to redesign and adapt their teaching materials, and arrange teaching facilities, trying to respond to students' needs. The teaching activities became extremely stressful and time consuming, the workloads increased dramatically. The problem was that a big proportion of teachers had no online teaching experience before the pandemic outbreak. Among Russian respondents 60% teachers rarely or never have conducted lectures and seminars in a remote format or in webinar format [11]. Similar problems with digital pedagogy experience reported around 50% of educators around the world [17].

Along with difficulties in delivering classes online educators encountered problems with student engagement and concentration during classes. As for engagement, teachers experienced great difficulty maintaining the same level of student engagement as in traditional classroom environment due to the lack of face-to-face verbal and non-verbal communication that contributes to establishing a good rapport with the students' audience, relationship-building and active involvement of students into the classroom educational activities. Given these traditional tools were not available in the conditions of online teaching, over a half of teachers expressed doubts about the possibility to control student engagement in the online educational process.

These findings correlate with those obtained during students' surveys [11], when students complained that they were mainly deprived of the opportunity to discuss, cooperate and

interact with their peers and teachers during online classes. Even though many educational institutions used videoconferencing facilities to offer courses to their students via Zoom and Microsoft Teams, students report communication and engagement problems. Three quarters of those surveyed indicated that they faced these difficulties. The most common problems students experienced during online learning include: lack of communication with groupmates (35%); lack of face-to-face interactions and discussions with teachers (34%); difficulty addressing teachers with a question during online classes (35%). In addition, students reported such problems as: focus on self-studies (29%), it is difficult to study in the home environment (28%), it is more difficult to address a teacher with a question (27%), a feeling of loneliness and isolation (25%).

Overall, students used to traditional in-person learning and teaching found themselves uncomfortable in the conditions of the formalized and tightly regulated teacher-student interaction in the online environment. Dramatic changes in patterns of verbal and non-verbal communication led to severe difficulties in assimilating the educational material presented online and low satisfaction rate with quality of education and overall learning outcomes. The faculty hold a strong belief (90%) that online learning and teaching cannot ensure the quality of education compared with the traditional face-to-face learning and teaching. From those who took part in the survey in 2020, 60% would like to move back to the traditional teaching mode. Thus, a noticeable part of teachers is reported to have certain negative attitudes regarding online formats, which have practically not changed during their remote teaching. As for students, around a half of the respondents are sure that their learning became less effective after the shift to online distance education.

In literature, there can be found ample evidence that problems faced by Russian university teachers are not unique in their nature. Researchers and educators from around the world report similar experiences and dramatic impacts of the forced transition to online distance learning on educational practices. It would be fair to say, that this unique exposure to ‘emergency remote teaching’ [18] contributed to much better overall understanding of the toolkit educators need to deliver teaching online effectively. Like in case with Russian university teachers, educators from other countries identified a deep competence gap in digital skills and digital pedagogy [19], as well as interaction modes [20].

Teaching belongs to the group of ‘communicative occupations’, in which the performance of professional functions is not possible without the effective use of communication, since it acts as the main means of professional activities. There have always been high professional requirements for university teachers in terms of their ability to establish and maintain relationships with students, understand their psychological characteristics, render support and encourage students’ motivation to achieve learning outcomes. In addition to effective communication, teacher’s public speaking skills and the ability to the audience attention have also been of paramount importance in the traditional classroom settings. The teaching experience gained throughout the academic year of 2020 emphasized how essential the teacher’s role is not only in transmitting knowledge but also in supporting students and attending to their needs.

4 Conclusion

In conclusion, we all have gained a unique, once-in-a-lifetime experience when all higher education institutions went online within two weeks. The profound research into the experience of those who were directly involved into these processes is still ahead, because the pandemic is not over and we are still part of on-going digital transformations.

What can be said right now is that university teachers and students overall managed to fit rapid curriculum transformations to the extent that was acceptable in these emergency conditions. Yet, we identified concerns that need to be resolved for further consistent

development of online distance education. These concerns are brought about by the educators' and students readiness for online distance learning and their attitudes to online educational practices, as well as the lack of expertise essential for digital pedagogy and appropriate interaction practices. Now, the university community does realize that true online education requires much more than just moving the curriculum online. Given many familiar educational practices turned out to be less effective online than offline, the transition to online education calls for the use of a different toolkit of teaching, interaction and communication methods.

Higher education stakeholders should come up with solutions how to address the identified challenges in online distance education. These solutions can involve conducting in-depth research into digital pedagogy, disseminating knowledge about the specifics of online interactions and running professional development programs for the university teachers to enhance their performance in courses delivered online.

References

1. World Bank Education and COVID-19, <https://www.worldbank.org/en/data/interactive/2020/03/24/world-bank-education-and-covid-19>
2. V. Laterza, C. E. Tømte, R. T. Pinheiro, Nord. J. Digit. Lit., **15**, 225 (2020)
3. S. Bhagat, D. J. Kim, Inf. Syst. Manag., **37**, 366 (2020)
4. T. Anderson, P. Rivera-Vargas, Digit. Educ. Rev., **37**, 208 (2020)
5. G. Dhanarajan, Open Learn., **16**, 61 (2001)
6. E. N. Zaborova, I. G. Glazkova, T. L. Markova, Sociol. Stud., **2**, 131 (2017)
7. P. Rovai, J. R. Downey, Internet High Educ., **13**, 141 (2020)
8. M. Moore, W. Anderson, *Handbook of Distance Education* (Lawrence Erlbaum Associates, Mahwah, 2003)
9. N. B. Strekalova, Bulletin of Samara University History, Pedagogy, Philology, **25**, 84 (2019)
10. E. V. Borisova, Human Capital, **3**, 104 (2020)
11. V. N. Falkov, *Lessons from the 'Stress Test'. Universities in the context of the pandemic and after it* (Higher School of Economics, Moscow, 2020)
12. M. Tesar, Policy Futures Educ., **18**, 556 (2020)
13. B. Yang, C. Huang, Stud. High. Educ., **46**, 121 (2020)
14. H. de Boer, Stud. High. Educ., **46**, 96 (2020)
15. T. Markova, I. Glazkova, E. Zaborova, Procedia Soc. Behav. Sci., **237**, 685 (2017)
16. N. Almazova, E. Krylova, A. Rubtsova, M. Odinkaya, Educ. Sci., **10**, 368 (2020)
17. D. Lederman, Inside Higher Ed (2020), <https://www.insidehighered.com/digital-learning/article/2020/04/22/how-professors-changed-their-teaching-springs-shiftremote>
18. A. O. Mohammed, B. A. Khidhir, A. Nazeer, V. J. Vijayan, Innov. Infrastruct. Solut., **5**, 1 (2020)
19. F. J. Garcia Penalvo, A. Corell, Campus Virtuales, **9**, 83 (2020)
20. M. J. Sá, S. Serpa, Sustainability, **12**, 8525 (2020)

Effectiveness of traditional and online learning: comparative analysis from the student perspective

*Elena Makarova**

Ural State University of Economics, Department of Business Foreign Language, 620144 Yekaterinburg, Russia

Abstract. The article discusses challenges of effective learning in classroom and online environments from the student perspective. The aim of the study is to analyse university students' perception of advantages and disadvantages of digital education. The article presents comparative analysis of traditional classroom and online academic environments as viewed by first- and second-year Russian students majoring in management and economics. The study is a questionnaire-based research. Quantitative and qualitative research methods were applied to achieve study's objectives. Special attention was paid to the analysis of students' perception of a modern university teacher role in the classroom and online settings. The findings prove positive attitude of the respondents to digital learning and showed students' awareness of the barriers to effective distance learning, including their laziness and inability to concentrate. The research results can help practitioners and educators better understand students' learning needs and assist them in achieving academic success.

1 Introduction

Establishing a system of sustainable development in higher education has been declared as the aim of ENTEP Project [1]. This implies improving quality of education, which can only be reached by continuous professional development. Modern university teachers have to possess the ability to face new challenges arising from constantly changing teaching and learning environment, including digital transformation of education settings. These rapid changes have a serious impact on teachers working in higher education system. New academic reality and growing demands for highly professional graduates, who must be prepared to lead sustainable lifestyle, account for the necessity to redefine the role of a modern teacher [2]. Training students for working in digital economy, which is regarded as the main task of higher educational institutions today, demands developing teachers' ability to use digital technologies [3]. Digital competences of teaching staff can be trained in professional development programs [4], participation in which enables teachers to meet the growing demands of 21st century education.

* Corresponding author: makarovayn@mail.ru

In spite of the fact that online education is rapidly increasing and growing, many problems remain unresolved. As a result, its challenges and issues continue to be in the focus of practitioners and researchers' attention [5]. Along with online education recognition, its disadvantages are widely discussed and debated [6; 7]. Even though it is often the subject of criticism, there is no chance to get completely back to traditional learning and teaching. This inspires researchers and teachers to continue seeking practices which could help the improvement of online teaching and learning in the context of higher education [8]. Analysis of effectiveness of university distance learning is relevant as it promotes quality of education and enables students' academic success. Understanding of student's perception of the difference between traditional and online learning challenges can help identify students' needs and develop ways of improving teaching methods.

The key problem of online education in comparison to traditional learning and teaching is considered to be a lack of social presence [9]. Another issue that concerns most practitioners, is students' academic performance, their progress [10] and its evaluation in full-time and distance study. Not sufficient research has been conducted in this field from student's perspective: "students' perceptions towards online learning as compared to traditional face-to-face learning have largely been overlooked" [11].

The aim of this paper is to examine Russian students' perception of traditional and online education processes. The objectives to achieve this aim are the following: to provide comparison of online learning to traditional one from student's perspective, to determine teacher's role online and in the classroom settings as seen by the students, to identify challenges and problems students face when learning at distance and in face-to-face class.

2 Materials and methods

A variety of methods were used to pursue the objectives of the study. Data were gathered by interviewing and surveying 38 Russian university students, who were required to answer 15 close-ended and open-ended questions. 28 of the respondents are first-year students majoring in economics, 18 are in their second year, their major is management. Quantitative and qualitative methods were applied for the data analyses.

3 Results and discussion

The questions of the survey concerned students' attitude to online and traditional forms of education; difficulties, they experience in distant learning, its advantages and disadvantages. The students also were asked about differences in teacher's role when teaching in the classroom and at distance.

28.9% of the respondents answered that they preferred traditional learning and teaching. 26.3% of the students, which is quite close to the first group, chose online education environment as preferable. About half of the students (44.7%) said they would be satisfied with combination of these two and preferred hybrid learning (Figure 1).

Hybrid education is considered an effective way and allows to combine traditional classroom activities, innovative teaching and learning techniques, and elements of digital education, depending on learning objective [12].

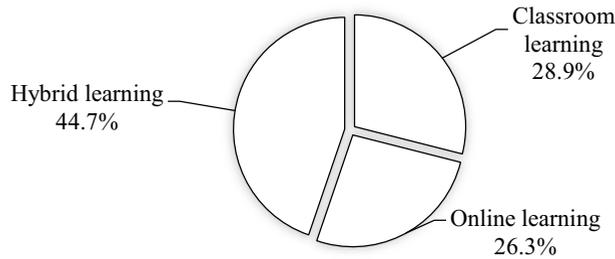


Fig. 1. Preferred forms of education

As viewed by the students, advantages of distance education in comparison to learning in traditional classroom settings are quite numerous. Saving time ranked first in this list. Over 80% of the respondents added that they live far from the university and learning at home or in the students' hostel help save not only their time but also money (transportation fare). The time which is saved this way, according to the respondents' answers, can be spent on sleeping longer and working (combining university studies with work). "Availability" and flexibility of learning ranked second: absence of necessity to be physically present in the classroom gives students a possibility to choose any learning setting, including outdoors. Extra time also helps the respondents plan their activities in most efficient way. 20% of the participants mentioned "comfort" as one more advantage of staying at home. Only 10% of the students' answers related to the description of advantages of educational process itself: online learning, in their opinion, implies extensive use of innovative informational and communication technologies, teacher's individual approach to student's needs and teaching creativity. Overall, the results prove positive perception of implementation of distance learning by the majority of the students, even though the reasons for such favourable attitude vary. About half of the students perceive distance learning as a process having no serious weaknesses. Some disadvantages of digital education, as seen by the rest of the respondents, include the following: learning material is difficult to understand, students are less involved in education process, there is a lack of direct teacher-student communication and students' socialization. About 20% of the respondents mentioned internet connection problems. Other disadvantages include insufficient technology skills of teachers, "screen fatigue" (tiredness of spending too much time in front of a computer) and a lack of motivation to learn.

Comparison of challenges and problems experienced in the classroom settings and learning online shows students' ability to analyse their academic performance and factors causing their low academic achievements. Among difficulties in online education about 20% of the students named their laziness and inability to concentrate and focus on the process of learning. Five students mentioned poor quality of internet connection, growing amount of homework in comparison to traditional learning, difficulties in material perception, a lack of teacher-student communication and absence of a possibility to ask their teacher a question. However, more than a half of the respondents experience no difficulties when learning at distance. Analyses of problems and challenges in the classroom settings showed correlation with the answers to the questions about advantages and disadvantages of learning in the classroom and online. Most students face no difficulties in the process of traditional learning. Anyway, some respondents complained of waste of time and money (getting to and back from university), a lack of enough sleep, and difficulties in combining work and studies.

Comparison of students' perception of the role of a university teacher in traditional and distance learning is given below. When answering the open-ended question about the role and functions of a modern teacher in the classroom, about 80% of the students named "teaching" and "transferring subject-related knowledge". The absolute majority of survey respondents wrote that they expected from their teachers "to teach well", "to teach in understandable way", "to explain in simple words", and "to give subject-related material in

an interesting way”. Two students chose such roles of a teacher as a “mentor” and a “tutor”. Anyway, only 13% of the participants identified a teacher with a person who helps understand the material and answer students’ questions, assists in solving problems, arising in the process of education, and communicates effectively. These data contradict students’ perception of the qualities a university teacher must possess. Giving a portrait of a modern teacher, students concentrated on personal characteristics, describing personality traits rather than professional qualities, for example, patience, inspiration and willingness to inspire students, flexibility, creativity, frankness, sincerity, ability to admit mistakes, to understand students, and to communicate effectively, kindness, responsibility, sensitivity, and humanism. About 30% of the respondents mentioned usage of modern technologies as an essential skill for a modern teacher. When answering the question about teacher’s ability to create effective classroom environment, more than 92% of the respondents confirmed teacher’s power to improve classroom atmosphere. All the students agreed that a teacher can promote students’ motivation to learn and encourage their involvement in education activities. Answers to these questions demonstrate, that in spite of perceiving a university teacher as a person who transfers knowledge, absolute majority of survey participants believe that an effective teacher should possess a certain number of personality traits. The study findings show that university teachers can have a considerable impact on student’s academic success and development and increase motivation to learn. Connection between teacher power use and self-perception of learner empowerment is discussed in the article by A. Diaz, K. Kathryn and N. Karlyn [13]. Considering results of students’ interviewing, the authors address the issues, answers to which are crucial for modern academic environment, for instance, what good and bad teachers do and what all teachers should know. The findings of the study show that teacher’s reward power manifestations, such as being complimented by the teacher before classmates or receiving affirmations, are significant for student’s academic progress. Among other strongest factors to motivate and promote student achievement, the authors name positive teacher-student relationships [14]. “Student pedagogical teams” are known to be an effective form to improve teacher-student cooperation [15]. Being engaged in this activity students can provide feedback on course content and structure as well as instructor performance. In this case students act as teachers’ partners, and teachers get a tool to evaluate and improve quality of teaching.

90% of the students consider that when teaching online a university teacher should perform the role of a transferer of subject-related knowledge. The answer “same as teaching in the classroom” was the most common. Among significant characteristics of online teacher, the respondents also listed strong computer literacy and ability and desire to involve every student in the process of learning. As for effectiveness of teacher-student interaction, 39.5% of the students would choose direct communication in the classroom, 15.8% would prefer to interact with their teachers online, 44.7% see no difference and consider, that way of communication has no significant impact on teacher-student interaction (Figure 2).

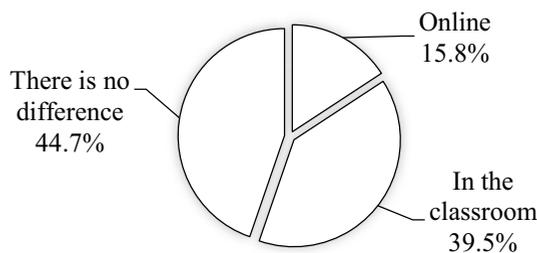


Fig. 2. Preferred forms of teacher-student interaction

4 Conclusion

The results of the research show that majority of the Russian students, who participated in the study, have adapted to online environment and most would prefer keeping its elements in the future, combining classroom activities with distance learning. More than 50% of the respondents see no serious disadvantages in digital education in comparison to traditional teaching and learning. The same number of students do not experience difficulties in distance learning. Students' views on the effectiveness of distance education prove that they see no serious obstacles for making academic progress when learning online. The survey answers also show that the students perceive a university teacher as a transferer of subject-related knowledge and consider it to be the main role to perform both in the classroom and teaching online. Among significant characteristics of online teacher, the respondents also listed strong computer literacy and ability and desire to involve every student in education process. At the same time, it is apparent that Russian students expect their teacher to combine professional and positive personal characteristics and skills.

More information on students' views about online education would help establish a greater degree of accuracy and better understand students' needs. Involving different groups of respondents, for example, third- and fourth-year students, who are more experienced in traditional classroom learning would enable more precise comparison of students' perception of digital learning. Further research needs to be done to compare students' and teachers' understanding of advantages and disadvantages of online education. Issue of students' responsibility for the results of their academic performance also looks promising for further study.

References

1. ENTEP Joint Project, <https://entep-tudresden.de>
2. I.E. Abramova, E.N. Makarova, *Perspect Sci Educ*, **44**, 415 (2020)
3. G. Falloon, *ETR&D*, **68**, 2449 (2020)
4. İ. Reisoğlu, A. Çebi, *Computers & Education*, **156**, 103940 (2020)
5. S. Palvia, P. Aeron, P. Gupta, D. Mahapatra, R. Parida, R. Rosner, S. Sindhi, *JGITM*, **21**, 233 (2018)
6. R. Fojtik, *IJICTE*, **7**, 14 (2018)
7. N.A. Sokolova, A.A. Pylkin, O.A. Stroganova, K.G. Antonian, *EpSBS*, **51**, 1478 (2018)
8. A. Sun, X. Chen, *JITE: Research*, **15**, 157 (2016)
9. K. Kear, F. Chetwynd, H. Jefferis, *RLT*, **22**, 1 (2014)
10. R. Fojtik, *Procedia Soc Behav Sci*, **182**, 402 (2015)
11. F. Alsaaty, E. Carter, D. Abrahams, F. Alshameri, *BMR*, **5**, 31 (2016)
12. H. Pratiwi, S. Sujito, H. Ayu, A. Jufriadi, *ANCOSH*, **1**, 326 (2018)
13. A. Diaz, K. Cochran, N.J. Karlin, *College Teaching*, **64**, 158 (2016)
14. S. Akhtar, M. Hussain, M. Afzal, S.A. Gilani, *Eur Acad Res*, **7**, 1201 (2019)
15. L. Hayward, S. Ventura, H. Schuldt, P. Donlan, *College Teaching*, **66**, 37 (2018)

Enhancing teaching practices at Penza State University

*Sergei Vasin*¹, *Tatiana Razuvaeva*^{2*}, *Konstantin Korolev*³

¹Penza State University, 440026, 40 Krasnaya Street, Penza, Russia

²Penza State University, International Projects Department, 440026, 40 Krasnaya Street, Penza, Russia

³North-West Institute of Management, the Presidential Academy of National Economy and Public Administration, 199178 Russia, Saint-Petersburg, Sredny prospect VO, 57/43

Abstract. The article examines the major challenges that Russian higher education institutions face while introducing the principles of the Bologna Process into current teaching practice. Their participation in the international projects together with European HEIs is seen as one of the possible ways to overcome the encountered difficulties. The role of the Capacity Building projects under the Erasmus+ Programme is illustrated by an example of Penza State University and its involvement in the ENTEP project (Enhancing Teaching Practice in Higher Education in RUSSIA and CHINA). The main stages of implementing the project at PSU are revealed, the project outputs and outcomes are described, as well as the perspectives for further adaptation of the project results are outlined. The article describes the professional development course “Enhancing teaching practices at PSU”, which was developed within the ENTEP project and offered for teaching and administrative staff of the university. The project contribution at the university is assessed in terms of adopting the best teaching practices in the context of the Bologna Process and European Higher Education Area.

1 Introduction

Over the past two decades, European higher education has successfully undergone fundamental changes at the systemic and institutional levels associated with national reforms, Bologna Process, and European Union initiatives. Consequently, student-centred teaching and learning, quality assurance and learning outcomes are the key elements of higher education in Europe today.

The consensus is absolute on the need to further improve access to education for all citizens, to build capacity for their inclusion in the teaching and learning process, and to ensure diverse educational experience. Expanding the scope of teaching and innovative pedagogy, strengthening the connection between education and research, promoting the use of new technologies for teaching and learning, as well as raising awareness of the importance of higher education for the individual and society as a whole are the topics on

* Corresponding author: intoffice@pnzgu.ru

the agenda, which are discussed and actively explored at the national and institutional levels throughout the EU.

The Russian Federation became a full-fledged member of the Bologna Process in 2003 upon joining the Bologna Declaration. The national laws and regulations that ensured the legal status of the Bologna Process implementation in higher education were significantly amended following that decision. In addition, the Ministry of Science and Higher Education prepared several steering documents to stimulate Russian higher education to integrate the values of the European Higher Education Area.

Establishing the legal basis for transformations provides opportunities for reviewing and reshaping education stakeholders, but this requires HEIs to develop brand new approaches to education planning, management and implementation and, primarily, to teaching and learning.

2 Relevance and background

Despite the fact that the basic principles of the Bologna Process have been legally institutionalised in the Russian Federation, national higher education institutions still face some challenges concerning its implementation:

1. The adherence to the Bologna Declaration is not fully accompanied by reorganising and restructuring the system of Russian higher education;
2. There is a gap between the official documents and academic environment, as these steering documents have a declarative nature and do not produce specific recommendations;
3. Teaching and administrative staff of higher education institutions require relevant expertise and experience to adapt the Bologna Process and European Higher Education Area to their teaching practice;
4. Student-centred teaching and learning are viewed as a basic approach to higher education that is not substantiated by the reliable and practical guidelines;
5. The correlation between the National Educational Standards and Qualification Frameworks is limited, so that many professional fields have not been governed by the Qualification Frameworks yet.

Teaching staff in the Russian Federation traditionally receive very good education corresponding to their study field [1, 2]. However, this system is not designed to systematically train teachers for higher education institutions with due regard to the specific features of higher education. Their training (normally carried out through internships, postgraduate and doctorate studies) ignores the prognostic model of future outcomes in graduated specialists and excludes the latest achievements in pedagogy and psychology of higher education, as well as fails to recognize the legislative requirements for teachers of higher education institutions presented in the official documents. Teaching staff have little opportunity to undergo continuous training in order to explore the up-to-date teaching methods and approaches (especially, student-centred teaching and learning) and complement their teaching with new technologies.

Staff development and teaching competency improvement are identified as the major aspects in enhancing teaching and learning. Within the European Higher Education Area, the most common initiatives are teacher training and lifelong learning, which are provided by HEIs through professional development courses. The compulsory courses are offered by 37% of institutions, in 77% of cases the courses are optional.

It is obvious that professional development courses for improving teaching competency may be compulsory due to the policy of educational institutions, external requirements and need to motivate staff. HEIs with centres for teaching and learning more systematically

advance teaching competency of their staff and build their capacity: 93% of such educational institutions offer additional staff development courses, 50% – compulsory ones.

However, quality teaching in most higher education systems may be assessed, but tends not to make a big difference in the career development of teaching staff in contrast to research performance, which remains a more important factor. This is typical of Russian universities as well.

3 Ways to address the identified challenges

In order to improve the professional and pedagogical competencies of higher education teachers in the context of the Bologna Process, Russian universities have been incorporating the following mechanisms:

- promoting academic mobility programmes with European higher education institutions for teaching and academic staff;
- providing teaching staff with professional development courses and lifelong learning programmes with the view to psychology, pedagogy and methodology;
- involving experts in the delivery of open lectures, master classes and trainings on integrating the Bologna Process principles and instruments into the educational activity of the universities.

The opportunities for introducing advanced teaching and learning practices include closer cooperation with European partners, implementation of joint initiatives, and exchange of experience and study of best practices.

Penza State University has been taking an active part in this programme since 2015. Currently it is a member of the ENTEP consortium, which implements the project “Enhancing Teaching Practice in Higher Education in RUSSIA and CHINA”. The project wider objective is to contribute to the higher education reform in the Russian Federation and the People’s Republic of China through establishing a system of sustainable professional development in higher education following the best EU teaching practices and equipped with contemporary innovative teaching methodologies and pedagogical approaches with the emphasis on quality and regulation. This objective is achieved through establishing and operating the Centres for Teaching and Learning Erasmus+.

Within the ENTEP project, Russian and Chinese partners under the guidance of European experts address the common issues of advancing higher education, primarily improving the pedagogical competencies and teaching skills among teachers of higher education institutions, who do not have a degree in teacher training in the field of higher education. In addition, PSU Development Strategy focuses on improving the quality of education in line with the Bologna Process and in accordance with the national and international quality standards. PSU need for participation in the ENTEP project stems from the existing problems in improving professional competency of teaching staff:

- at the institutional level there are no systemic mechanisms linking teaching activity with teaching competency formation / improvement;
- HEIs do not offer professional development courses for teaching staff to form / improve their teaching competency;
- teaching staff are not fully aware of best practices and approaches to classroom management developed and adopted within the European Higher Education Area;
- the extent of understanding and applying the principles of student-centred teaching and learning based on learning outcomes varies among teaching staff.

The comprehensive analytical study carried out under the project in 2018 – 2019 included:

- designing a questionnaire to identify challenges and needs in higher education;

- interviewing teachers from Russian and Chinese universities participating in the project;
- evaluating the results obtained and preparing an analytical report.

The analysis of the survey results identified the major challenges in teaching management in Russian and Chinese HEIs [3]:

1. When planning classes: teaching staff tend to plan classes based on developed programmes regardless of student individual needs; they have difficulties in correlating available teaching and learning materials and requirements for degree programmes, in adapting discipline content to student needs, in conforming time costs and available resources;
2. When conducting classes: teaching staff face difficulties in selecting and adopting methods and techniques to encourage and motivate students; they have insufficient knowledge about working with students with special educational needs;
3. When assessing learning outcomes: teaching staff encounter difficulties in selecting and developing tools for student learning outcomes assessment, in defining assessment criteria and performance indicators.

Following the study, the ENTEP consortium developed the Didactic Manual and Guide. The ENTEP Didactic Manual comprises a comprehensive set of professional guidelines and teaching tools for higher education teachers and leaders and enables them to select the most appropriate teaching strategies in both online and face-to-face contexts [4]. The ENTEP Guide gives an insight to designing modules and their components centred on learning outcomes [5]. These materials are used in the Centres for Teaching and Learning Erasmus+ to introduce trainees of the professional development courses to the contemporary teaching practices.

At Penza State University, the Centre for Teaching and Learning Erasmus+ was created in 2019. The Centre aims at promoting student-centred teaching and learning at the university within the Bologna Process, fostering professional development of higher education teachers, upgrading academic curricula, working out innovative courses to be implemented into master and postgraduate curricula. In addition, it provides teaching staff with academic support through its courses, services, and resources, facilitates regular collegial shadowing between teachers and encourages collaboration among PSU teaching and administrative staff to stimulate innovations in teaching and learning.

Since January 2020, the centre has been offering a professional development course “Enhancing teaching practices at PSU” for teaching and administrative staff of the university. This course is delivered by a team of five teachers, who completed trainings at European partner universities in autumn 2018 and designed the course programme under the guidance of European experts and in line with the Didactic Manual and Practical Guide. When developing the course, the foreign practices of constructing the models for professional development of teaching staff were also considered [6, 7, 8].

The aim of the professional development course is to increase teaching competency of university staff in the new student-centred learning environment based on the pedagogical innovations of the European Higher Education Area. In order to achieve this aim, the following objectives are set:

- to help trainees improve their knowledge and professional skills in designing outcome-oriented curricula and integrating the principles of student-centred teaching and learning and requirements of the National Educational Standards and Qualification Frameworks;
- to provide trainees with the opportunity to upgrade their skills in applying innovative assessment and supporting feedback approaches and techniques fit for learning outcomes of the discipline;

- to introduce trainees to the innovative teaching methods and approaches in the new student-centred learning environments.

The course consists of several modules. They are: “Curriculum development and learning outcomes”, “Assessment and feedback”, “Classroom management”, “Innovative teaching approaches and methods”, “Integration of innovative information technologies into teaching practice”. It sets a comprehensive assignment for trainees to modify the programmes of the disciplines they teach.

From January to November 2020, 71 staff members underwent the professional development course at PSU Centre for Teaching and Learning Erasmus+. As the follow-up of the course, they responded to a questionnaire, which was designed to measure their satisfaction, receive feedback and make adjustments to the course in the future. We analysed the replies of trainees and obtained the following results:

- 92% of respondents noted that the aim of training was clear in advance, its content was well structured, the information was provided in a comprehensible manner, the materials (handouts, presentations, etc.) were useful and relevant;
- 95% of respondents outlined their plans to apply gained knowledge in designing and conducting classes in the future.

However, 50% of trainees in the first group expressed their desire to learn more specific examples of integrating student-centred teaching and learning into the delivery of disciplines within their study fields. Later this problem was partially solved, since the team of the centre is interdisciplinary (Foreign Languages, Economics, Computer Science, Linguistics, Chemistry), and each trainer selected examples from the corresponding study field.

All trainees also highlighted the practical focus of assignments, namely designing outcome-oriented programmes of the discipline they teach. On successful completion of the course, they not only explored new materials, but also received a specific product that can be used in their teaching practice.

In the context of the challenging epidemiological environment, the fifth module of the course dedicated to the integration of innovative information technologies into teaching has acquired particular significance. The principles of online learning, blended learning and flipped learning, the features of using e-learning tools for assessment and feedback, as well as the outline of collaborative e-learning tools and activities aroused interest among trainees, as all classes at Penza State University have been conducted online since March 2020.

In addition to operating the Centres for Teaching and Learning Erasmus+ and running the professional development courses, the ENTEP project focuses on modernising the existing master and postgraduate curricula in partner higher education institutions through introducing modules on Teaching Methodology, Pedagogy and Psychology.

To date, some PSU staff members, who completed the professional development course “Enhancing teaching practices at PSU”, have modified the content of such disciplines as “Methods of Teaching Economic Disciplines” (Master’s degree programme International Economy), “Modern Approaches to Teaching Foreign Languages” (Master’s degree programme Teacher Training: Language Studies) and “Pedagogy and Psychology of Higher Education” (Postgraduate programmes) in line with student-centred teaching and learning and with regard to the revised learning outcomes.

Through the implementation of professional development courses, more and more higher education teachers familiarise with innovative teaching practices and modern teaching methods, principles of student-centred teaching and learning and basics of designing outcome-oriented programmes. Thus, innovative assessment and supporting feedback approaches and techniques fit for learning outcomes of the disciplines will be applied and innovative teaching methods and approaches in the new student-centred

learning environment will be introduced. In general, these courses enable enhancing the quality and relevance of learning and teaching at the university.

4 Conclusion

The introduction of student-centred teaching and learning principles requires a transformation of educational institutions in terms of offering more personalised learning with flexible content suitable for different students and student groups. The challenge is to convince all teaching staff to constantly improve teaching methods and approaches and to significantly focus on student learning. This requires addressing a whole range of strategic structural, formal and didactic issues:

1. The high priority of teaching and learning and focus on quality are the integral parts of the university mission and vision, as well as its strategy;
2. The university leadership promotes and contributes to the teaching and learning enhancement;
3. Teaching and learning are seen as a collaborative and inclusive process involving cooperation of different stakeholders within and beyond the university;
4. The teaching and learning enhancement requires sustainable resources and effective structures to support the transformation process.

In terms of management, the teaching and learning enhancement is a process, under which the university leadership plays an important role, i.e. facilitates and sustains the educational activity. In this regard, the development of a university teaching and learning strategy comes to the fore. The strategy should include the following elements:

- policy on academic staff development;
- opportunities for international cooperation;
- measures to enhance teaching and learning;
- procedures for developing, approving and evaluating degree programmes and their components;
- student support services;
- formation of the learning environment;
- modern educational technologies;
- opportunities for lifelong learning;
- quantitative indicators for measuring strategy / policy goals;
- operational plans for implementing strategy / policy.

Thus, the further step of PSU is to work out the teaching and learning strategy in the course of introducing innovations into the teaching and learning process through continuing staff development, teaching competency improvement, and academic support. Therefore, the existing centres for teaching and learning / centres for professional development of teaching staff are essential for the successful implementation of strategies.

In general, this confirms the importance of cooperation in the field of teaching and learning, as well as the added value that European and international partners can bring to institutional and national teaching and learning strategies. New ideas generated within the ENTEP project, its outcomes and outputs encourage PSU initiatives on learning and teaching enhancement, support professional development of academic staff with teaching responsibilities, facilitates teaching excellence in higher education.

References

1. A.A. Artemiev, M.G. Vinogradova, Challenges in training higher education specialists. Fundamental Studies. Fundamental Studies (Moscow, 2006)

2. O.A. Timofeeva, O.G. Maximova, Problem of training scientific and teaching staff for universities in conditions of modernization of education. Bulletin of I.Ya. Yakovlev Chuvash State Pedagogical University, 1 (77) (Cheboksary, 2013)
3. Authoring team, *ENTEP Analytical Report* (2018), URL: https://entep-tudresden.de/dokument/Analytical_report_1551362092_5789.pdf
4. Authoring team, *ENTEP Didactic Manual* (2019), URL: https://entep-tudresden.de/dokument/ENTEP_Manual_EN_1575962816_6352.pdf
5. Authoring team, *ENTEP Guide* (2019), URL: https://entep-tudresden.de/dokument/ENTEP_Guide_EN_1575962910_6353.pdf
6. European Commission/EACEA/Eurydice, *The European Higher Education Area in 2018: Bologna Process Implementation Report* (Luxembourg, 2018)
7. European Students' Union, *Overview on student-centred learning in higher education in Europe: Research study* (Brussels, 2015)
8. T.A. Markina, T.A. Razuvaeva, S.M. Vasin, Features of the system of training and re-training of high school teachers in Germany. Kazan Pedagogical Journal, 5 (Kazan, 2018)

Experience of Enhancing Cross-Border Collaboration in professional training of industry personnel

Oksana Filatova^{1,2,*}, *Maksim Gordeev*², *Larisa Gorbunova*³, *Irina Nagaeva*⁴, *Olga Mishunenkova*⁵

¹National Research Nuclear University MEPhI Obninsk Institute for Nuclear Power Engineering, Studgorodok str., 1, Obninsk, Kaluga region, 249040, Obninsk, Russian Federation

²Rosatom Technical Academy, Kurchatov str., 21, Obninsk, Kaluga region, 249031, Russian Federation

³Moscow Institute of Economics, Artyukhina str., 6/1, Moscow, 107140, Russian Federation

⁴Moscow International University, Leningradsky Prospect, 17, Moscow, 125040, Russian Federation

⁵Lomonosov Moscow State University, GSP-1, Leninskie Gory, Moscow, 119991, Russian Federation

Abstract. The article considers the problem of the fourth industrial revolution influence on changing the forms and educational technologies of personnel professional training of industry personnel and justifies the importance of cooperation between educational organizations of different countries in coordinating professional training programs. The authors explain the importance of harmonization and coordination processes of the Bologna project by the factors of the objective pattern of changing the technological paradigm and the formation of technoscience, diversifying educational technologies, which is actualized by the growing need for new generation specialists. The article emphasizes the importance of international cooperation and international interdisciplinary interaction in the development of forms and technologies of professional training in the logic (The Project of the Digital Competition of EU). On the example of educational projects of Russia and China in nuclear energy, the authors show the mutual influence of factors for the development of professional education in different countries. The article analyzes promising areas of professional training, based on the experience of mutual cooperation and the practice of diversifying programs in Russia and China, including the development of nuclear medicine, wind energy, ASU SMART- cities, the creation of digital products and environmental projects. The methodology of the article is based on research in the field of professional education in the context of informatization and the strategy of digitalization of production technologies, noting the special importance of engineering training in China.

*Corresponding author: OLFilatova@rosatomtech.ru

1 Introduction

The dynamic pace of the digital transformation of the economy at the stage of the sixth long wave and the change of the technological paradigm revealed the phenomenon of technoscience, the essential features of which are manifested in the integration and convergence of technologies and the complexity of multidimensional self-developing systems. The formation of a new technological structure outlined the problem of changing the organization of professional training of the corps of engineers, economists, technical specialists for high-tech industries. The human resources potential of international cooperation and integration in the interdisciplinary international interaction of mastering new forms and technologies of professional training and personnel development is of particular importance in the development of energy technologies. The search for educational technologies is unfolding, on the one hand, against the background of the processes of diversification of professional training programs, on the other hand, in the objective need to harmonize the requirements for professional education of specialists, which is also understood in Russia and abroad.

The guidelines for the harmonization of higher education systems in Europe, which Russia joined in 2003 to, were formulated by the Bologna project, in the focus of which a general conceptual field of non-linear dependencies of education on cultural, social and economic factors was formed. The basic principles of the Magna Charta Universitarum proclaimed the right of universities to autonomy, attention to research practice, guarantees of freedom of education and research, and intercommunication of cultures. Achievements of Bologna Process are obvious from different sides, in establishment of close ties between higher education institutions, in the statement of a paradigm of "education through the life", the international openness of the European education, intercountry mobility of students.

Leading universities of Russia, MVTU named after N.E. Bauman, NRNU "MEPhI," Moscow International University, Moscow State University named after M.V. Lomonosov, expand the areas of interaction and cooperation in the implementation of educational projects in international markets. The guidelines for the harmonization of higher education systems in Europe, which Russia joined in 2003 to, were formulated by the Bologna project, in the focus of which a general conceptual field of non-linear dependencies of education on cultural, social and economic factors was formed. The basic principles of the Magna Charta Universitarum proclaimed the right of universities to autonomy, attention to research practice, guarantees of freedom of education and research, and intercommunication of cultures. Achievements of Bologna Process are obvious from different sides, in establishment of close ties between higher education institutions, in the statement of a paradigm of "education through the life", the international openness of the European education, intercountry mobility of students.

Leading universities of Russia, MVTU named after N.E. Bauman, NRNU "MEPhI," Moscow International University, Moscow State University named after M.V. Lomonosov, expand the areas of interaction and cooperation in the implementation of educational projects in international markets. A striking example, the coordination of training programs for engineering and technical personnel, the development of their qualifications, as well as the creation of training centers, the training of foreign students in higher educational institutions of the nuclear energy profile to obtain appropriate qualifications and postgraduate education for subsequent work at nuclear power plants in China.

2 Materials & Discussion

Developing the ideas of the Bologna project, Russia and China are working on the development and implementation of joint programs, the development of academic mobility, as well as on the scientific, technological and innovative direction of cooperation. Participants of the Project 5-100 were People's Friendship University of Russia, SPbPU, FEFU, TSU and other universities. From the Chinese side about 600 educational institutions, including Peking polytechnic University, Tsinghua University, South Chinese technological university, Northeast pedagogical university, Tszzyansusky pedagogical university, etc. More than 900 direct agreements have been concluded, specialized associations of Russian and Chinese universities have been created [1].

Since the accession of Russia to the Bologna Declaration, a discussion has unfolded in the scientific and pedagogical community about the advantages, shortcomings, principles and prospects for achieving the goals of the Bologna project. The periodical "Higher Education in Russia" identifies three points of view: an exaggerated assessment of overstated expectations from the heyday of higher education; the expressed fear of Bologna values; a pragmatic position that prevailed, recognizing the fact that "closer integration of the educational systems of the Russian Federation and Europe will strengthen the effect of" mutual pollination... "in the search for higher education of the future" [2]. A number of experts believe that "the Bologna process today does not take root in Russia," due to the differences in the European system of requirements for students, and, as a result, the need for a complete change in the fundamentals of the system "[3].

Scientists of the Kazan (Volga) Federal University sharpen a negative assessment of the Bologna transformations: "Based on an analysis of the structure of the Bologna process, one can conclude that the system is incapacitated in practice in countries outside the European Union" [4]. Meanwhile, the dynamics of the internationalization of Russian higher education is obvious, although it should be recognized that the target of "ensuring the presence of the Russian Federation among the ten leading countries in the world in terms of research and development, including through the creation of an effective higher education system," the goal remains significant until 2030 [5].

Among the positive changes of higher education in the Russian Federation it should be noticed the transition to a two-level European system of education, student mobility, new approaches to assessing qualifications, guidelines for digital maturity of professional competence, the use of digital high technologies in higher education in all possible areas and forms. International cooperation and the inclusion of Russian universities in European scientific and educational projects contributed to the development of professional education, stimulated the democratization of management, initiative and the development of innovative educational technologies.

According to 2019 data, over 7 years, the number of Chinese students in Russian universities has increased almost 2 times, amounting to 30 thousand people. Educational institutions in which citizens of the PRC study are located in 85 cities of Russia, although preference is given to Moscow, St. Petersburg and Far Eastern universities and full-time education. Russia seeks to ensure the global competitiveness of Russian education by implementing the strategic objectives of the national project "Education," as well as the Project 5-100 and improving the international competitiveness of Russian higher education. The main specialties are of the social and humanitarian field, the Russian language, linguistics and literary studies, economics and management, a number of engineering and technical specialties, mechanical engineering, energy, the demand for which has grown in recent years.

NRNU "MEPhI" has developed a number of English-language programs and more than 20 unique copyright training courses, including for the Institute of Intelligent Cybernetic Systems, the bachelor's program of Protected Computational Systems & Software Development in the field of computer science and computing. Cooperation and

the development of scientific and educational cooperation between NRNU “MEPhI” and Tsinghua University, one of the best universities in China, can be evaluated productively. The university takes 17th place in the ranking of the best educational institutions in the QS World University Rankings 2019, as well as 10th place in the QS World University Rankings by Subject 2018 in the discipline of "engineering and technology" [6].

Foreign students received the opportunity of practical training at the Resource Center of the NRNU “MEPhI” in the city of Donbass. The decision to create the Resource Center (RC) of NRNU “MEPhI” on the basis of the Donbass Engineering and Technical Institute of NRNU “MEPhI” was made for practical-oriented training of foreign students in the conditions of knowledge-intensive and high-tech production of the nuclear industry. With the support of ROSATOM State Corporation in Donbass, hundreds of foreign students from Moscow and Obninsk have already been able to improve their practical skills [7].

The digital transformation of the economy and social sphere in Russia has objectified the pattern of professional training diversification. Professional training of engineers for enterprises of the energy complex in Russia is carried out in various areas, automation of technological processes, IT systems, 3-D printing, big data, cybersecurity of the nuclear industry, reengineering, additive technologies, design modeling. This approach attracted the attention of Chinese specialists to the Russian experience, although in general in engineering education Chinese universities are oriented towards Western standards.

Nuclear power is a priority in China's economy. According to statistics, at the beginning of 2020, 48 power reactors operate in China, 10 more are being built, and the share of nuclear energy in the total energy balance is 4.2% [8]. The diversification of nuclear power is also evident in China. Nuclear medicine is actively developing. The publication has formulated the foundations of the system of supervision over nuclear safety of the PRC. Environmental projects are widely welcomed. At the same time, technological innovations are associated with optimizing the professional training of Chinese specialists. Premier of the State Council of China Wen Jiabao, has stressed that the "Rise of China" is ensured through the training of specialists and the development of education.

The scientific press emphasizes that for the industrialization of China, an acute problem is the training of engineering personnel, which is being reformed in the logic of European standards. «Then, engineering education is facing a great challenge» [9]. China has outlined an initiative ‘New Engineering Education’ (NEE) to reform its engineering education at university level. Despite the China’s intention to keep such unique features of its own, «in terms of engineering education, China does value international standards (represented by Western standards) » [10]. China follows the education system of Western standards in engineering education. «It should update its engineering curricula and pedagogy from theoretical knowledge to practice-oriented and outcome based... The engineering concepts, building innovations, and development outlines are weak [11]. A transition from a model centered upon teaching to a model centered upon student learning, allowing students to become aware of knowledge, procedures and values for problem-solving through metacognitive capacities that permit them to reflect consciously on, plan, supervise, regulate and evaluate strategies involved in learning [12].

3 Results

The system of professional education for the nuclear industry in Russia is built according to three vectors: management, expert and project. The management vector is the development of managers capable of fulfilling the strategic goals of Rosatom; the expert and project vectors are the improvement of employees’ professional skills in the field of their specialization or in the field of special interests of the State Corporation. The project of diversification of professional training programs in the system of retraining and advanced

training of personnel of the Rosatom Technical Academy includes this complex of organizational and pedagogical means and methods of updating digital resources in the educational process, value and sense tuning of information perception, development of critical thinking and communication skills.

The outline of the professional training diversification project defines significant reversal points for the development of multi-module programs:

- development of individual professional trajectories - readiness for self-education throughout life;
- importance of productive activity in realities of the digital environment, development of "useful knowledge";
- creative thinking and high adaptation of behavior in self-developing structures with mastery of remote access practices;
- priority of social qualities, values, beliefs, emotional intelligence in the cross-cultural space of the digital environment;
- technological competence and professional excellence in non-linear and flexible production technologies to prevent "half-life of competence";
- communicative competence of intercultural interaction.

In the logic of Bologna materials, the requirements of employers and standards of professional qualifications in the development of a single educational space issued a request for an understanding of digital competencies. Russian universities in the development of competencies correlate educational programs with a list of 21 competencies that the European Commission determined for Europe citizens, suggested The Joint Research Centre (JRC) the Digital Competition Framework 2.0 [13]. Such "general competences" are an influence on the development of such skills as: analytical thinking (GC-1), communication skills and writing skills (GC-2), and organizational skills (GC-3) in practice in Russia. The requirements for the results of the implementation of the GEF 3 + + Educational Program have included them in the form: universal, professional and professional. However, digital competencies, like cross-cutting universality for all types of activities, have not become apparent, as in the practice of the EU countries.

In 2019 a training program for 33 specialists of the Tianwan NPP was opened on the basis of the Rosatom Technical Academy, in Obninsk (Kaluga Region). The operator was the Jiangsu Nuclear Power Corporation, JNPC (China). The project for training Chinese nuclear energy specialists along with the Rosatom Technical Academy was developed by Rosenergoatom Concern and Rusatom Service JSC. The program provided for three main stages: theoretical classes at the Obninsk site, practice at the training center in the branches of St. Petersburg and Sosnovy Bor, practical classes at the Leningrad NPP. The main participants in the design and construction of nuclear power plants with VVER-1200 for the People's Republic of China are concentrated in the North-West region.

The results of the training program were presented by the formed competencies of specialists at a practical exam with a demonstration of the basic competencies for the operation of a power unit with a VVER-1200 reactor, legal aspects in the field of peaceful use of nuclear energy.

Chinese participants in training programs note: "To improve technical competencies, we need to cooperate more deeply, openly and mutually beneficial with Russia... we were able to better understand the culture of the Russian people and improve the Russian language. " The importance of cross-cultural factor and bilingual training is also indicated by Russian specialists working on projects in China. Experienced specialists with education in the field of economics, technology, business speak Chinese.

The communicative aspect received special attention in professional training in Russia. Syuy Syutszyuan, Senior Lecturer of Jilin Huaqiao Foreign Languages Institute,

Changchun, China, comments, «Teaching a foreign language plays the decisive role in teaching any discipline in China. That is why researchers and specialists keep discussing foreign language teaching methods mostly suitable for China. Learning Russian is an inseparable part of foreign language study in China. There are many methods of its teaching: from the audio-visual method and the initial translation method up to the method of conscious comparison and the cognitive method”. Teachers of “MEPhI”, the basic educational institution of higher professional education in nuclear energy, pay special attention to phonetic exercises (Ushakova Yu.Yu.). Language Teachers of the Faculty of Economics of Lomonosov Moscow State University analyze the possibility of Program Product “My English Lab” use (Mishunenkova O.V.).

The signing of the strategic package of documents determines the main directions for the development of cooperation between Russia and China in the field of nuclear energy for the coming decades, and also allows us to see the prospects for the exchange of vocational education programs.

4 Conclusion

The development of professional training programs for nuclear energy and alternative directions of nuclear development within the framework of Russian-Chinese cooperation reflect the objective nature of the principles of the Bologna process in the development of the ideas for broad cooperation between universities, student mobility, research and development. The logic of the development of the Bologna process does not provide for the simultaneous and straightforward achievement of the goals of harmonization of education. The practice of cooperation between universities, including in the nuclear power industry, shows the mutual intellectual enrichment of program participants, cross-cultural understanding, and the formation of a single conceptual space for education.

Among the most notable areas useful, both for Russia and China, it should be noted:

- “Smart City” project - coordination of innovations and advanced technologies of Rosatom organizations for effective urban management, improving the quality of citizens life, creating a comfortable and safe urban environment, modernizing the infrastructure of life support for cities: heat, electricity, water supply based on modern engineering and digital solutions; (by 2021 city Obninsk will be in the project pool);

- “Rosatom School” project - achieving a "supernew" goal by 2025: the formation of an innovative highly effective cluster in the field of general and additional quality education (city Obninsk has entered the pool of project participants);

- projects for the development of the Arctic and its resource development, environmental safety, study and preservation of unique natural ecosystems within the framework of the national project "Ecology";

- development of equipment and radionuclide products production for nuclear medicine and medical radiology, as well as industrial equipment based on radiation technologies (development and creation of commercial processing centers for products based on gamma-ray installations and electron accelerators); the construction of nuclear medicine centers, including Obninsk zone;

- development of PAN precursor and carbon fiber technologies; advantages of carbon composites - lightness, strength, high performance. It shows one of the highest growth rates, which increases with the development of products, technologies for working with composites and a multiple reduction in price;

- development in the industry employees, the so-called softskills - non-specialized skills that make it possible to be successful in the profession: ability to work in a team, responsibility, emotional intelligence, critical thinking, time management.

Thus, the strategic guidelines of the Bologna project had a positive impact on the development of higher education in Russia. In the practice of educational institutions for professional training of personnel for nuclear energy, which has an extensive structure of educational institutions, Bologna values show themselves in expanding cooperation with Chinese universities and educational centers on various aspects of professional education, the development of curricula, educational technologies, research projects.

References

1. Chinese citizens study in Russia: <https://www.5top100.ru/news/104492> (2019)
2. V.I.Baidenko, Bologna Process: At the Threshold of the Third Decade//Higher Education in Russia. 27. 11. 136 (2018) (In Russ.) DOI: <https://doi.org/10.31992/0869-3617-2018-27-11-136-148>
3. E.S.Khovanskaya, A.V.Fakhrudinova, N.V.Maklakova, University as a social phenome-non. *Man in India*. 97. 9. 101 (2017)
4. A.S.Chugunov, A.M.Ilsova, The Bologna process as a way to integrate higher education in Europe & the Russian Federation, *Kazan Bulletin of Young Scientists*, 2. 125, (2019)
5. Decree of the President of the Russian Federation “*On the national development goals of the Russian Federation for the period up to 2030*”, dated July 21, 2020 No. 474, available at: <https://base.garant.ru/74404210/> (accessed 15.12.2020).
6. News from *NRNU MEPhI*: <https://mephi.ru/content/news/1810/130851>
7. News from *NRNU MEPhI*: <https://mephi.ru/content/news/1387/126179>
8. *Atomic Expert, corporative journal*, 1-2, (2020), URL: <http://atomicexpert.com/>
9. Xisong Dong Xiwei Liu, A Review of Engineering Education in China: History, Present and Future. *Conference Paper* (2017) ASEE International Forum: <https://www.researchgate.net/publication/317012064>
10. Tengteng Zhuang and Xiaoshu Xu, New Engineering Education’ in Chinese Higher Education: Prospects and challenges. *Tuning Journal for Higher Education (TJHE)*, 6. 1 (2018) doi: [http://dx.doi.org/10.18543/tjhe-6\(1\)-2018pp69-109](http://dx.doi.org/10.18543/tjhe-6(1)-2018pp69-109)
11. Abdul Sami Channa, Farrukh Raza Amin, Guangqing Liu & Chang Chen, The Engineering Education in China, Compared to Pakistan, Europe, and the USA, in Prospects of One Belt, One Road. *Higher Education Studies*. 8. 3 (2018) URL: <https://doi.org/10.5539/hes.v8n3p15>
12. Ana María Graffigna Vaggione, Lucía Mabel Ghilardi, and María Amelin Dávila Zarracán, Analysis of curriculum processes for the development of competencies in engineering education. *Tuning Journal for Higher Education (TJHE)*. 7. 2. 25 (2020): [http://dx.doi.org/10.18543/tjhe-7\(2\)-2020pp25-42](http://dx.doi.org/10.18543/tjhe-7(2)-2020pp25-42)
13. R. Vuorikari, Y. Punie, Gomez S. Carretero, G.Van den Brande. DigComp 2.0: The digital competence framework for citizens. Update phase 1: The conceptual reference model. Luxembourg: Luxembourg Publication Office. (2016)

Financing the development of the regional vocational training system: qualitative changes

Elena Dvoryadkina, Elena Efimova, Dina Prostova

Ural State University of Economics, 62/45 8 Marta/Narodnoy Voli St., Ekaterinburg, 620144, Russia

Abstract. Innovative development of the national economy is Russia's main strategic aim in a globally competitive environment. In general, innovation processes should start with transformations within regions, as it is the regions in Russia that form the basis of the national economic system. The purpose of this paper is to identify prospective directions for qualitative changes in the development of the regional vocational education system, which is the object of the study. The authors focus on the financing of regional vocational education system development, since this system is considered one of the most important factors of economic competitiveness, national security, and at the same time, vocational training is the basis for human capital accumulation and development. Regional programs, which are one of the instruments for financing education systems at regional level, are analyzed.

1 Introduction

The effective functioning of the national economy in today's environment requires a transition to an innovative path of development. The strategy of innovative modernization of the Russian economy puts the development of the vocational education system in the country's regions at the forefront. Education is among the most important factors of national security and serves as the basis for the accumulation and development of human capital in the emerging post-industrial society. In general, the regional vocational education system acts as a factor of regional economic development and competitiveness [1] and it is a component of the regional socio-economic system.

The functioning of vocational education systems at the regional level is considered in the works of A.A. Tonzherakova [2], G.N. Lishchina [3], D.G. Setalov [4], V.V. Miroshnichenko. 5], Dmitriev N.A. and Konstantinova L.A. [6], Lapushinskaya G.K. [7]. Summarizing the definitions of the concept of regional system of professional education, presented in the works of the abovementioned scientists, we formulate the author's definition: regional system of professional education is a set of educational organizations, implementing programs of basic and additional professional education and vocational training, functioning in the socio-economic space of the region and territorially localized in municipalities, whose activities are aimed at forms [8].

2 Legal and regulatory methods in the development of the regional vocational education system and its financing

At present, Russia has developed legislative documents at the federal level containing guidelines for the development of the vocational education sector:

- State Program of the Russian Federation “Development of Education” [9];
- Federal Law of 29.12.2012 No. 273-FZ “On Education in the Russian Federation”;
- Presidential decrees of May 7, 2012, No. 597 On measures to implement state social policy and No. 599 On measures to implement state policy in education and science;
- Strategy for the Development of the System of Training of Workers and the Formation of Applied Qualifications in the Russian Federation for the period until 2020 [10];
- A set of measures aimed at improving the vocational training system for 2015-2020 [11];
- National Security Strategy of the Russian Federation [12].

An important document defining the main directions for modernizing the education system is the state program of the Russian Federation “Development of Education”. The new program (until 2025) identifies three most important strategic orientations for this period: 1) quality of education; 2) accessibility of education; and 3) online education.

These guidelines continue the main goal of the previous state program until 2020: “creating conditions for effective development of Russian education...”, where attention was paid to “creating infrastructure that ensures conditions for training personnel for modern economy, formation of in-demand system of education quality assessment and educational results” [13].

The new State Program “Development of Education” until 2025 contains important directions for modernizing the education system, including the sub-program “Implementing educational programs for vocational training” with a set of projects aimed at creating a modern digital educational environment, training highly qualified specialists and workers in demand in the new economic conditions, and developing universities as innovation centers and sites for cooperation with industrial enterprises. The training of highly qualified specialists, including scientific personnel, for the development of a knowledge-based, digital economy is a priority [14], where the training system is one of the priority national interests (science, technology and education) in ensuring national security [15, 16].

As part of government policy on the development of vocational education, the Strategy for the development of the system of training workers and the formation of applied qualifications in the Russian Federation until 2020 was developed, where specific targets and indicators were formulated, which aimed at increasing the proportion of graduates of vocational educational organizations who were employed in their specialty; increasing the share of coverage of the population with programs of additional vocational education and vocational training / retraining; an increase in the share of constituent entities of the Russian Federation participating in the WorldSkills Russia movement and etc.

The development of the education system, including vocational training, is reflected in the Strategy for Innovative Development of the Russian Federation for the period until 2020 [17], where the innovative way of development of the state economy is impossible without modernization of education and science, and innovation is one of the strategic guidelines of state policy.

For the period 2021-2030 it is envisaged to implement the program of strategic academic leadership (Priority 2030 program) aimed at supporting the development programs of educational institutions of higher education. The instrument for the implementation of this program will be grants in the form of subsidies to support this development program, including those implemented jointly with scientific organizations and providing personnel training for priority directions of scientific and technological development of the Russian Federation [18].

3 Analysis of budget financing in the development of the education system, using the Sverdlovsk region as an example

Let us describe the budget financing of the Sverdlovsk region's education system using the example of the regional budget (Table 1).

Table 1. Education expenses in the structure of regional budget expenditures in Sverdlovsk Region in 2016-2020, RUB thousand*

Indicators	Budget 2016	Budget 2017	Budget 2018	Budget 2019	Budget 2020
Budget expenditure, total	190941821,2	199414792,4	225253602,6	257378074,2	296594051,9
Expenditure under "Education"	51247253,2	53259994,4	57861614,4	66544292,8	75858172,5
Specific weight, %	26,8	26,7	25,7	25,9	25,6
Including:					
Pre-school education	15349489,9	15796261,9	16160380,4	18886282,6	20512411,7
Specific weight, %	8,0	7,9	7,2	7,3	6,9
General education	27965569,5	28449041,9	31532843,2	35380888,1	40219805,6
Specific weight, %	14,7	14,3	14,0	13,8	13,6
Additional education for children		767733,5	732432,7	1576034,8	2409446,9
Specific weight, %		0,4	0,3	0,6	0,8
Secondary vocational training	5735064,2	5729065,7	6415924,2	7562898,1	7649139,4
Specific weight, %	3,0	2,8	2,8	2,9	2,6
Vocational training, retraining and further training	120095,0	94671,2	141336,4	156159,9	318295,2
Specific weight, %	0,1	0,1	0,1	0,1	0,1
Youth policy	1226788,9	1471687,6	1535706,3	1947379,2	2004135,5
Specific weight, %	0,6	0,7	0,7	0,8	0,7
Other educational issues	850245,7	951532,6	1342991,2	1034650,1	2744938,2
Specific weight, %	0,4	0,5	0,6	0,4	0,9

A share of expenditures on the section "Education" in the total volume of regional budget expenditures is quite significant, accounting for nearly a third, but declining from 26.8% to 25.6% over the period 2016-2020, with expenditures on pre-school education (by 1.1 percentage point), general education (by 1.1 percentage point) and secondary vocational education (by 0.4 percentage point) falling in terms of specific spending areas.

As the subject of the study is the vocational education system in the region, special attention will be paid to the analysis of budget financing of secondary vocational education and training, retraining and advanced training.

* Table compiled from: On the regional budget for 2020 and planning period 2021-2022: Sverdlovsk Oblast Law of 12.12.2019 No. 120-OZ; On the regional budget for 2019 and planning period 2020-2021: Sverdlovsk Oblast Law of 06.12.2018. No. 144-OZ; On the regional budget for 2018 and the planning period 2019-2020: Law of Sverdlovsk region of 07.12.2017 No. 121-OZ; On the regional budget for 2017 and the planning period 2018-2019: Law of Sverdlovsk region of 19.12.2016 No. 131-OZ; On the regional budget for 2016: Law of Sverdlovsk region of 03.12.2015 No. 138-OZ.

The structure of the network of educational organizations of professional education in Sverdlovsk region in 2019 was represented by professional educational organizations and educational organizations of higher education. According to the Ministry of Education of the Russian Federation (according to the form of federal statistical observation No. SPO-1), at the beginning of the 2019/2020 academic year the network of professional educational organizations in Sverdlovsk Oblast was represented by 129 educational organizations training mid-level specialists [19]. The text of the state programme "Development of the Education System and Implementation of Youth Policy in the Sverdlovsk Region until 2025" formulates qualitative changes in the system of secondary vocational education in the Sverdlovsk Region. They include:

- 1) Sverdlovsk region in the top five of the WorldSkills movement;
- 2) an increase in the total number of students in secondary vocational education programs and demonstrating a level of training that meets WorldSkills standards by 9.4 thousand people;
- 3) positive dynamics of the average score on the school leaving certificate when applying to technical professions in secondary vocational training organizations;
- 4) the new type of state final examination, the WorldSkills demonstration examination, is being piloted;
- 5) creating conditions in the Sverdlovsk Region to train qualified personnel in the most in-demand, new and promising professions and specialties (TOP-50).

It is also noted that the system of secondary vocational training in the Sverdlovsk region is one of the most dynamically developing educational systems in the Russian Federation.

The bodies of State power of the constituent entities of the Russian Federation ensure State guarantees of the right to receive accessible and free secondary vocational education by granting subsidies to vocational educational organizations and educational organizations of higher education under the jurisdiction of the constituent entities of the Russian Federation for financially supporting the performance of the State task or by granting subsidies to private educational organizations to cover the costs of their implementation of programs of secondary vocational training. [20].

It is worth agreeing with the conclusions of other researchers that expenditure on vocational education and training has been increasing in recent years due to the active implementation of government projects and programs to improve the quality and competitiveness of Russian education. The amount of budget funding for the educational services of secondary vocational training institutions is closely linked to the current method of funding: as the number of students decreases, so does the amount of funding [21].

The composition of regional budget expenditure for financing secondary vocational education, vocational training, retraining and professional development in Sverdlovsk Oblast is shown in Table 2.

Table 2. Regional budget expenditures on secondary vocational education, vocational training, retraining and professional development in Sverdlovsk Region in 2016-2020, RUB thousand†

Indicators	Budget 2016	Budget 2017	Budget 2018	Budget 2019	Budget 2020
Secondary vocational training	5735064,2	5729065,7	6415924,2	7562898,1	7649139,4

† Table compiled from: On the regional budget for 2020 and planning period 2021-2022: Sverdlovsk Oblast Law of 12.12.2019 No. 120-OZ; On the regional budget for 2019 and planning period 2020-2021: Sverdlovsk Oblast Law of 06.12.2018. No. 144-OZ; On the regional budget for 2018 and planning period 2019-2020: Sverdlovsk Oblast Law of 07.12.2017 No. 121-OZ; On the regional budget for 2017 and planning period 2018-2019: Sverdlovsk Oblast Law of 19.12.2016 No. 131-OZ; On the regional budget for 2016: Sverdlovsk Oblast Law of 03.12.2015 No. 138-OZ.

Continuation of Table 2

Vocational training, retraining and advanced training	120095,0	94671,2	141336,4	156159,9	318295,2
---	----------	---------	----------	----------	----------

The functional classification of budget expenditures implies their presentation in terms of state programs implemented in the constituent entity of the Russian Federation. The largest spending state program in this area is the Sverdlovsk Region state program “Development of the Education System and Implementation of Youth Policy in the Sverdlovsk Oblast until 2025”, which includes several subprograms.

The subprogram “Quality of Education as a Basis for Well-being” has the largest share in the structure of subprogram funding: in 2017, 91.4% - 91.4%, in 2018 - 89.5%, 86.8% in 2019, and 86.8% in 2020 – 85.0%. The purpose of this subprogram is to ensure the availability of quality education that meets the requirements of innovative socio-economic development of the Sverdlovsk region.

The subprogram “Pedagogical Staff of the 21st Century” has the following indicators of the share in the structure of financing of the Sverdlovsk Oblast state program “Development of the Education System and Implementation of the Youth Policy in the Sverdlovsk Region until 2025”: in 2017, - 8.6% in 2017, 8.0% in 2019, and 8.1% in 2020 – 8.1%. This subprogram is aimed at renewing the system for developing teaching staff and raising the prestige of the teaching profession. The bulk of spending on financing the subprogram “Pedagogical Staff of the 21st Century” in 2017-2020 is allocated to the organization of secondary vocational education in state vocational educational institutions implementing teacher education programs.

The Sverdlovsk Region is an industrial region where the Urals Engineering School project is being implemented, which aims to provide conditions for training workers and engineers on a scale and with a quality that meets the current and future needs of its economy, taking into account programs to develop the industrial sector, ensure import substitution and return domestic enterprises to technological leadership. 66% of technical schools and colleges in the Sverdlovsk region are involved in the implementation of the Urals Engineering School project. The amount of spending on the implementation of the Urals Engineering School project specifically for secondary vocational education is increasing annually: in the budget for 2018 - 90.2 million rubles, for 2019 - 317.5 million rubles, for 2020 - 385.0 million rubles. Expenditure is made in the form of subsidies to vocational training organizations participating in the implementation of this project, for the organization of activities to develop the material and technical base, for the development and distribution in the secondary vocational education system of new educational technologies and forms of advanced vocational training (including co-financing from the federal budget).

The regional budget is used to finance state programs such as “The Development of Healthcare in the Sverdlovsk Region until 2024” [22], “Development of Culture in the Sverdlovsk Region until 2024” [23], “Development of Physical Culture and Sports in the Sverdlovsk Region until 2024” [24], “Social Support and Social Services in the Sverdlovsk Region until 2024” [25].

There are over 100 educational organizations in the Sverdlovsk Region's system of supplementary vocational training, professional retraining and internships, including: organizations of supplementary vocational education within universities (institutes, departments, continuing education centers); organizations implementing supplementary adult education programs (centers, associations); organizations whose licenses provide for the implementation of supplementary education programs in the region. The largest state program in terms of funding in this area of expenditure is the Sverdlovsk Region state program “Development of the Education System and Implementation of Youth Policy in

the Sverdlovsk Oblast until 2025”, which provides funding for the provision of additional professional education in state educational organizations, as well as the development of content, forms, methods of improving the personnel potential of teachers and specialists in the study of the Russian language (as native, as non-native, as foreign language), development of the personnel potential of teachers in the study of the Russian language, improving the quality of education in schools with low learning outcomes and in schools operating in disadvantaged social conditions, through the implementation of regional projects and dissemination of their results.

It should also be noted that throughout the period under review there has been financing of professional training, retraining and advanced training of public civil servants of the Sverdlovsk Region, municipal servants and persons holding municipal offices. These expenditures are consolidated under the Sverdlovsk Region state program “Development of Personnel Policy in the System of State and Municipal Administration of the Sverdlovsk Oblast until 2024” [26].

The Sverdlovsk Region has approved an Education Development Strategy until 2035 [27], which aims to ensure high quality and accessibility of education that meets social and public, personal educational needs and provides the Sverdlovsk Region economy with qualified human resources.

4 Conclusions

Prospective directions for the development of vocational education and training, which will be based on the strategic objectives set, are as follows:

- increasing the level of professional training of pedagogical staff and heads of additional and professional education;
- development and introduction of new systems of incentives and motivation for teaching staff;
- modernization and creation of material and technical basis for the implementation of educational programs in the field of additional and professional education
- creation of a modern and safe digital educational environment;
- ensuring equality in the provision of educational services;
- development of processes (or conditions) of individualization of education (implementation of secondary vocational education programs based on individual curricula)
- creation of a balanced system of evaluation procedures at all levels of education based on Russian and international standards;
- ensuring a sustainable relationship between the current needs and labor market development forecasts of the Sverdlovsk region in competencies and qualifications of working-age citizens with the system of vocational education and training;
- creating conditions for people aged 25 to 65 to adapt to changes in the labor market.

The mechanisms for the implementation of the strategy are the implementation of activities and the achievement of the targets of state programmes and projects, which entail appropriate financial support.

References

1. E. V. Bolgova, M. V. Kurnikova Modeling the spatial organization of the higher education system in the regional economy. *Contributions to Economics*. 43 (2019)
2. A.A. Tonzherakova Formation of the program for the development of the regional system of professional education as a tool for implementing socio-economic strategy: dissertation kand. ekonom. sci. Barnaul. 13 (2014)

3. G.N. Lishchina, Realization of Integrity Mechanism in the Regional System of Professional Education Development. *Kazan Pedagogical Journal*. 2. 101 (2015)
4. D.G. Setalov, Regional market of higher professional education services as a system. *Economics of Education*. 2. 9 (2007)
5. V.V. Miroshnichenko, General trends in the development of the regional education system. *Red.Rev.* **2** (2). 13 (2013)
6. N.A. Dmitriev, L.A. Konstantinova, Regional education system and management of its development on the basis of program-targeted model. *Proceedings of Tula State University. Humanities*. **4-2**. 65 (2014)
7. G.K. Lapushinskaya, Formation of the system for planning the development of territorial complex of professional education in the conditions of market transformation of the social sphere: dissertation Doctor of Economics: 08.00.05. Saint Petersburg. (2004)
8. E.B.Dvoryadkina, E.G. Efimova, Regional system of professional education: concept and essence (on the example of an industrial region). *Regional Economics and Management: electronic scientific journal*. 3(55). 13 (2018) I Internet access : <https://eee-region.ru/article/5513>
9. On Approval of the State Program of the Russian Federation "Development of Education" : Decree of the Government of the Russian Federation of 26.12.2017 No. 1642
10. Strategy for Development of the System of Workforce Training and Applied Qualifications Formation in the Russian Federation for the Period until 2020 (approved by the Collegium of the Ministry of Education and Science of Russia, Minutes No. PK-5vn dated 18.06.2013)
11. On approval of a set of measures aimed at improving the system of secondary vocational education for 2015-2020: Order of the Government of the Russian Federation of 03.03.2015, No. 349-r
12. On the National Security Strategy of the Russian Federation: Presidential Decree No. 683 of 31.12.2015.
13. 13. On the Federal Target Program of Education Development for 2016-2020: Russian Federation Government Decree No. 497 of 23 May 2015.
14. V.Curran, D. L. Gustafson, K. Simmons et al, Adult learners' perceptions of self-directed learning and digital technology usage in continuing professional education: An update for the digital age. *Journal of Adult and Continuing Education*. 25(1). 74 (2019)
15. E. B. Dvoriadkina, E. G. Efimova, Regional system of professional education in the information society. *Advances in Social Science, Education and Humanities Research*. **240** (2nd International Scientific Conference on New Industrialization: Global, National, Regional Dimension). 708 (2018)
16. A. R. M. de. Oliveira, C. M. Escott Professional education: Current policies targeting the qualification of vocational education in Brazil [Políticas públicas e o ensino profissional no Brasil]. *Ensaio*. 2015. **23(88)**. 717 (2015)
17. On Approval of the Strategy for Innovative Development of the Russian Federation until 2020: Decree of the Government of the Russian Federation No. 2227-r of 08.12.2011.
18. On Implementation of Strategic Academic Leadership Program "Priority-2030": Russian Federation Government Decree No. 3697-r of 31.12.2020
19. Main results of the Ministry of Education and Youth Policy of Sverdlovsk region in 2019 and tasks for 2020: Report of the Ministry of Education and Youth Policy of Sverdlovsk region. Ekaterinburg, 2020. Internet access:

<https://minobraz.egov66.ru/uploads/document/2023/doklad-osnovnye-itogi-deyatelnosti-ministerstva-v-2019-godu-i-zadachi-na-2020-god.pdf>

20. Methodological recommendations on providing financial and personnel conditions for the implementation of educational programs of secondary vocational education in accordance with the new model of the federal state educational standard for the 50 most demanded and promising professions and specialties: Letter of the Ministry of Education and Science of Russia from 27.02.2018 №06-341
21. A.A. Korableva, Problems of financing SPE institutions in the regions in modern conditions. *Vestnik of Samara State University of Economics*. 10(180). 49 (2019)
22. On Approval of the State Program of the Sverdlovsk Region "Development of Healthcare of the Sverdlovsk Region until 2024": Decree of the Government of the Sverdlovsk Region of 21.10.2013 No. 1267-PP.
23. On approval of the Sverdlovsk Region State Program "Development of Culture in the Sverdlovsk Region until 2024": Decree of the Sverdlovsk Region Government of 21.10.2013 No. 1268-PP
24. On approval of the Sverdlovsk Region State Program "Development of Physical Culture and Sports in the Sverdlovsk Region until 2024": Decree of the Sverdlovsk Region Government of 29.10.2013 No. 1332-PP
25. On Approval of the Sverdlovsk Region State Program "Social Support and Social Services to Population of the Sverdlovsk Region": Sverdlovsk Oblast Government Resolution No. 480-PP of 05.07.2017.
26. On approval of the Sverdlovsk Region State Program "Development of Personnel Policy in the Sverdlovsk Region State and Municipal Administration System until 2024": Sverdlovsk Region Government Resolution No. 1276-PP of 21.10.2013
27. On Approval of the Education Development Strategy in the Sverdlovsk Region for the Period up to 2035: Decree of the Sverdlovsk Region Government No. 588-PP dated 18.09.2019

Humanistic orientation of Russian higher education as a new vector of its development

Rimma Gilmeeva¹ and Luitsia Shibankova²

^{1,2} Institute of pedagogy, psychology and social problems, Isaeva Str., 12, 420039 Kazan, Russia

Abstract: The relevance of the problem is due to the fact that the system of education in the global educational environment turned to be dependable from the challenges of a dynamic socio-cultural reality. High-technological industry with the growing role of knowledge in all the spheres of life activity, and in the sphere of an intellectual labour implies reconsideration of higher school functions as valuable social institutions. The article reveals the potential of higher schools connected with regeneration of knowledge, and with an efficient development of professional-corporative identity of the personnel, interaction with stake-holders, and regeneration of the crisis of reliability in the educational organization. The problem of preserving humanitarian values of education in the process of training as an active subject of knowledge society continues to be principally essential. Therefore, there appeared the need to search for a relatively new socio-cultural model of the university, which will be able to preserve an idea of humanity and fundamentality of higher education. The authors' scientific positions will be of interest to the University-teachers, the researchers, the young scientists and the post-graduate students.

1 Introduction

Change of the status, role and prestige of higher education should be motivated by recognition that it performs systemic functions as the most important element of society's innovative capacity, training of high-qualified personnel, and is considered to be the base of a national information system. It is in the inter-relation with the international systems of receiving, storage and transfer of knowledge in the context of cultural diversity of the Russian society, which is currently under direct influence of a complex of the inter-connected factors at international, all-Russian and regional levels. The major factor, influencing *at the international level*, is the globalization which is characterized by the development of the information flow between the countries, formation of unified economic, information, cultural, and educational environment, possessing an ambiguous impact, in general, on culture and education. Integrating the countries in their cultural and educational activity, globalization promotes overcoming "psychology of rejection" and "psychology of misunderstanding", and suggests processes of mutual, cultural enrichment. Enlarging of the Russian-European partnership and international cooperation on the basis of Bologna Process, causes the need for the specialists-experts, capable to interaction with

¹ Corresponding author: rimma.prof@mail.ru

representatives of foreign, native speakers, possessing competences of cross-cultural communication. At the same time, globalization, to some extent, levels a cultural originality of the separate nations and leads to unification of an ethnocultural self-identification. *At the all-Russian level*, the open character of the society to other cultures is provided, as well as distribution of information technologies, enlargement of international cooperation on the basis of cultural values, traditions and norms of the nations, inhabiting Russia and the countries of the World Commonwealth. *At the regional level*, the cross-cultural and international relations are developed between the nations which are tightly living in the Russian Federation. The higher school shapes those social settings, and students' cultural and moral settings according to which the mental moods in society, the level of culture of the international inter-relations, vector of cultural contacts at the all-Russian and international levels, in many respects, are determined.

2 Materials and methods of the research

In the course of our research the following methods were used:

- *common-scientific methods*: the systemic method, the structural and functional synthesis, and analysis; - *theoretical methods*: generalization, the historical and logical analysis; - *empirical methods*: - study of Russian and foreign literature, documents and results of activities, and pedagogical observation.

Introduction of the Bologna education system provided the following transformations: a two-staged higher education – a bachelor degree and a master degree, introduction of the European credit system, and a modular-based training which assumes more flexible mobility of the teachers and the students. However, "the society of knowledge" serves as the prevailing type of social development for scientists. The special attention of researchers to the sphere of higher education is defined by the current changes connected with reconsideration of the university's role in the modern society. Defining features of society's development, determining semantic connotations of "the society of knowledge", is considered in works of Russian and foreign researchers. Thus, P. Druker, was one of the first researchers who suggested to treat our society as "the society of knowledge". In his scientific works, he characterizes knowledge as "a powerful engine capable to create a new society" [1].

G. Bekhmann considers that, knowledge acts both as the main product of modern economy, and the basic principle for the personality's life activity nowadays, noticing the appearance of "the society of knowledge" [2]. Risk as the other side of knowledge is treated in the works by N. Shter [3]. In the philosophical and socio-cultural context, "the society of knowledge" is studied by modern Russian researchers. The scientific works of V.G. Gorokhov are devoted to the problems of the organization of scientific and technical activities in the conditions of "the society of knowledge" [4]. K.H Delokarov focuses readers' attention on moral aspects and value foundations of "the society of knowledge", issuing the problems of education and upbringing [5]. All authors point out that in "the society of knowledge" the significant role is given to higher education, and for the higher education institutions. A new society and a system of economy where information and knowledge play the defining role, set the other qualitative level of requirements to education, causing the need for development of a new educational paradigm for the development of the human capital from the humanitarian stand point. A humanistic orientation continues to be essentially important, which is connected with the person as a subject of humanitarian measurements, and with the sphere of the higher education, possessing a socio-cultural mission in the process of distribution and transfer of values, science and cultures. Simultaneously with the digitalization and the transfer to online-format, all social and political, and social and economic processes, and in accordance with serious scientific challenges and outcomes, a very serious and complicated request for

ethical reconsideration of scientific and technical progress is formed. Scientists of Institute of Pedagogy, Psychology and Social Problems treat this problem from a stand point of a new paradigm within cognitive pedagogy according to which the student is considered as an active subject capable to influence socio-cultural development, and to create humanitarian environment of the life activity. The key educational vector is the development of teacher's humanitarian potential, along with the solution of current problems on student's training and professional development which is focused on creative perception and the solution of the tasks preparing future cultural transformations of the personality [6].

3 Results

The researchers of Institute of Pedagogy, Psychology and Social Problems developed the concept of the *cognitive paradigm of education* which is based on the appeal to ways, types and technologies of processing of information by the person for creation of an individual system of representations, knowledge and competences in the definite subject area and one's own system of surrounding world cognition with an exit to generation of knowledge [7]. For this purpose, the *cognitive pedagogy* is treated as an integral psychological and pedagogical science section with an individual focus on education and a reference point on formation of a cultural and semantic basis of students' worldview, generation of subject, pedagogical and scientific knowledge to the subjects of training. The specific feature of Russian education remains the priorities not only in education, but also in an individual development as a kind of enrichment the content of education within value and semantic orientation. This serves as a "human-forming" knowledge, and development of the corresponding cultural values by the specific personality [6]. The main resource of the educational organization in realization of the humanistic orientation of higher education is highly-professional personnel. The results of our research show that at certain distinctions between the developmental strategies of the educational organizations of higher education, the common "necessary and sufficient" conditions for the realization of the conceptual ideas of a humanization are as follows:

1. *The development of a professional and corporate identity of the personnel of the educational organization* provides integration of all resources which is possible in terms of mutual complementarity within socio-cultural integrity which comprises a system of gaining of the cognitive capital,

The unique, developmental vector both for an educational organization, and the career strategy of each student and each teacher is created in accordance with the requests and abilities of all participants of social and communicative interaction. Being members of one educational team, and the holders of the social status, the students and the teachers identify themselves in accordance with certain norms and corporate requirements of the educational organization, defining corporate character of the personality. Formation of professional corporate identity is carried out successfully in the presence of a mission, values and meanings of the higher education organization developing as a unique social ecosystem, and as an open socially-oriented higher education institution defining vectors of positioning of the organizations' high status. We have outlined the dominating properties of educational corporation: prevailing of the intellectual capital; science development and individual development on the basis of the academic freedom; the axiological bases (which are formed on traditions of solidarity in the inter-generational and inter-human relations on philosophical and worldview teachers' competences); an ability of the educational organization to use the available resources for achievement of a final goal, and, at the same time, a functioning mission – achievement the quality of education. The phenomenon "professional and corporate identity", studied by us, is a dynamic formation, participating in

the process of professional and individual development of members of the educational organization via means of internal coordination of one's own values, values of teachers' and students' communities and values of the organization. It is possible to determine the vectors mentioned further as a pre-requisite for the formation and the development of professional and corporate identity. They include adoption of corporate philosophy; change of management style in a teaching team on the basis of values of the educational organization; information support of social and communicative interaction in professional pedagogical community; development of professional and corporate culture; increase in the status of reputation and image of the educational organization; creation of sufficient and necessary conditions for realization of professional and social interests of employees; the involvement of employees into institutional, professional, and socially-oriented projects; emphasis on professional self-determination, self-organization and self-development of pedagogical workers. It should be noticed that the professional and corporate identity is an objectively existing category reflecting cross-disciplinary character in various contexts of science: psychology, pedagogy, sociology (social anthropology), philosophy and in political science.

The professional and corporate identity comprises the following components: a cognitive component, a value component, an affective component, a connotative component.

We defined the following functions of a professional and corporate identity: an adoptive function, an integrating function, a regulatory and ethical function, a communicative function, a motivational function, an assimilatory function.

The main criteria of a professional and corporate identity are as following:

- a systemic criterion defines an approach to a professional and corporate identity as to the certain complete, social and pedagogical system which is formed under the influence of social, economic, institutional, psychological factors;

- a scientific criterion suggests the use of methods of the scientific analysis, and a scientific knowledge, implementation of modern scientific technologies and diagnostic tools in the course of the analysis and formation of development mechanisms of a professional and corporate identity as tools of management;

- a cultural and historical criterion is based on studying features of formation a corporate and professional identity in the definite social environment under the influence of cultural and historical conditions.

- a criterion of social responsibility defines social responsibility of all actors of education as an ability to be responsible for the actions, results of scientific research and their realization according to the principle of human-conformity. The corporatism has to be increased (on condition of moral agreement), forming orientation of all members of the organization's personnel on social responsibility and solidarity of purpose and values. The result of formation of a professional and corporate identity is participation and loyalty of members of the teaching personnel. Their participation shows their readiness to be a part of the organization, to express the opinion and to join actively in management; the loyalty, in its turn, reflects the correct, and positive attitude both towards colleagues, and, in general, to the educational organization [6].

2. *Development of social and communicative interaction which assumes a change of social and professional interactions between personnel of the educational organization of higher education, focus on positioning of the organization.* The mission and the strategic objectives of the educational organization of higher education tends to become individually- significant for each member of pedagogical team, and the corporate values get closer to the individual and professional values, broadcasting to the external environment via means of professional communications due to various information channels. The professional and corporate identity is reflected to a corporate way of thinking; belonging to

any given university allows to enlarge and strengthen personal and professional communications of an individual. At the beginning and establishment into a profession, scientific contacts tend to increase, and the social and professional communications are enlarged, being used for the scientific purposes, and informal communication that creates a basis for development of a social capital extends. The development and the stabilization of mutual professional communications depend on trust, which is the socially-significant phenomenon, and a core of a social capital of the educational organization.

3. Development of trust level in a pedagogical team supplies the formation and the development of professional communications, and is the main condition of their transition to the status of mutual and stable professional relations between the subjects of education which positive efficiency promotes close inter-relation between the formations of the cognitive capital, and leads to its updating, replenishment and development.

Thanks to a social capital of the university, additional resources of professional communications on the basis of trust between the subjects of educational activity to each other will be mobilized that provides success of educational process and development of the educational organization [8]. Issuing trust in the educational organization, and in the pedagogical team, we define trust as a condition of an employee's subjective experience in the educational organization, this is the recognition form which is characterized by confidence in professional and personal characteristics of colleagues (subjects of education) within which he (she) enters professional interaction, and belief in success of their joint pedagogical activity, as well, and the development of its strategy and tactics [6].

The following positions of trust in the formation of the human and social capitals of the educational organization should be noted:

- appearance of the trust in a certain pedagogical team, creating conditions both for development of a separate subject, and for the development of the whole university, which is considered to be a professional, social network; the success of university's activity depends on density of a "social fabric (material)", quantity and quality of professional communications between pedagogical employees of the organization;

- trusting relationship at the university influences on the enhancing the quality of knowledge and enlargement of professional and labour competences of a certain pedagogical worker or employee and pedagogical personnel of higher education institution, in general;

- the trust creates conditions for development of corporativism of the educational organization, the trust is closely connected with corporate and cultural identity and develops along with it; the trust is positioned as a certain cultural norm.

Creation of the atmosphere of trust in the educational organization and also trust between higher education institutions and social institutes, is a necessary condition for optimum use of potential of pedagogical workers and the personnel of higher education institution, development, updating, creating of components of a cognitive capital of the educational organization - the human and social capitals [9].

4 Conclusion

1. Globalization of education stimulates the establishment of a person of knowledge, who is a person-humanist in the society of a new socio-cultural type while realization of the following necessary and sufficient conditions: development of professional and corporate identity of personnel of the educational organization; development of social and communicative interaction; development of trust level in a pedagogical team.

2. Realization of the ideas of cognitive pedagogy in the system of sciences is considered as a possibility of enhancing the mechanisms of knowledge about the surrounding world while preserving its sociocultural values and scientific knowledge on the basis of active information saturation.

3. The universities' mission has to be expanded and innovated in new conditions with new opportunities of digitalization and scientific achievements in the sphere of cognitive science and their pedagogical adoption.

References:

1. P. Druker *Management tasks in 21-st century*. (Aspekt-press, Moscow, 2002); P. Druker *Epoch of break: vectors in rapidly-changing society* (2007)
2. G. Bekhmann Materials of an article collection "*Theory and history of sociology*", 34 (2010)
3. N. Shter Sociol. J., **2**, 33 (2002)
4. V. Gorokhov Materials of an article collection "*Theory and history of sociology*", 109 (2010)
5. K. Delokarov. Materials of article collection "*Concept of "the society of knowledge" in the modern social theory*" (2010)
6. R. Gilmeeva, A.Kamaleeva, A. Kats, E. Levina, V. Maslennikova, L. Mukhametzyanova, T. Tregubova, L. Shibankova *Cognitive pedagogy* (2020)
7. E. Levina, L. Mukhametzyanova Kazan Ped. J., **3 (140)**, 7
8. E. Levina, R. Gilmeeva, L. Shibankova *Pedagogy*, **7(84)**, 91
9. L. Shibankova Materials of an article collection "*Development of a human in the era of digitalization*", **2**, 176 (2020)
10. E. Levina, R. Gilmeeva Materials of an article collection "*Development of a human in the era of digitalization*", **2**, 7 (2020)
11. E. Levina, R. Gilmeeva, L. Shibankova Materials of VI International Forum on pedagogical education "*Perspectives and priorities of pedagogical education in the era of transformations, choice and challenges*", 146 (2020)
12. R. Gilmeeva Kazan Ped. J. , **2(139)**, 55 (2020)
13. L. Shibankova Kazan Ped. J., **3(140)**, 19 (2020)
14. R. Gilmeeva Mess. of Kaz.GUKI, **3**, 131 (2020)
15. M. Yemini Perspectives: Pol. And Pr. In higher ed., **20**, 90 (2016)
16. G. Cherniawski European J. of Teacher Ed. , **40**, 127 (2017)

Implementing innovative teaching methods in the digital environment

Tatyana Glotova^{1*}, Irina Kolchugina²

¹Penza State University, Department of Computer Automated Design Systems, 440026, 40 Krasnaya Street, Penza, Russia

²Penza State University, Department of Chemistry, 440026, 40 Krasnaya Street, Penza, Russia

Abstract. The article examines the issues of adopting the innovative teaching methods to effectively organise the educational process within blended and distance learning and teaching. The examples of curricula design using modern information technologies and elements (resources and activities) of the digital learning environment of Penza State University are given. The teaching methods and features of their employment are described. The authors highlight the need for further elaborating the issues of ongoing methodological support for teachers in the field of information and pedagogical technologies.

1 Introduction

The global transition of all educational institutions to distance learning has prioritised the adaptation of teaching methods and approaches to manage the educational process in an effective way. The analysis of transferring higher education to the distance learning mode (spring semester of the 2019/2020 academic year) and blended learning (autumn semester of the 2020/2021 academic year) combining different formats and changing over time primarily indicates the decreased quality of training due to the lack or insufficiency of traditional face-to-face communication. Direct communication between students and teachers in the existing learning environment cannot be overestimated in terms of managing and governing quality education. However, in the context of distance learning, the university curricula should be modified by including innovative information and pedagogical technologies, adopting active and interactive learning methods in the digital learning environment, developing and employing additional feedback tools.

2 Relevance and background

The survey of publications of this period shows that the search for the effective methods of teaching and managing the educational process using e-learning elements and distance technologies is highly relevant for various study fields and educational institutions. The authors of the article focus on organising independent work of students enrolled at Penza State University (PSU) and on applying active and interactive learning technologies [1]

* Corresponding author: tatyanaglt@yandex.ru

within the digital learning environment of the university. Following the questionnaire conducted among PSU students, the specific methods (project method and case method) were defined and the identified innovative methods were tested using the capacities of the university digital learning environment. The article suggests that each of the presented directions to adopt active and interactive learning methods using distance learning technologies has its own didactic and methodological advantages and their choice depends on the aims and objectives of a particular teacher. However, the authors mostly examine the management of students' independent work and the indicated methods regardless of the specific features of the disciplines studied. The opportunities and benefits of PSU digital learning environment in developing interactive content are presented in terms of the project activity of students [2]. The article details the practice of employing active learning methods in the digital learning environment, which is exemplified by the use of interactive "Lecture" element for delivering lectures and "Forum" element for organising mutual assessment of students within the e-course Electronics 1.2 [3].

The article considers managing the contact work with students in higher education [4] and proposes an algorithm for giving interactive classes as an element of methodological support. This algorithm is not implemented in the digital learning environment. The promising directions of applying distance learning methods and technologies are analysed in several publications [5, 6], but the specific use of active and interactive learning methods is not considered. The study guide [7] classifies innovative methods of teaching and comments on the possibility of employing them under distance learning. The authors address the issues of introducing methods of active and interactive learning in PSU digital learning environment, provide the examples of curricula design and characterise the distinctive features of the disciplines studied at the university.

3 Teaching methods and their implementation

The adoption of teaching methods depends on many factors, including the target audience, type of teaching activity, available resources, as well as course content [8]. It is generally accepted that such classes as lectures have a low degree of interactivity. They mainly aim at transferring and assimilating knowledge and presuppose using demonstrations as a teaching method. However, even online lectures can be saturated with some innovative techniques. At Penza State University, teachers apply such online platforms as Zoom, Google Meet, Microsoft Team and others. These platforms make it possible to successfully implement the so-called lecture visualisation [9], which is accompanied by showing slides, tables, figures, diagrams, videos, etc. Students commonly give positive feedback on lectures with intentional mistakes or lectures with missing data. When holding such lectures online, the teacher informs students about a certain number of different mistakes beforehand, and at the end of the lecture, students must enumerate mistakes or insert missing data in the text of the lecture. Another method is delivering one-on-one lectures that activates the interaction between teachers and students and increases their interest in the study field. This method entails online dialogue between teachers and students, during which the problem is posed, the case is analysed, the hypotheses are formulated, rejected or proved, the emerging contradictions are resolved and the solutions are found. In the press-conference lecture, the teacher asks students to pose questions in writing (via chat) for 2 – 3 minutes. At that, these questions should interest them and focus on the announced topic of the lecture. Further, within 3 – 5 minutes the teacher systematises the questions according to their content and begins the lecture, including the answers to the questions asked.

The activating methods are used at the very beginning of the class. Their functions may vary: to attract students' attention, to arouse interest, to test knowledge and skills in order to ensure the transition to the next step or stage of training. This group of methods include a

blitz survey, a mood barometer, and a filter for moving on to the next topic. These methods can be employed in the digital learning environment through the capacities of learning management systems, social networks, software environments for video conferences and webinars. Practical experience of the authors shows that most effective activities of PSU digital learning environment are “Choice”, “Quiz” for two or three questions and “Forum” of the question-and-answer type, when the student sees the answers of his/her fellow students only after the submission of his/her own. The choice of element depends on the type of questions and the planned accuracy of the answer. Within “Forum” element, it is also possible to introduce gamification, for example, giving a reward badge for the best answer. Such badges will be converted to additional points for the discipline under the point-rating assessment system.

Practical classes can be conducted online using the discussion method. This method enables students to assimilate knowledge in an active, profound and personal way. Discussion is designed for increased interaction and engagement of students. It provides a vision of how well students understand the issues under discussion and does not require more formal assessment [10]. The discussion method is a way to freely express opinions and exchange different viewpoints on the topic under consideration. This method enables highlighting the topic in various aspects and considering the differences and similarities that increases interest in the topic, thereby deepening students’ understanding and stimulating the study of various issues. It is well suited for the completion stages of exploring the specific topics, sections and the course as a whole. The discussion method is naturally included in the implementation of the research method and the project method.

In the distance learning mode, the discussion method is one of the most difficult teaching methods for following and using effectively, since almost always the benefits of cooperative learning will be less compared to the traditional (face-to-face) mode. However, discussions help to create the collaborative learning environment. This method in various versions is essential for designing quality training courses in case of distance or blended learning. Different ways of applying the discussion method under these modes of learning are considered in some publications [7, 14] highlighting the face-to-face and online phases of generating a discussion, while both synchronous and asynchronous modes of information exchange are possible. Thus, the World Cafe can be organised online in a forum or chat, providing a platform for discussion.

Brainstorming is the most available form of discussion. It is a good way to quickly engage all students in group activity based on the free expression of their thoughts on the issue under consideration. There are no criticism or long discussions. Brainstorming is particularly relevant for starting or completing a topic, as well as for finding multiple solutions. The interaction of students may be facilitated both on forums and in chats.

Jigsaw as a cooperative learning method can be successfully implemented in the digital learning environment. When using the method, the main topic is subdivided into sub-topics. After the phases of group work, they are again united in one topic. Group communication of students may take place online, where information is processed and discussed. In this case, both synchronous and asynchronous forms for exchanging and disseminating information are possible. It is proposed to arrange Group Jigsaw in a combined way: dividing students into groups divided by topics or concepts (first phase), initiating group discussions and information synthesis (second phase) and reconvening groups to share findings produced following topic-specific group discussions (third phase). In the absence of face-to-face communication of students, the effective adoption of this method requires establishing online communication in a synchronous mode, preferably in the video mode. To ensure active participation of all students it is essential to thoroughly plan the activity, engage a reasonable number of participants and have good skills in moderating discussions. In the digital learning environment, this method can be employed using tools for organising

forums, chats, wikis, and collaborative documents. PSU digital learning environment recommends providing a passive “Forum” at the initial stages of delivering courses, and later, as experience increases, facilitating discussions in forums, asking questions, and guiding [13].

Under digital learning, mind mapping is an indispensable tool for structuring and organising knowledge. Students can create their own maps and also use multiple presentation software. A mind map allows examining the content structure of a topic area. This method can be used for knowledge organisation, where the content is presented systematically in the form of conceptual links in order to clarify its meaning and relationships.

When conducting laboratory classes within the courses in Chemistry, Physics and Biology, teachers can use virtual laboratories, which are an interactive environment for designing, performing and describing experiments. According to experts, virtual laboratories cannot replace the real process of conducting experiments, but they are gaining momentum in higher education institutions in many countries around the world [11]. The alternative to virtual laboratories is learning through open educational resources. Performing experiments in a virtual laboratory can be replaced with watching available videos or animations.

In the digital learning environment, the portfolio method is well employed by means of automating the collection of completed assignments (using “Task” element in PSU digital learning environment) and unlocking the potential to evaluate assignments and comment on them. Moreover, it is possible to further automate drafting of an electronic student portfolio for employers and to produce a graduate portfolio. This method is used in the digital learning environment of the university to foster relationships among graduates and employers.

The role-playing method is used to familiarise students with the selected topic (professional task, problem, conflict) in the form of a game. Role-playing initially aims at accelerating and encouraging face-to-face interaction, increasing communication skills, adapting students to team work and stimulating professional problem-solving. The role-playing game can be arranged in the digital learning environment in the text mode of “Forum” element using colour highlighting or profile pictures depending on the role of students. It is preferable to hold such games in the video or audio conference mode. This method can be further upgraded through virtual or augmented reality and computer games.

The journaling method is used for knowledge assimilation control and self-evaluation in the final phase. Under journaling, it is not the content, but the distribution of topics that is assessed. This method provides teachers with relevant feedback to understand the learning path of a particular student. The method is well implemented in the learning management systems, e.g. in PSU digital learning environment, the teacher can configure the assessed assignments within the course in such a way that both the student and the teacher see necessary information for analysis in the form of a transcript of records.

The student peer feedback method is widely used in mass educational e-courses to check the completion of assignments by students with no teacher involvement. The effective adaptation of this method requires formulating assignments in a methodologically correct way, laying down assessment criteria and defining rating scale. PSU digital learning environment includes “Workshop” element of PSU digital learning environment for mutual assessment with a wide range of customisation options, but the mutual exchange of views among students and groups is also possible using standard “Forum” element. The three-colour quiz method [12] can be effectively employed for formative assessment. Students are divided into small groups to jointly work on a document or communicate in a forum. At that, actions should be described for each student.

4 Case studies of course design and implementation

Below are the examples of designing curricula by means of modern information technologies and elements (resources and activities) of the digital learning environment at Penza State University.

The discipline Computer Science (1st academic year, Bachelor cycle) is offered using the following teaching methods: learning activation; blitz survey within such elements as “Choice”, “Quiz” and “Forum”; portfolio for combining assignments into term project on developing a database application; interactivity within “Forum” element to answer students’ questions on the term project and give feedback, which are available for students of the upcoming years; role-playing for the defence of term projects with black and white opponent roles. Students submit their term projects to “Forum” element in advance for their further evaluation by the opponents, then students present reports, deliver presentations and answer questions during a synchronous video or audio conference and demonstrate the developed application via the Zoom platform.

The discipline Computer Data Processing Structures and Algorithms (2nd academic year, Bachelor cycle) is delivered using the strategy of a flipped classroom. The teacher places materials for preliminary study in PSU digital learning environment in the form of pre-developed presentations, electronic textbooks and links to videos and animations from the open educational resources and MOOCs. The activating methods are introduced for starting classes and initiating reflective practice. The journaling method is used to conduct laboratory and review works. Automatic testing (tests for formative and summative assessment) and students’ mutual assessment of laboratory works are organised in the digital learning environment of the university. The teacher employs the project method to organize the course work of students.

The discipline Information Systems Engineering Methodology (1st academic year, Master cycle) is taught using the research method, project method, discussion method, and the strategy of a flipped classroom. Students study materials placed in PSU digital learning environment and explore research articles on course-related topics. The pro- and contra-discussion method or the Think-Pair-Share (Think-Square-Share) method are applied for examining the material of articles. Within these methods, findings are rendered in standard “Forum” element of the digital learning environment as short abstracts of articles, questions and answers of students. It is maintained in the asynchronous mode. Further discussions shift to the face-to-face or videoconference mode. In practical classes, students develop their projects, applying theoretical knowledge gained. Technical solutions of projects are presented for expert discussion, while project schemes and diagrams are uploaded to “Forum” element for discussion in both synchronous and asynchronous modes. To implement their projects, students explore possible models, methods, and software tools. Organising discussions to complete an extensive topic on design patterns, when each student is responsible for a specific pattern, makes it possible to deeply understand the features of each pattern, compare the advantages and disadvantages of using it in a specific project. The results of the course are summed up using the round-table discussion method. The method was tested under traditional (face-to-face) learning, and later transferred to the distance one. This requires demonstrating the discussed topics in the form of electronic presentations and moderating student communication (managing the process of asking questions). Students are highly engaged in the discussion process, and as a result, they comprehensively study the topics of the course.

5 Conclusions

Nowadays, considerable effort is devoted to developing and adopting innovative teaching methods and integrating modern information and pedagogical technologies. It should be noted that the implementation of innovative methods in the digital learning environment tends to reduce their effectiveness, compared with their use in traditional teaching. However, following these methods in a methodologically correct and timely way can still significantly increase the performance of courses delivered in the context of distance and blended learning. In addition to time and labour costs, the effective use of active and interactive teaching methods requires high qualifications of teachers and their awareness of pedagogical and information technologies. Therefore, it is necessary to offer professional development courses for teachers and familiarise them with the best teaching practices. It is important to explore the issues of ongoing methodological support for teachers in the field of information and pedagogical technologies.

References

1. V.V. Maliataki, K.A. Kirichek, A.A. Vendina, *Open Education*, 24 (Moscow, 2020)
2. A.A. Oleinik, O.E. Maslennikova, *Horizons and Risks of Education Development in the Context of Systemic Changes and Digitalisation* (Moscow, 2020)
3. V.V. Grebennikov, Yu.V. Shulgina, *Implementation of active teaching methods in the e-course Electronics 1.2* (Tomsk, 2016)
4. V.G. Mamchuk, *Bulletin of Moscow University for the Humanities* (Moscow, 2020)
5. T.V. Glotova, I.G. Krevsky, *University Education* (Penza, 2015)
6. S.B. Shitov, *Norwegian Journal of Development of the International Science*, **3**, 43 (Oslo, 2020)
7. M. Lazovic, *Innovative methods in higher education teaching* (Hildeshelm, 2018)
8. Yu.V. Gushchin, *Dubna Psychological Journal*, 2 (Dubna, 2012)
9. T.G. Mukhina, *Active and interactive educational technologies (forms of conducting classes) in higher education: Textbook* (Nizhny Novgorod, 2013)
10. A.P. Panfilova, *Innovative pedagogical technologies. Active learning: Study guide* (Moscow, 2009)
11. A. Kukulska-Hulme, E. Beirne, G. Conole, E. Costello, T. Coughlan, R. Ferguson, E. FitzGerald, M. Gaved, C. Herodotou, W. Holmes, C. Mac Lochlainn, M. Nic Giollamhichil, B. Rienties, J. Sargent, E. Scanlon, M. Sharples, D. Whitelock, *Innovating pedagogy 2020: Open University Innovation Report 8* (2020)
12. E.N. Zemlyanskaya, *Modern Foreign Psychology*, **5**, 3 (Moscow, 2016)
13. Authoring team, *About Moodle. Pedagogy*
14. Authoring team, *ENTEP Didactic Manual* (2019)

Innovation model of relations between Russia and China in the context of science and educational cooperation

Yelena Ivukina *

Ural State University of Economics, 8 Marta/Narodnoy Voli St., 62/45, 620144 Ekaterinburg, Russia

Abstract. This article is devoted to the investigation of Russia-China higher education cooperation. Both countries are involved in the modernization process in the framework of the global educational environment, which stimulates the achievement of a high level of teaching and provides a variety of research forms and international experience in joint adaptation. Special attention is paid to three main constituencies of academic innovative cooperation namely students' engagement, lecturers and researchers' involvement and creation of joint universities and research centers with their definite purposes, current status and priorities respectively. The article makes recommendations in terms of strengthening the bilateral Russian-Chinese educational process and overcoming the barriers that arise in this alliance.

1 Introduction

Nowadays under the conditions of economic and social world community development, further science and technologies progress, each country is involved in increasing the requirements for the education system, content and methods of teaching. In general, a university aims at reproducing and transferring social experience due to the peculiar features of the social and economic systems. Thus an expansive international scientific cooperation and innovative capacity are viewed as priority goals in Russia and China in the framework of science and educational cooperation.

It is worth mentioning that under the conditions of obvious limitations in terms of extensive innovation models of Russian and Chinese economic development, the use of bilateral scientific and educational cooperation, focused on increasing the national innovation potential is of great interest. It is assumed, that modernization of an education system demands studying of different foreign countries experience. This article is devoted to the investigation of innovation model of relations between Russia and China in the context of scientific and educational cooperation.

*Corresponding author: esi99@mail.ru

2 Research methods

This research paper is based on the implementation of the general scientific methods: generalization, deduction, a situational analysis as well as comparative and sampling methods, etc. Undoubtedly, the implementation of these research methods will contribute to submitting a profound analysis of objective advantages of each constituencies with their unique niches and features, referring to bilateral academic interaction in a broader scope. Three main areas of academic cooperation are identified as variables: attracting foreign student; attracting foreign lecturers and researchers; and establishing joint universities and research centers. Based on the situational analysis of the necessary resources and possible effects of these investigated areas, a conclusion is made about the priorities of academic cooperation and tasks within each area, i.e. about the “hierarchical arrangement” of variables [1]. In terms of a sampling method, in our research paper we use it for ranking Russia and China in the world by the education level index (see Table 1), where the first place corresponds to the highest indicator value, and the last one to the lowest [2].

Table 1. Ranking of countries in the world by the education level index

Rating	Country	Index
1	Germany	0.946
... 33	Russia	0.832
... 110	China	0.636
... 189	Nigeria	0.243

Source: United Nations Development Program: Human Development Index (HDI): Education Index, 2019. [URL: hdr.undp.org.]

The World Education Index is a combined indicator of the United Nations Development Program (UNDP), measuring the achievements of a country in terms of the education level of its population by two key indicators: 1) adult literacy index (2/3 weight) and 2) index of the total share of students receiving primary, secondary and higher education (1/3 of the weight). But it's worth highlighting, that such a versatile indicator possesses a number of limitations reflecting the quality of education itself, and on the other hand, this index does not take into account the foreign students, which may distort data for some small countries.

3 Problem statement and discussion

3.1 Current status of Russian-Chinese educational cooperation

In recent years, higher education cooperation between Russia and China is mainly concerned with strengthening their competitiveness in student and staff mobility, research cooperation, joint degree education provision, etc. As it is accepted by the scientific community worldwide, higher education in general, and in Russia and China particularly, coincides to great extent, embracing the following constituencies:

- an increase in international reputation and competitiveness of both countries, which largely depends on intellectual capacity and technology as well as effective institution performance and the education organization itself;
- the opportunity to get a high-paid job and make a successful carrier;
- the possibility of getting a huge amount of information about universities, expanding the students' worldview;
- the growing demands for higher education by importing high quality education resources from both countries.

At present, the university' missions of teaching, research and economic development are evoking from being merely a facilitator for transferring technology to individual firms to being a force for fostering regional economic and social development [3].

The matter is that both universities operate in an innovative mode, assuming that the innovating process itself is a motivated, purposeful and conscious process for the creation, development, use and dissemination of modern (or modernized) ideas (theories, techniques, technologies, etc) that are relevant and adapted to these conditions and meet certain criteria [4]. On the other hand, Chinese and Russian universities are involved in the process of higher education internationalization, defined as a factor in the educational organization development and its subjects, which stimulates the achievement of a high level of teaching; provides a variety of research forms and design activities, co-adaptation of international experience, etc. [5]. Actually, when cooperating with Russian higher education, China is more concerned with importing advanced Russian education resources to enhance the capacity of its universities. Yet, China, has overtaken the United States in terms of total number of science publications. Indeed, both countries are on the verge of becoming global actors in science, technology and innovation. Nevertheless, we can also acknowledge some obstacles in this issue, including the following aspects: a lack of trust and mutual understanding between Russian and Chinese universities. In broader scope, China is still facing a dilemma between either to lose its educational sovereignty or to import advanced educational resources from Russia. The other issues embrace bilateral collaborative education provision, namely on quality assurance, determined by differences in aims for cooperation, financial commitments, and perception of quality between partners of both sides.

3.2 Students' engagement: strengths and weaknesses

According to the situational analysis, we should take into account the above-mentioned key areas of academic innovative cooperation (students' engagement, lecturers and researches' involvement and creation of joint universities and research centers) with their specific purposes, current status and priorities correspondingly.

Taking into consideration the students' engagement issue, its goal consists of expanding interaction in the area of non-linguistic specialties, focusing primarily not on the number of students and curricular but their quality, leading to the improvement of the graduates' career perspectives. Traditionally, the path to scientific, technical and innovative cooperation between both countries lies through the students' exchanges and mutual study of languages. About a third of Chinese students in Russian universities and the majority of Russian students in Chinese universities studied Russian and Chinese respectively. The choice of specialties can be related both to the interests of the students themselves and to the availability of places for foreigners in the relevant specialties at the universities. Moreover, Russian higher educational institutions are generally more willing to accept foreign students in non-linguistic specialties. Actually these specialties can be taught not only in Russian and Chinese, but also in English. Nowadays Russian and Chinese students

are more interested in studying especially natural sciences alongside with technical and engineering specialties, contributing to achieving a progress in the sphere of scientific and innovative projects.

The education system in China is often determined as pragmatic, egalitarian, democratic and selected. As a matter of fact, admission to a Chinese university is considered as a very complicated process, determined by a strong competition among them, accounting from 200 to 300 people per place. According to statistics, there are more than 2 thousand universities, colleges and professional higher schools with 9,5 million people enrolled in studying process in China [6]. As far as the recent researches are concerned, Russia and China have reached an approximate parity in the number of students studying at each other's universities – about 20 thousand people from each country per year, i.e. approximately 40 thousand people in 2017 academic year [7]. Actually, the number of Chinese students studying abroad is still growing rapidly, with a compound annual growth rate of 13.9% over the last decade [8]. In terms of Russia, it faces the problems in attracting foreign students. Upon the whole, approximately 8 million students are accounted in the country whereas only 150 thousands, or 2% are foreigners [9]. Although Russia has a high reputation all over the world, its higher education market is far from being saturated. In fact, the world market of educational services has the following structure: US - 40%, UK – 15%, France and Germany approximately 10% whereas Russia – about 2%, etc.[10]. We can propose that this poor rating is determined by the following reasons: the language barrier; complicated procedures for obtaining visas; the complexity of practice admission and further employment; it is even impossible to get the policy of obligatory medical insurance for foreign citizens, the problem of attracting foreign students, etc.

The Chinese government has signed several agreements on mutual recognition of diplomas with 64 countries and regions, including Russia, Germany, Italy, England and others [11]. Thus the China's higher education system already deserves an international reputation.

The other key priority in terms of student engagement is characterized by improvement and expansion of graduates' career prospects. Profound studies justify that a country benefits most from investment in international education if foreign graduates remain employed in the country rather than return to their homeland [12]. Consequently, it is advisable to correspond the university openness policy for foreign students with the openness policy of the labor market for graduates in order to eliminate the bureaucratic barriers to graduates' employment. In fact, employment of Chinese graduates in Russia is more preferable.

3.3 Academic staff and researchers' involvement: benefits and obstacles

As it was mentioned above, the second key area of academic innovative cooperation is academic staff and researchers' involvement process, aimed at providing them with the opportunity to get acquainted with the scientific and educational systems of Russia and China. Therefore, it enables to establish working contacts in order to conduct joint projects in the sphere of R&D. The third purpose embraces the optimization of program implementation due to the specialties diversification and exchange formats.

Investigating the current state of this process, it is worth pointing out a number of objective and subjective factors: an access of foreigners to the labor market; political and geographical priorities of academic cooperation, competition between national and international academic staff and the openness of universities to foreign lecturers and researches [13].

In accordance with the Chinese system, academic staff and researchers, coming from abroad, are identified as foreign specialists who get a work permit but it should be noticed that only few Russian citizens work in Chinese universities. Obviously, it is determined by two reasons: on the one hand, Chinese universities are oriented to the standards of recognized world leaders in the educational sphere (primarily the US), and on the other hand, nowadays Russia is still comparatively isolated from the world academic environment.

Recognition of the Russian PhD degree as the equivalent of the Western PhD (or Chinese «boshi») is another urgent issue. The fact is that Russian degree of Candidate of Sciences corresponds to the associate professor title, affecting the overall attractiveness of the Russian education system. Consequently, for Chinese academic staff it is more preferable to get a PhD, without which they can hardly climb their career ladder.

3.4 Creation of joint universities and research centers: challenges and opportunities

Another priority of this article is to investigate the current state of research centers and joint universities in both countries. Cooperation with universities would sow the seeds of future research and attract employees; collaborating with national research institutes would gain them access to facilities [14]. As it turned out, there is a principle difference among research centers, joint universities and exchange programs for students and academic staff, taking into consideration some peculiarities of the Chinese education system. In fact, the Chinese system in the higher education sphere is reluctant to creating branches of foreign universities thus concentrating on the implementation of joint projects with Chinese institutional partners. To great extent, the process of choosing them is determined by the following criteria: prestige of the university on the educational market, geographical criterion, and interest of Chinese actors in cooperation with Russian ones.

4 Conclusions

Thus, taking into consideration the above-mentioned statements, it is worth making definite conclusions in the context of Russian-Chinese education cooperation.

First, in order to attract Chinese students to Russia and Russian student to China, it is necessary: to shift the focus from training programs' quantity to their quality; to concentrate on attracting students to non-linguistic (natural science, IT technologies, engineering, etc.) majors; to expand the graduates' career prospects.

Second, to attract academic staff, it is advisable: to encourage lecturers and researchers of both countries to establish working contacts for performing joint R&D projects; to diversify opportunities for permanent and temporary employment of Russian and Chinese specialists in the educational institutions; to establish grant support for academic staff.

Third, for joint ventures and research centers development, it is recommended to: give priority to the most prominent projects; to be flexible in terms of designing educational programs, taking into account Russian and Chinese differences in the sphere of science and education.

References

1. E.M. Mora - Valentin, *Ind. High. Educ.*, **14**, 165 (2000)

2. Education Index (2019). <http://hdr.undp.org/en/content/education-index>
3. H. Etzkowitz, *Sci. Public Policy*, **29**, 115 (2020)
4. P. Shimko, *Bul. Unecon Series Economy*, **3**, 337 (2008)
5. A. Shumeyko, *Modern problems of Science and Education*, **6**, 532 (2015)
6. O.V.Vasyukhin, Q. Xu, *Problems and prospects of economics and management*, **3**, 79 (2014)
7. N. Warikoo, U. Allen, *Stud. High. Educ.*, **45**, 2398 (2019)
8. Y.Z. Cai, *Front. Educ. China*, **9**, 175 (2014)
9. P. Antipov P. Optima Study *Int. Educ. Lang.*, **2**, 12 (2013)
10. K.Yu. Burtzeva *Sci.Vector TSU*, **2**, 63 (2014)
11. S.-H. Yun, *Int. J. Comm.*, **9**, 710(2015)
12. J. Bergerhoff., L. Borghans, P.K. Seegers, T.ban Venn, *IZA J, Eur. Labor Stud.*, **2**, 3 (2013)
13. H. Horta, J.M.Santos, *Stud. High. Educ.*, **45**, 2382 (2020)
14. Y. Caloghirou, N.S. Vonortas, S. Ioannides, *Sci. Public Policy*, **29**, 82 (2002)

Integrating soft skills development into English language class

*Svetlana Andrievskikh, Valentina Lapina**

Ural State University of Economics, 8 Marta Street, 62, 620144 Ekaterinburg, Russia

Abstract. Many employers around the world express their concerns about recent graduates' lack of necessary soft skills. They claim that new hires are inadequately prepared for handling some of the common challenges which have to be addressed at the workplace and the skills gap is widening with every passing year. Employers are looking for candidates who can understand and analyse ideas, tackle complex issues, actively contribute and take responsibility when working on projects, and are willing to develop their skills and acquire the new ones throughout their careers. Being aware of the problem, the authors undertook a study and propose some suggestions of integrating soft skills development into university English Language class.

1 Introduction

The turmoil of the XXI century and the growing impact of technology have changed our routines making us find new ways of leading, organising, working, learning, performing and fulfilling our everyday needs. When the whole world is adapting to the new normal, the labour market is extremely tight, which means soft skills such as problem solving, critical thinking, and innovation are more important than ever for recent university graduates. Soft skills development has been considered crucial for a number of years with companies paying great attention to carefully choosing candidates possessing the necessary soft skills to compete and thrive in the new environment. The market is developing very dynamically, new jobs, which we even could not think of yesterday, appear every day. Getting into university today, matriculants cannot be absolutely sure that their future profession will still exist when they graduate. So the challenge faced by education institutions today is not only to provide students with strong professional skills but help them master soft skills as well. This situation is universal, and Russia being interwoven into the world education system through Bologna process is not an exception in this context.

In 2018 HeadHunter and Microsoft conducted a study of the Russian labour market. The extensive examination of 11.6 million vacancies and 21.4 million CVs resulted in identifying several important soft skills, like critical thinking, complex problem solving, collaboration, emotional intelligence, and creativity.[1] According to the study, the new recruits should demonstrate certain skills sets. For example, a marketing specialist should be creative, good at multitasking, critical thinking, analysing huge amounts of data, leadership, and

* Corresponding author: valentina_lapina@yahoo.co.uk

communication. An analyst should prove cognitive flexibility, adaptability, attention to detail, presentation skills, and ability to work in a team. And the higher the position is, the more crucial the soft skills are.

Sberbank Corporate University, which was established by the Sberbank group, the largest bank in Russia, focuses on providing learning opportunities for managers and company leaders. Currently, the Corporate University offers a Soft Revolution program that consists of six modules.

- Soft Revolution: how to be an engaging presenter?
- Soft Revolution: how to collaborate with business partners?
- Soft Revolution: how to be a great team player?
- Soft Revolution: how to master complex problem solving?
- Soft Revolution: how to deal with large amounts of data?
- Soft Revolution: how to manage time successfully?

The findings from McKinsey Global Survey on future workforce conducted in 2020 reveal that some organizations will face skill gaps within the next five years, while others report existing skill gaps. [2]

“Employers cannot solve the skills gap issue alone; they need support from education systems to build talent pools with skills relevant to today’s business needs”. [3] *The Skills Gap 2019* Therefore “It’s really important for companies to tell academia ... what they are looking for.” [4] Bloomberg As a result, *The Atlas of Emerging Jobs* has been adopted by a great numbers of higher education institutions. The Atlas was developed by the Agency for Strategic Initiatives (ASI) in collaboration with Skolkovo Business School and gives a detailed description of employment trends, new professions and soft skills of the future. [5]

According to Marina Gorbis, “the soft skills are the most important and the toughest to master”. [4] Bloomberg and that is why it is important to start planning for the future and developing soft skills as early as possible. In our opinion, a foreign language class is a perfect ground to master soft skills as students are able to learn from their peers, are not afraid of making mistakes and a foreign language course takes the whole two years to complete, which means that our work can be continuous, persistent and purposeful.

2 Methodology

The methodology for our study consisted of descriptive research design and a survey which comprised of a questionnaire, interviews, group discussions and observations.

3 Research findings and suggestions

Our research involved 70 first - and second - year students of Ural State University of Economics. Prior to distributing our questionnaire we asked our respondents if they were aware of the term “soft skills”, what skills they considered important for their future careers, what skills they would like to develop and what kind of activities and university subjects helped students build up the necessary skills. Only 10 students out of 70 (about 15 %) were confident about the term; the others had never heard of it (70%) or were not sure if they understood it correctly (15%).

That is why we provided students with a list of the most important soft skills, and then we had small group discussions, so the students were given the opportunity to learn more about soft skills before filling in our detailed questionnaire.

The findings were a bit confusing. Only 43 percent of the respondents thought that university education promotes soft skills build-up, 36 percent expressed doubts and 21 percent gave a negative answer. Most students (65%) supposed they were able to develop

soft skills by themselves, pursuing their hobbies, participating in university extra-curricular activities, or taking different courses outside university, doing sport (14%) or working (29%).

Skill areas considered most important by our students are communication skills, including making presentations, effective listening, good speaking and writing skills (74%); people skills, including team work and handling conflicts (64%); organizational skills, including time management and effective planning (58%). Only 14% mentioned self-management skills such as self-motivation, ability to learn, make decisions and solve problems; and 11% emphasized IT skills.

The majority of respondents would like to improve their communication skills (60%), flexibility, i.e. the ability to deal with challenges, new plans and ideas (57%), organizational skills (50%).

Analysing the questionnaires we were obviously greatly surprised by the fact that 21 percent of the students did not think that they could improve their soft skills during university classes, although we should take into account students' unawareness of the term and their lack of comprehension that soft skills development is an integral part of the university learning process.

It is worth mentioning that 60 percent consider their English classes a good opportunity to evolve their soft skills, and we, teachers of foreign languages, fully agree that soft skills development is an important part of foreign language classes and our aim is to contribute to increasing our students' employability.

Let us consider the ways we can integrate soft skills development into our classes. Aligning soft skills development with foreign language classes requires understanding of the skills first. For example, critical thinking which is considered one of the key skills needed at the workplace helps develop rational thought, and makes students examine and explain their reasoning for using this or that argument or doing something in a particular way.

In Cambridge Life Competencies Framework Critical thinking is divided into three areas:

- “Understanding and analysing links between ideas”,
- “Evaluating ideas, arguments and options”,
- “Synthesising ideas and information”. [6]

Regarding the English language classes, while doing reading tasks, we can help our students improve their critical thinking skills by asking them to list key ideas in texts, compare opposite views, identify unconvincing arguments, select weighty arguments, and offer their reasoning. By doing that, we add perspective to reading tasks and encourage our students to reflect on how critically they complete reading tasks. We teach our students to understand topics, main ideas and supporting details, skim and scan, guess the meaning of words, work with the dictionary. They should be able to separate facts and opinions as “ In this digital age we are surrounded by texts full of so-called facts but which do not necessarily come from guaranteed sources” [7]. Then, students should be able to find additional information to prove or debunk ideas and beliefs, answer questions, make plans and write abstracts. All these skills will be of great use in many jobs.

Moreover, we can successfully apply critical thinking development to writing tasks if we ask our students to think long and hard and observe carefully. We focus on helping our students learn how to convey their ideas and information in writing. One of the writing tasks we offer our students to complete is writing a book review. The objective of this task is to encourage students to think critically about the book. We usually extend the writing task into a group debate with plenty of “why” questions.

We believe it is very important to engage students into various debates as these require evaluation, address complex issues and motivate students to judge their counterpart's arguments and design solutions. Participating in debates, our students get the opportunity to practise communication skills, active listening skills, and presentation skills. Active listening skills are essential for debates, thus we motivate students to listen carefully to their

counterparts, making sure they understand their counterparts and do not make any assumptions. We encourage our students to clarify by asking detailed questions or, when necessary, reword the message to check the understanding of the key points and demonstrate active engagement.

We also use debates to enhance teamwork and collaboration. According to Collaboration Guide for Teachers and Educational Managers, collaboration involves four main areas

- “Taking personal responsibility for own contribution to a group task”,
- “Listening respectfully and responding constructively to others’ contributions”,
- “Managing the sharing of tasks in a project”,
- “Working towards a resolution related to a task” [8].

Naturally, when getting ready to debate and while debating, students are involved in active collaboration, they take turns to speak and explain their points in detail, they encourage other students to contribute their ideas, opinions and comments, offer points to develop the discussion, and after the debate they do their best to provide helpful feedback.

We are aware of the fact that every person has their own opinion, skills and different level of knowledge. So the ability to work with others efficiently, wasting less time and efforts, is considered crucial today. Students must be able to work together supporting each other, while looking for solutions to solve problems. Collaboration provides students with vital interpersonal skills that prove to be very important at the workplace.

To equip our students with collaborative skills, we involve them into project work, providing them with extensive support, step-by step guides and practical tips at the early stage. As students have to collaborate with others to plan their work, so they hold a planning meeting first, share the tasks and assign roles, and they work out a schedule. Then, they research necessary information. During their work on the project, the students practise to ask other group members for help and offer help, so we encourage them after completion of their share to give their work to their partners to check. When the final product is presented, the students are given evaluation sheets to make notes of interesting things in presentations and check if all the necessary information is included in the presentation, if everything is clear and easy to follow. By evaluating their efforts and the efforts of their groupmates, they obtain practical, transferable skills.

To illustrate our project work activities, let us give you an example. First, we teach our students the structure and the language of a presentation, watch examples of effective presentations and those that went wrong, analyse the reasons of their success or failure, suggest better strategies. Then, we ask our students to make presentations of startup companies. Our students work in small teams of 3 or 4 and produce their presentations. Students pay a lot of attention to structuring and organizing their speech, as they realise that a good presenter must be a good speaker, who can both keep the audience interested, and achieve the result they need. “The usage of project method is directed at time-management skills and skills of planning and performing public speeches” [9].

As “lifelong learning has been identified as a means of sustaining employability as well as professional and career growth” we usually emphasize the importance of continuous learning. [10]Developing soft skills With technological advances and regular changes being introduced in the labour market, our students have to be well-prepared to acquire new skills and knowledge throughout their working lives. Thus, we draw our students’ attention to learning to learn skill.

According to Learning to Learn Guide for Teachers and Educational Managers, there are three main areas of focus:

- “Practical skills for participating in learning”,
- “Taking control of own learning”,
- “Reflecting on and evaluating own learning success” [11].

It is evident, that learning to learn competency develops students' autonomy, thus, teachers of the foreign languages should plan activities to provide their students with opportunities to develop their learning to learn skill. The initial stage of learning to learn skill development can include the reflective and evaluative skills build-up to monitor students' progress. Teachers of the foreign languages can support by providing self-feedback forms for students to evaluate their performance. As university students are expected to complete coursework as a part of their educational course, we provide our students with practical ideas that help them with planning and conducting their research. First, we discuss how to find sources of information that are reliable and academic, then, help students choose relevant facts and data, and, finally, provide guidance on writing.

4 Conclusion

For higher education institutions developing soft skills should become a priority, as they are the employability skills which many employers are looking for nowadays. Teachers of foreign languages should be encouraged to make skills development clear to students, they should explain the way the skills are to be developed and assessed during the course. Relevant teaching techniques should be applied to provide students with the opportunity to actively participate and ensure effective skills development. University graduates in management positions will inevitably need to assess reports or present strong arguments to persuade their audience, therefore, foreign language classes should provide future managers with extensive practice to make them successful and to help them advance in their careers.

References

1. HeadHunter, Microsoft. The Russian Labour Market survey (2018)
2. S. Agrawal, A. De Smet, P. Poplawski, A. Reich, Beyond hiring: How companies are reskilling to address talent gaps, McKinsey & Company (2020)
3. T. Burner, L. Supinski, S. Zhu, S. Robinson, Cate Supinski, The global skills shortage Bridging the Talent Gap with Education, Training and Sourcing, Society for Human Resource Management (2019)
4. The Atlas of Emerging Jobs, the Agency for Strategic Initiatives, Moscow, (2015)
5. Building Tomorrow's Talent: Collaboration Can Close Emerging Skills Gap, The Bureau of National Affairs, Inc. (2018)
6. Cambridge Life Competencies Framework, *Critical Thinking, Introductory Guide for Teachers and Educational Managers*, Cambridge University Press (2019)
7. J. Hughes, *Critical Thinking in the Language Classroom*, ELI Publishing, (2014)
8. Cambridge Life Competencies Framework, *Collaboration, Introductory Guide for Teachers and Educational Managers*, Cambridge University Press (2019)
9. E.D. Platova, A. V. Pavlova, Soft skills development in teaching business interaction, 10th International Conference "Word, Utterance, Text: Cognitive, Pragmatic and Cultural Aspects", European Publisher (2020)
10. M. Wats, R. K. Wats, Developing Soft Skills in Students, *The International Journal of Learning Annual Review*, **15** (2009)
11. Cambridge Life Competencies Framework, *Learning to Learn, Introductory Guide for Teachers and Educational Managers*, Cambridge University Press (2019)

Intercultural Competence in Practice: Internship Abroad in the B.A. Program “International Information Management” at the Hildesheim University Foundation

Olga Mennecke

Hildesheim University Foundation, Lübecker Str., 3, 31141 Hildesheim, Germany

Abstract. This article outlines the relationship between the internship abroad and intercultural competence, which has become a key qualification in the context of globalized higher education. The aspects of the intercultural-orientated curriculum and its challenges are described based on the concrete example of the internship implementation.

1 Introduction

In the last decades and especially after the Bologna declaration, which set the framework for the common European higher education, many European degree programs have implemented one or two-terms study or internship abroad. The B.A. program “International information management” (IIM) at the Hildesheim University Foundation, in which students are given a choice between a semester abroad or a minimum 12-week internship abroad, is no exception there. These two options are intended, on the one hand, to intensify student’s research-oriented specialist knowledge in the field of information management, and on the other hand to strengthen and reflect on intercultural competence through a stay abroad.

This article intends not only to continue the theoretical discussion on the confluence of internships abroad and the development of students’ intercultural competence but also to show its successful practical implementation. First, the theoretical framework related to intercultural competence as one of the key competencies in the globalized world will be outlined. So, it seems to be that more disappointing that despite the understanding that intercultural competence should be strengthened during the university studies and international mobility programs for students, the internship structural implementation in the curriculum is often deficient and, as practice shows, associated with prejudices about a greater effort on the part of students. In contrast to the semester abroad, thus, an internship abroad still plays a rather subordinate role in the academic context. The procedure of the curriculum internship implementation within the Bachelor program “International Information Management” at the Hildesheim University Foundation that motivates students to start their first professional experiences abroad simultaneously undergoing a significant process of refinement of their intercultural competencies will be disclosed below. This concept of merging an internship with the enhancement of intercultural competence, which

reflects the orientations of the European higher education, can be successfully applied in many other graduate programs as well.

2 The concept of intercultural competence as a theoretical construct

It is challenging to find another issue discussed so often in the last few years than intercultural competence. After all the countless attempts to define and locate it anew, there seems to be at least an abstract theoretical consensus, that intercultural competence is an indispensable and fundamental attribute. In the academic field as well as in business and the job market, intercultural competence has become a so-called core - or key-qualification to strive for [1]. Evidently, the comprehensive definition of intercultural competence requires touching on many areas - cultural, anthropological, psychological, linguistic, etc., which is not possible within the scope of this article. Often, the construct of intercultural competence is simplified and described as the ability to interact appropriately in intercultural contexts, in which certain cultural "rules" are expected to follow and to be respected considering a certain socio-political framework [2]. Furthermore, intercultural competence is presented as a multidimensional construct of affective, cognitive, and behavioral categories [3].

Some concepts define intercultural competence as learned problem-solving ability bundled with cultural and environmental awareness [4]. One important aspect of this definition is the significance of self-responsibility which is crucial for the autonomous learning process based on self-organization and self-directing as given in the European educational context [5]. Adopting this aspect of self-responsibility for the concept of intercultural competence makes it clear, that the learning process should be conceptualized in a way to provide students with strategies for overcoming problems in an intercultural field. Accordingly, German theorists often subordinate intercultural competence to the concept of action competence ("Handlungskompetenz" as an ability of acting and making decisions self-directedly) [6,7].

Thus, keeping all these aspects in mind, it would be beneficial for both universities and students, if intercultural competence were to be treated as a variety of abilities that enables an individual to interact with culturally different counterparts delicately and solve tasks reflectively following the given situational interculturality [7]. But no matter which definition one may favor, the long-term nature of the intercultural competence formation process can be considered as one of its main characteristics, which makes it a lengthy and successive one.

3 Implementing Interculturality

According to a survey conducted by the German Academic Exchange Service in 2011, which examined the view of German companies on the international experience of Bachelor and Master graduates, the international experience of job candidates is highly valued by companies and is seen as an advantage when hiring them [8]. To follow this internationalization trend, universities are trying to expand student mobility programs and adapt their study courses to them to improve the important aspect of international reputation. However, what aspects should be taken in mind within the intercultural-oriented curriculum without creating a gap between theoretical concepts of interculturality and educational practice?

If students decide for an internship abroad, bureaucratic routines often play a predominant role during the preparation phase, which has to be done besides actual academic tasks, so that students hardly have the time capacity to attend one or more

workshops or training on intercultural competence. Thus, the complex process of intercultural learning is only barely touched upon or not mentioned at all. However, it would be crucial to foster the perception of intercultural encounters, which is necessary for the constitution of intercultural knowledge patterns. The goal of intercultural learning is that these knowledge patterns trigger such actions that positively influence intercultural experiences. This moment would mean the transformation of the knowledge and the action patterns into intercultural competence [9]. Such theoretical concepts of intercultural learning have to be sufficiently elaborated in the preliminary phase.

The main phase of the internship abroad, which consists of everyday tasks or longer project work, depending on the chosen company, is mentored by a supervisor. Support in terms of intercultural competence is unfortunately lacking here. Back at the university, students evaluate their major and development process during the internship abroad by writing a report in the final phase. Ideally, forums with guest contributions from former interns should be integrated into the curriculum. That would be helpful both for themselves concerning the supported self-reflection of their intercultural experiences but also for the prospective interns in the preparation phase.

4 Embedding of the Internship Abroad in the B.A. program “International Information Management” at the Hildesheim University

In the Bachelor program “International Information Management” at the Hildesheim University internship abroad can be chosen by fifth-semester students as an alternative to one-term study abroad. The fifth semester is only a recommendation on the part of the study regulations, as it is assumed that by then students have acquired enough expertise and have determined their interests so that they can prioritize a certain practical direction and find an internship according to their preferences. The process of internship search, as well as the accommodation search, is mostly done on one's own, the internship coordinator advises students in the initial phase and, if needed, provides a list with the pool of foreign companies where former IIM-students have already had their internships, but most students do their own motivated search. This already involves engaging the action competencies that are important for a successful application process. Three aspects have to be considered while searching for an internship:

- a) relation to contents of the study program (the possible internship tasks can be very diverse:
 - software development and project management
 - development of internet applications
 - activities in the field of usability
 - consulting and software ergonomics
 - projects in online marketing and corporate communication
- b) international field of the company should be present through partners or customers
- c) the internship communication, which should take place in a foreign language (so it can be excluded that students choose German companies abroad).

The last two aspects are crucial for the further development of intercultural competence. If the requirements on the part of the university coincide with the potential internship position, an internship contract can be signed. It must be a full-time internship that should last at least 12 weeks. Upon agreement with the internship site, students can extend the duration of the internship. During the internship, it is recommended to write down daily tasks to facilitate the writing of the compulsory internship report. The report should inform about the internship organization, as well as a detailed description of the tasks performed.

Also, there should be a brief account of the experience gained, as well as a critical evaluation and reflection of the internship, especially concerning the content of the study and intercultural competence gained during the internship.

So, how do IIM-students evaluate the impact of the internship abroad on their intercultural competence according to their reports? To determine the impact of the internship abroad on intercultural competence, 25 reports from 2018 and 2019 were randomly chosen and analyzed in terms of student self-evaluation of their intercultural competence before and after the internship abroad. The way students describe their internship experience makes it obvious that it is considered extremely beneficial. The table below shows the categories mentioned in the IIM-students' reports concerning their self-reflection of intercultural competence:

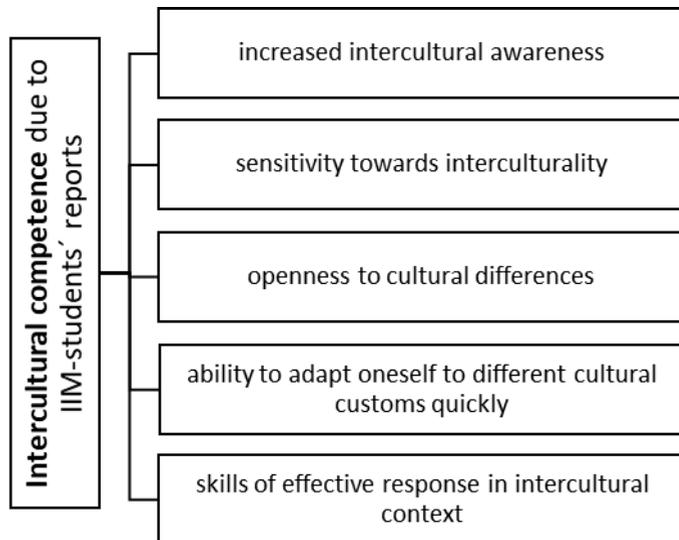


Fig. 1: Categories of intercultural competence according to students' internship reports

All students rate their intercultural competence after completing the internship period of at least 12-weeks significantly better than before. Although some of the students have taken advantage of the training offered by the International Office at the University of Hildesheim, aiming to prepare students for short- or long-termed academic stays abroad, they report feeling insecure about having sufficient intercultural skills before starting the internship. This insecure state seems to improve with the advancing duration of the internship: the longer the stay abroad, the more aware students become of their intercultural skills (some students report positive tendencies concerning intercultural awareness already after 2 weeks, but most of them need 4 to 6 weeks). Returning to the structural embedding of the internship abroad in the curriculum, it should be finally mentioned that because of the lengthy application process and the preparatory measures as well as for the actual internship tasks, IIM-students receive 25 credit points and for the summary of the report further 5 credit points.

5 Conclusion

This short analysis of the students' self-evaluated interculturality within their internship reports provides a further indication of the enormous importance of the internship abroad for the development of intercultural competence. According to these self-evaluations, different languages and communication patterns, deviating expectations from the

counterpart and culturally conditioned interpretation habits are among the cultural diversities that students encounter while abroad. The theoretical considerations on intercultural competence outlined here can be adopted as an example of the practical implementation of the interculturally oriented curriculum to advance the further development of intercultural skills of students during their stays abroad. It is my view as the author and at the same time as the IIM internship coordinator, that to realize students' potentials in intercultural competence, generally, a critical view on the university as an institution and its' educational goals in the context of internationalization is needed. In practice, the first meaningful measures for that could be the integration of intercultural training in the curriculum and the overthinking of the preparatory mobility activities as well as closing phases with students' supported self-reflection after the abroad experience.

References

1. Otten, M. & Robertson-von Trotha, C. Interkulturelle Kommunikation als Schlüsselqualifikation in der Hochschulbildung: Erfahrungen an der Universität Karlsruhe (TH). In: Mattias Otten, Alexander Scheitza & Andrea Cnyrim (Hrsg.). *Interkulturelle Kompetenz im Wandel, Band 2: Ausbildung, Training und Beratung*, Münster: LIT-Verlag. 245 (2009)
2. Bertelsmann Stiftung, Fondazione Cariplo (Hg.) [Interkulturelle Kompetenz – Schlüsselkompetenz im 21. Jahrhundert?](#) Gütersloh/Mailand: Bertelsmann Stiftung. Retrieved on December 15, 2020)
3. Dearnorff, D. Assessing intercultural competence in study abroad students. In: Micael Byram & Anwei Feng (eds.). *Living and Studying abroad*, Clevedon: Multilingual Matters. 232 (2006)
4. Jones, E. Internationalization and employability: The role of intercultural experiences in the development of transferable skills. In: *Public Money & Management*, **33** (2), 95 (2013)
5. Buchmann, U. & Huisinga, R. Curriculum research and development. In: Felix Rauner & Rupert Maclean (eds.). *Handbook of Technical and Vocational Education and Training Research*, Heidelberg: Springer. 517 (2008)
6. Bolten, J. Grenzen der Ganzheitlichkeit – Konzeptionelle und bildungsorganisatorische Überlegungen zum Thema „Interkulturelle Kompetenz“. In: *Erwägen Wissen Ethik (EWE)*, **14** (3). 157 (2003)
7. Li, Y. Developing intercultural competence on the basis of study abroad experience at the university level. A socio-economic design-based case study, Detmold: Eusl - Verlagsgesellschaft. 87 (2017)
8. German Academic Exchange Service/Deutscher Akademischer Austauschdienst (DAAD) (2011). Bachelor und Master auf dem Arbeitsmarkt. Die Sicht deutscher Unternehmen auf Auslandserfahrungen und Qualifikationen, Retrieved on December 14. 56 (2020).
9. Thomas, A. Introduction. In: Alexander Thomas, Eva-Ulrike Kinast & Sylvia Schroll-Machl (eds.). *Handbook of Intercultural Communication and Cooperation. Basics and Areas of Application* 2nd ed., Göttingen: Vandenhoeck & Ruprecht, 1. 7 (2010)

Interdisciplinary integration as a basis for forming an environment-oriented component of competencies

Olga Vasina^{1,*}, *Olga Ponomariova*², *Tatiana Kotelnikova*³

¹Penza State University, Department of General Biology and Biochemistry, 440026, 40 Krasnaya Street, Penza, Russia

²A.V. Khrulev Penza Branch of the Military Academy of Logistics, Department of Humanities and Socioeconomic Disciplines, 440005, Penza, Russia

³Penza Social Pedagogical College, Department of Primary School Education, 440052, 3 Gogol Street, Penza, Russia

Abstract. Most disciplines of the compulsory part of the curriculum and its part defined by education stakeholders in line with the corresponding study field have a significant resource for forming an environment-oriented component of competencies in students. The authors aim at identifying and showing the possibilities of interdisciplinary integration in the formation of the environment-oriented component of universal and professional competencies in the process of fulfilling the requirements of the Federal State Educational Standards. The article illustrates the practice of implementing interdisciplinary integration in higher education when forming the environment-oriented component of competencies by means of experimental work within the educational process at Penza State University and A.V. Khrulev Penza Branch of the Military Academy of Logistics. It is shown that the interdisciplinary integration implies not complementing the disciplines with additional ecological content, but creating a new system with emergent properties that are of interest of both environmental and field-specific education.

1 Introduction

The practical implementation of interdisciplinary integration has been actively explored in recent years. This is reflected in the publications of V.N. Maximova, V.N. Fedorova, V.M. Monakhov, E.N. Knyazeva, P.T. Kulagin, N.A. Loshkareva, V.E. Medvedev, S.I. Popova, O.D. Shabalin and others [7; 8; 9; 16; 17]. Interdisciplinarity in higher education is currently viewed as a synthesis of professional and social ideas, as one of the leading didactic principles and methodological approaches and as a result of processes of differentiating and integrating acquired scientific and academic knowledge. The Federal State Educational Standards include requirements for the structure, workload, implementation and learning outcomes following the successful completion of the basic professional educational programmes, but do not determine the educational content. The

* Corresponding author: onvasina@yandex.ru

standards provide leeway in designing educational programmes and enable their environmentalisation based on interdisciplinarity and unity of compulsory (formal) education, further (non-formal) education and awareness-raising (informal education). The integration of the environment-oriented component into most disciplines of the compulsory part of the curriculum and its part defined by education stakeholders in line with the corresponding study field has a great capacity for promoting emotional and values-based attitude to nature [10; 11; 13]. Its aim is to identify and show the possibilities of interdisciplinary integration when forming the environment-oriented component of universal and professional competencies in compliance with the requirements of the Federal State Educational Standards. The scope of research is the educational process in higher education. The focus of research is the interdisciplinary environment-oriented integration in higher education.

2 Theory and research methodology

The theoretical framework for research is the publications of V.V. Nikolina, G.E. Zalessky, I.Ya. Lerner, V.V. Kraevsky, O.N. Ponomariova, A.N. Zakhlebny, E.N. Dzyatkovskaya, and D.S. Ermakov [2; 4; 5; 6; 12; 14; 16]. The competence-based, culture-based and interdisciplinary approaches [5; 13; 14] serve as a methodological basis for research.

The competency-based approach lies at the core of fulfilling the requirements of the Federal State Educational Standards directed at training of higher education graduates with professional competencies essential for society in general and an individual employer in particular. At the same time, there is a shift in the aim of education from predominantly theoretical training of students to practice-oriented training of a qualified person capable of responding to various challenges using his / her knowledge, skills and abilities (V.A. Bolotova, V.V. Davydov, P.Y. Galperin, I.A. Zimnyaya, V.I. Gorbachev, E.F. Zeer, E.Ya. Kogan, O.E. Lebedev, E.A. Lenskoy, A.A. Pinsky, V.V. Serikov, N.V. Troshin, I.D. Frumina, A.V. Khutorskoy, V.D. Shadrikov and others) [3; 5; 15].

The culture-based approach is the key to selecting the educational content with regard to acquiring and fostering culture in a purposeful and consistent way, providing conditions not only for the acquaintance, but also for the immersion in culture and assimilation of cultural values. According to scientists, the educational content goes beyond the content of sciences and it is not limited to their foundations (the academic discipline and the foundations of sciences are considered as a part and as a whole). Hence, the educational content is defined as a pedagogically adapted social experience represented by four components:

1. Knowledge about nature, society, technology, human, and methods of activity;
2. Experience in employing the known methods of activity, which are embodied along with knowledge in skills and abilities of a person;
3. Experience of creative activity, which is represented in special intellectual procedures that cannot be described in the form of algorithms;
4. Experience of emotional and value-based attitude to reality, which is realised in a set of values that play a motivational role in behaviour and determine the choice of methods for managing life in general and specific activity in particular (V.V. Kraevsky, I.Ya. Lerner, G.V. Mukhametzyanova, A.M. Novikov, I.M. Osmolovskaya, O.N. Ponomariova, M.N. Skatkin, A.V. Khutorskoy and others) [1; 3; 4; 12; 15].

In addition to the fact that the experience of emotional and value-based attitude is the main component of the educational content (according to I.Ya. Lerner), it determines the relationship between education stakeholders and presupposes the expression of emotions, which include love for parents and relatives, respect for homeland, deep knowledge of ancestry, native language, culture, and history of the people, caring for the young ones, empathy, and loyalty to customs. This is the basis of education [14].

The interdisciplinary approach is the framework for using interdisciplinary connections to synthesise environment-oriented materials in various disciplines / modules, while all structural elements of social experience are detailed in the content of the discipline / module in line with the focus of the academic discipline and its specific features. Under professional training (regardless of its area), the environment-oriented materials (as a component of social experience) are obtained, assimilated and transmitted in the process of interdisciplinary integration (within natural sciences and humanities), which contributes to the formation of basic knowledge and skills in the field of ecology and nature conservation and, mainly, to the achievement of personal outcomes in the field of culture. At that, the environment-oriented component is integrated with the economic, political, legal, and cultural ones (V.N. Maksimova, V.N. Fedorova, V.M. Monakhov, E.N. Knyazeva, P.T. Kulagin, N.A. Loshkareva, V.E. Medvedev, S.I. Popova, O.D. Shabalina) [7; 8; 9; 16; 17].

An important element of the environment-oriented component of competencies is a pattern of emotional and values-based attitude to nature, which can facilitate changing the attitude towards other environmental objects and various activities. Favourable emotional and values-based attitude to nature adopted by a person is actively manifested in emotional and values-based attitude towards personal health, other people, labour, profession, homeland, world as a whole [15; 19; 20]. However, higher education ignores the materials accumulated by pedagogical science on the formation of positive emotional and values-based attitude (methodology of geography, methodology of ecology, etc.). Neither didactic tasks for its generation in the youth are clearly formulated, nor effective psychological and pedagogical ways of their solution are defined. In addition, the environment-oriented potential of various academic disciplines is not taken into consideration [14; 15].

Ecology as a science associated with almost any study field and accompanied by the simultaneous development of new integrative branches (e.g. urban ecology, ecological linguistics, military ecology, radioecology, bioindication, geoinformatics, psychological ecology, space ecology) has a significant resource for forming the environment-oriented component of competencies. Environmental problems are also multidisciplinary, which can be studied within any discipline. In fact, these problems unite different study fields in the search for solutions. When selecting the materials and their content, it is important to recognise the invariable (general theoretical understanding) and variable (academic material, discipline / module) levels of interdisciplinary integration. The invariable level ensures implementing the educational content on a regulatory and legal basis that is characterised by fundamental and integrative focus on professional activity. The variable level contributes to implementing the educational content within the disciplines / modules of the compulsory part of the curriculum and its part defined by education stakeholders (taking into account academic and on-the-job training targeted at professional development) and within awareness-raising.

An important condition for environment-oriented integration is complementing the content of the disciplines in the compulsory part and the part defined by education stakeholders with adapted social experience combining experience in environment-oriented cognitive, physical and creative activity and emotional and values-based attitude to nature [12; 14; 15; 18]. The authors consider designing the content of environmental education as a system of assimilating adapted social experience uniting gnoseological, activity-based, creative, axiological (value-based) elements, the ecological focus of which contributes to forming and developing the environment-oriented component of competencies.

The gnoseological (knowledge-based) element combines environmental knowledge gained by mankind about the biosphere, noosphere, and human as their part, about the unity of their existence and development, about the rules and norms of their interaction, about the contradictions, emerging environmental problems, possible ways and means of their

solution. Environmental knowledge determines positioning of a person in the reality and in the value paradigm. The greater the scope and consistency of acquired knowledge are, the broader the outlook of the student is, the more objects can enter the paradigm of his / her personal values. The assimilation of this element of the content determines the capability to:

- define basic environmental concepts;
- establish and explain cause-and-effect relationships in nature;
- predict effects of environmental phenomena, view and analyse probabilistic processes;
- apply acquired knowledge in new contexts when solving new problems.

The activity-based element covers environment-oriented skills and abilities acquired by a person to conserve nature, undertake rational environment-oriented activity, build daily life, provide environmental education, etc. The abilities determined by the acquired knowledge and skills enable students to act according to the model:

- independently tackling environment-oriented tasks / problems, exploring them (including acquiring necessary knowledge);
- correctly setting aims in accordance with the objective conditions, which may influence their feasibility and attainability;
- addressing environment-oriented tasks / problems in line with the aim and available resources, adopting specific means and methods, improving and working out them in progress, fulfilling the aim.

The creative element presupposes applying the environmental approach to handle current problems in professional activity and to solve environmental problems in current work. It facilitates the development of the ability to effectively handle environment-oriented tasks / problems:

- independently transferring knowledge and skills to a new environment-oriented task / problem;
- identifying a new challenge in a familiar environment-oriented task / problem;
- defining a new function of an environment-oriented task / problem and recognising its structure;
- independently combining well-known methods of environment-oriented activity into a new one;
- presenting an alternative and diversified view of possible solutions to an environment-oriented task / problem in case of conflicting evidence;
- building a fundamentally new way of solving environment-oriented tasks / problems in contrast to other known ways (this new way should not be a combination of the known ones).

The axiological (value-based) element implies discovering the morality of relationship between mankind and nature, which ensures the assimilation of universal values. It allows planning how students master such activities (environment-oriented component of competencies) as search, retrieval, interpretation, evaluation and analysis of new environment-oriented information. Through the assimilation of this component students learn how to frame environmental concepts, to observe and examine causes and effects in nature, to measure positive and negative impact of environmental phenomena, to consider and evaluate natural processes, to use gained knowledge and skills in new contexts.

In turn, the integration of the environment-oriented component and the economic, political, legal, and cultural ones is ensured through aligning the content and information among academic disciplines, applying available environmental knowledge (factual, theoretical, practical) in new situations and testing them. Under interdisciplinary environment-oriented integration, it is not the additional ecological content, which is introduced into the discipline, but a new system with emergent properties that are of

interests of both environmental and field-specific education, which is created. This approach enables students to understand the essence of human attitude to the social and natural environment and clears the way for fostering an environment-centred type of ecological awareness and for shaping favourable emotional and values-based attitude [3; 4; 13; 15]. The capacity and willingness to set and accomplish the worldview, methodology and value objectives of self-identification, self-determination, self-actualisation and personal development can be realised at the same time [15].

3 Results and findings

The major aim of modern higher education is to teach a person to address problems in various areas of life, including the professional one. In this respect, a graduate is regarded as having professional competencies, the structure of which includes:

1. Knowledge as a set of facts required to perform professional duties (knowledge represents the intellectual context, in which a person exists);
2. Skills and abilities, which presupposes adopting and employing means and methods to fulfil specific tasks (polished skills and abilities are reflected in different ways – from physical powers and dexterity to specialised training);
3. Capabilities being the individual psychological characteristics of a person, which determine the “successful” or “unsuccessful” performance of this or that activity (at that capabilities are not reduced to the knowledge-skills-abilities set of a person);
4. Stereotyped behaviours, which are considered as the visible forms of actions taken to complete a task; behaviour includes inherited and acquired reactions of a person to situations and situational stimuli; behaviour displays values, moralities, beliefs and reactions to the environment (when a person demonstrates self-confidence, builds a team, shows action bias, and his / her behaviour meets the requirements of the organisation, the key aspect is observing this behaviour);
5. Efforts (volitional) consist in applying mental and physical resources in a conscious way in certain contexts (the ability to force oneself is the basis to achieve results and produce outcomes) [3; 15].

Regardless of the academic discipline / module and throughout the entire period of study, the universal competencies are formed by means of systematic integration into the educational process through the content, technology and environment. However, the list of competencies does not include the concept of environmental competency. Meanwhile, this is an essential aspect of training, including values and ideas of environment-oriented activity, basic environmental knowledge, as well as experience in solving socially significant environmental problems [3]. As the environmental competency is not distinguished, the authors believe that it possible to single out the environment-oriented component of competencies, which is an important element of professional competence required for a higher education graduate to develop and succeed in the labour market.

The experimental work results in identifying the leading environment-oriented components of universal competencies:

- broadening social experience of interaction between nature and society, advancing ecological thinking and ecological consciousness, adopting emotional and values-based attitude;
- extending practical and theoretical environmental knowledge and skills, including for the development and implementation of environment-oriented projects;
- examining and explaining cause-and-effect relationships, exchanging best practices, distributing responsibilities under environment-oriented team activity;
- establishing communication and intercultural interaction to solve problems / tasks and to undertake environment-oriented activity;

- evaluating and analysing the impact of environmental factors on human health, human development and life safety.

The identified pedagogical conditions have been implemented in practice since 2016. This process is currently ongoing, when delivering the educational programmes within the study field 44.00.00 Education Sciences (at V.G. Belinsky Institute of Teacher Education) and within the study fields 33.05.01 Pharmacy, 31.05.01 General Medicine, 31.05.02 Paediatrics, 31.05.03 Dentistry (at Medical Institute) at Penza State University, as well as when providing the academic disciplines at A.V. Khrulev Penza Branch of the Military Academy of Logistics.

The results indicate a significant educational potential for forming the environment-oriented component of competencies under the academic disciplines: Life safety, Biology and ecology, Military history, Biological underpinnings of living systems, Military topography, Culture studies, Biology, Age anatomy, physiology and hygiene, Chemical, biological, radiological and nuclear defence, Ecology, Geography, Fundamentals of medicine, Chemistry, Ecology and life safety.

The interdisciplinary integration is possible under the following academic conditions:

- including adapted social experience in the content of higher and further education, which combines the experience in environment-oriented cognitive activity, in environment-oriented work methods, in environment-oriented creative activity, as well as in emotional and values-based attitude to nature, society, homeland, health, and profession;
- adding the environment-oriented component to the disciplines in the compulsory part and the part defined by education stakeholders in line with the corresponding study field in order to unite the interrelated gnoseological, activity-based, creative, axiological (value-based) elements reflecting the social environment-oriented experience in its structural completeness;
- saturating the discipline content with fragments of classic fiction and popular science books and information about life experience of various generations stored in proverbs, sayings and other cultural elements;
- tackling the environment-oriented tasks / problems that are significant for the student, under which he or she can adopt practical measures that have real benefits;
- raising the environment-oriented interdisciplinary issues;
- applying the active and interactive methods and techniques with the view to personal experience of students, i.e. outcomes of formal, non-formal and informal environmental teaching and learning and environmental knowledge integrating;
- immersing in the social and cultural ecology-oriented environment of the educational institution in line with the natural and cultural heritage and feasible personal contribution to the social sustainability.

To provide didactic assistance to teaching staff in designing and implementing environmental training and forming the environment-oriented component of universal and professional competencies, a didactic set “Ecology” in six volumes was developed and introduced into the educational process [15; 19; 20]:

1. Ecology. Study Guide provides didactic support for teaching staff. Its materials are used to manage and organise educational activities of an academic type for the assimilation of knowledge by students. The four topic sections of the guide (namely, Fundamentals of ecology, Fundamentals of social ecology, Fundamentals of environmental management, and Global problems of our time) combine the basic ecological concepts and patterns and reveal the features of modern environmental problems.
2. Ecology. Drill Book offers teaching support for the educational process. It presents environment-oriented tasks that stimulate cognitive interest and mental activity of

- students. In addition, the book contains case tasks for roundtable discussions, SWOT analysis, and brainstorming and test tasks for formative and summative assessment to gain feedback, reflect and redirect students' efforts.
3. Ecology. Reading Book as information educational support of the educational process includes environment-oriented texts, which are represented by ecology-filled fragments of art, popular science, social and political publications by Russian and foreign authors. These texts are complemented by the first developed set of tasks and exercises.
 4. Ecology. Teacher's Book provides management support for the environment-oriented educational process and gives methodological recommendations for planning and organising students activity based on feedback. It characterises the features of the environment-oriented educational process and distinguishes the techniques, means and methods of using environment-oriented materials. It also presents a variety of tasks with keys for formative and summative assessment.
 5. Ecology. Workbook for Practical and Laboratory Classes gives an insight into arranging practical and laboratory activity. It compensates for the lack of modern educational materials necessary for conducting practical and laboratory classes with the environment-oriented content for students within the non-core study fields in higher and further education.
 6. Ecology. Workbook includes materials of lectures, practical and laboratory classes on the fundamentals of ecology. Moreover, it contains tasks for curricular and extracurricular activity of students during unsupervised learning.

4 Conclusion

The practice of establishing and fostering interdisciplinary environment-oriented links at Penza State University (V.G. Belinsky Institute of Teacher Education and Medical Institute), as well as at A.V. Khrulev Penza Branch of the Military Academy of Logistics, shows that the interdisciplinary integration aimed at improving environmental knowledge and skills, broadening experience in ecology and nature conservation, promoting emotional and values-based attitude to nature contributes to the formation of the environment-oriented component of competencies in the process of professional training. The didactic set "Ecology" was released to provide didactic assistance to teaching staff in forming the environment-oriented component of competencies in students. This set is represented by a system of structurally integral components: didactic support, teaching support (collection of tasks), information support (environment-oriented texts), and management support (recommendations for managing teaching and learning with regard to feedback).

References

1. O.N. Vasina, Bulletin of Higher Education Institutions, 4 (2009)
2. O.N. Vasina, *Forming emotional and values-based attitude to nature among secondary school children through folk ecology traditions: Thesis* (Penza, 2004)
3. O.N. Vasina, Bulletin of the North-Caucasus Federal University, 5 (2019)
4. E.N. Dzyatkovskaya, Modern Teacher Training, 6 (2020)
5. A.N. Zakhlebny, E.N. Dzyatkovskaya, I.V. Wagner, A.Yu. Liberov, Environmental Education: before School, at School, after School, 2 (2012)
6. A.N. Zakhlebny, *School and Nature Conservation Challenges* (Moscow, 1981)
7. O.V. Zorkina, O.N. Vasina, Humanities and Education, **10**, 2 (2019)
8. V.G. Ivanov, T.A. Ivanova, Vocational Secondary Education, 12 (2000)

9. E.N. Knyazeva, *Philosophy of science. Interdisciplinary research strategies: Textbook* (Moscow, 2019)
10. Authoring team, *Best practices of environmental education for sustainable development* (St. Petersburg, 2017)
11. I.V. Lysak, *Modern Challenges in Science and Education*, 5 (2016)
12. V.V. Nikolina, *Human and Education*, 1 (2020)
13. V.I. Panov, *Psychological Diagnosis*, 1 (2012)
14. O.N. Ponomariova, *Methodical system of teaching ecology in secondary school: Thesis* (Penza, 2000)
15. O.N. Ponomariova, O.N. Vasina, M.V. Smyshlyaev, *Bulletin of Higher Education Institutions*, 3 (2017)
16. V.A. Romanov, *Alphabetical list of topics for doctoral theses in pedagogy and psychology in 1937-2017* (Tula, 2018)
17. O.D. Fedorova, *Logos*, 1 (2014)
18. I.A. Fedoseeva, *Integration of University Science into Social Institutions System: Russian and American Practices* (2018)
19. O.N. Ponomariova, O.N. Vasina, *International Journal of Environmental and Science Education*, **11**, 15 (2016)
20. O.N. Vasina, O.N. Ponomariova, *European Proceedings of Social and Behavioural Sciences*, 90 (2018)

Linguistic Education and Economics: Way to Synergy

Natalia Zolotareva

Ural State University of Economics, Ekaterinburg, Russia

Abstract. The article is devoted to the problem of integrating linguistic studies into education for potential economists. This article aims to mark some important problematical items necessary to realize the reformation of higher philological education and to formulate a number of key statements that could help in future. It deals with the problem of understanding interdisciplinary as a popular important direction in higher education in universities of Russia.

1 Introduction

More and more specialists in higher education are currently talking about the need to introduce linguistic disciplines in the curriculum of economics universities. Interdisciplinarity was claimed about fifty years ago. Despite this fact, academic disciplines still have not switched to the new mode of teaching, they still work as churches, still adhere to traditional theoretical frameworks, research models, and methodology tools. Those who do not support the idea of introducing linguistics learning in teaching future economists can be critical and may concentrate rather on the disadvantages of the new idea. The reason seems to be as follows: the approach or the idea itself might have been adopted not adequately enough.

Economists give more attention to figures and statistical data while linguists in their view rely mainly on some messy data and their own interpretation of the facts. Mention should be made that the situation is not always like this. Currently more and more economists realise that they can and even need to communicate and collaborate efficiently in spite of the differences in the ways they invoked notions from each other's subject.

The reasons for linguists to need economics can be scientific and even political: linguists see that they should sometimes reconsider their own disciplinary traditions concerning the relevance of a language to the welfare of its speaker in such spheres as social economics and politics.

Besides, a language is not the only research domain of a linguist, a linguist is also interested in cross-cultural communication issues, which is also very vivid in economic discussions. An improved cross-disciplinary dialogue can become very productive and help both linguists and economists reach synergy: now when interdisciplinary approach is really prized, it will help economists and linguists to educate each other on matters that include both language and economic development, economic practice and language vitality, etc.

The success of an economist in political decision-making highly depends on what language they speak. They should use the language the policy-makers understand and give

the evidence they believe in. according to Grin, the language of economics as a sphere of research plays a vital role in education and “an increasingly important one in practice”.

Equally, a sustained conversation with economists may help linguists reassess some of their ideological views concerning language vitality. By teaching each other, linguists and economists are sure to provide more informative and more successful assessments of the relationship between language and economy. A cross-disciplinary bridge between linguistics and economics will assist to better understand the socioeconomic world where speakers evolve.

The term *language economics* was introduced by J.Marschak in 1965 meaning the economics approach to language [10]. Later it was proved by the fact that the cost-and-benefit approach to language helped during international takeovers and acquisitions. In the context of foreign trade, Carr explains that the English language has become the accepted lingua franca, like the dollar, “the currency of currencies” and proves that sharing the same language is sure to reduce the transaction costs due to the correct communication. Both language and money are considered as elements of wealth.

The ideological differences show radically different ways of language conceptualisation: for an economist it is only a tool, something practical, and linguists see it as something complex, it is associated with some ideology. In sociologically-oriented linguistics, social relations must be taken into account, as well as social norms and expectations.

An individual’s investment in university education depends greatly on whether they want to get socioeconomic success, which leads to the approach to language as a capital (and this means not only knowing a foreign language but also using the native language properly). The role of literacy with the rate of literacy as an index of economic prosperity and social advancement was for a long time criticized. Fortunately, at present it is considered that literacy and educational background have a great impact on an individual’s business success [2]

Economists correlation between linguistic skills and employment looks at language as the problem and the solution to the economic integration of migrants. Without really fluent knowledge of the language and without investing into its learning a person is not able to obtain the job he or she could be qualified for. it is even considered that such a case reflects the lack of effort or willingness to work within the socioeconomic system of the country.

Economists currently tend to look at language as a human capital, which is considered as a great shift in their understanding of linguistics. Now language is already an asset people, companies and governments invest in. It is a factor which is taken into account when developing some policies. It is now looked at liked this: is it necessary to promote a particular language rather than others? What are the expenses to provide this policy? Both native and inherited languages are considered as capitals, a person’s native language is looked at as indexing the ethnical identity unlike foreign languages, the learning of which is a matter of technical competence.

Economists calculate the expenses of developing such a competence in relation to education, although a foreign language can be acquired naturally if you live in a foreign country and try to interact with its native speakers.

More than that, a speaker can have more than one native language.

For Keynes, a good economist be “*as aloof and incorruptible as an artist, yet sometimes as near the earth as a politician.*” [3] So the key to being a good economist is to combine and blend, to synthesize. So blending of skills is one of the core elements to succeed in business and economy. This is why not only economics matters but also linguistic learning is important.

Keynes gives the following advice to potential economists.

Look at history and be rigorous. Be pure but ready to transact and to communicate.

Skills are also required from you. A good graduate program should give that. A wider vision of the world that comes over time should help. Paul Krugman, a good example of a good economist and whose defunct economist is Keynes, thinks that a good economist needs to read and listen. Krugman expands when he explains his four rules for research:

1. Listen to the Gentiles because an economist might get the metaphor wrong, but someone from a different discipline/perspective might have gotten it right;
2. Question the question, or ask not what your model can do for you, but what you can answer with your questions;
3. Dare to be silly and embrace different assumptions and like Dr. Livingston be thankful that you are there to welcome them; and
4. Simplify, simplify and be a minimalist

To all this Krugman adds the need to engage in policy relevant work because “*some of my favorite papers have grown out of this policy-oriented work*”.

In other words, be relevant and be engaged. But Krugman would not want to go too far this route as “*pretty soon you’ll probably start using “impact” as a verb*”.

So we have a pretty good list: synthesize, develop your skills and use them, listen, question, be flexible, simplify, be relevant and engaged.

Some more can be added [8]:

1. Curiosity to challenge your models and if new data comes in, change them.
2. Honesty and personal ethics. Even nations can fail when honesty is unconstitutional.
3. Humility. After the worse crisis since the great depression, very few economists own up to the fact that even fewer predicted it and some even say that the failure to predict the crisis is because economic theory says they are unpredictable under the “efficient market hypothesis”. At the risk of sounding wooly, the capacity to understand failure and adapt seems more important than ever.
4. More than a big push, in the last decade economics got a nudge and is moving from ideology economics to economics based on facts. Let the data do the talking, and debunk established truths in topics that range from the war on drugs to political correctness.
5. Humor is always good, particularly if you use it to not make a point.
6. So in that vein, it’s good to have a smart partner. Nowadays most papers are written by more than 2 authors, so it probably helps if one of those authors is your partner who understands the difference between input and output when changing diapers.

All these cannot be achieved without good linguistic education blended with economic education.

The situation in higher philological education, despite the vivid problems, doesn’t attract such wide public attention, as for example teaching the Russian language and literature at school. The goals of school program and a list of required reading for over two years have been the subject of active discussion in the professional environment and in special commissions of the government. However, to solve the problems without introducing changes in higher education in the sphere of philology seems impossible [1], [4], [5], [6].

Transformation to the two-level (bachelor + master) system of education is sure to provide opportunities for universities, to develop their own educational standards in the relevant disciplines and educational programs, taking into account such factors as: specificity of the region, the level of students, the material base of the University, etc.

However, the problem of standardization of curricula increased with establishing Federal educational standards pointed out some statements of the system of higher philological education.

Establishing the bachelor degree as the initial stage of higher education resulted in eliminating additional special disciplines, it also caused a tendency towards the unification of the curricula, which in some cases looks impossible and even absurd [6].

The first three years of a bachelor degree of higher education should provide students with a lot of disciplines - humanitarian, social, economic and professional. This is necessary due to some changes in the initial input level of the first year students: the school does not provide them with basic humanitarian level, that is why modern universities are forced to compensate for this [9], [13].

It might be important to correlate the principles and forms of presentation in different lecture courses, coordinate the courses in a module and form a single concept that will allow to see the evolution of culture. For these purposes it is important to hold regular methodological workshops in which teachers represent their vision for the courses, identify existing problems of teaching [1], [14]. Coordination of different courses in the system of higher education should be based on the integrative principle: it is necessary to create courses combining linguistic and literary approaches to the different phenomena, for example, the unity between language and mind, the specificity of ethnic, gender, pictures of the world [14].

2 Conclusions

In Ural State University of Economics students studying World Economics and International Management have an opportunity to get a diploma of an interpreter in the sphere of professional communication. They start with introduction into General Linguistics where they learn different classifications of languages, they learn all the layers language and relations among them/ afterwards, they have the Theory of Translation, Lexicology, Stylistics of English and Russian and finally a course in Practical translation. It is a really good opportunity for them to combine their knowledge of economics and management with linguistics knowledge. Even if not each of them works as a translator or interpreter in the future, they are sure to have a competitive advantage and a unique selling proposition as specialists in the market of Russia or any English-speaking company that deals with Russian trade.

References

1. L.Bushkanets, N. Machinina, L. Nasrutdinova, M. Sidorova, The Formation of higher philological education in Kazan University in the XIX-XXI centuries. *Philology and culture*, **4**, 266 (2015)
2. Grin, Francois. 50 years of economics in language policy: Critical assessment and Priorities. *The Economics in Language Policy*, ed.by Michelle Gazzola and Berndt-Arne Wickstrom, Cambridge, MA: MIT Press. 21 (2016)
3. John Maynard Keynes. *The General Theory of Employment* (1937)
4. I. Kim, Why does society need philologists? *Accreditation in education* URL: http://www.akvobr.ru/filologicheskoe_obrazovanie_perspektivy.html. Checked 25.11.2015/ (2015)
5. E.Kovtun, Why is it necessary to be a philologist today? Attractiveness of philological education in Russia. *Bulletin of the Philology Council of the Association for classical University education*, **10**. 30 (2007)
6. E. Kovtun, Philology master's degree in Russia: yesterday and tomorrow. *Bulletin of the Philology Council of the Association for classical University education*, **12**. 14 (2010)

7. E. Kovtun, Guidelines for the development of the University's basic educational programs on the basis of the Federal Standards in higher professional Philology education [Electronic resource] URL: <http://fgosvo.ru/uploadfiles/mo/20120404084538.pdf>. Checked 25.11.2015. (2015)
8. Paul. Krugman, *International Economics: Theory and Policy, with Maurice Obstfeld. 7th Edition.* (2006).
9. Kuzennaya, T. The Direction of fundamentalization of higher philological education. *Vestn. Baltiysk. fed. Univ.*, **4**. 66 (2007)
10. Jacob Marschak, Economics of Language. *Behaviorial Science* **10**. 135 (1965)
11. H. Ozen, Determining the Factors of Social Phobia Levels of University Students: A Logistic Regression Analysis. *Educational Process: International Journal*, **5(1)**. 38 (2016)
12. M. Savci, F. Aysan, Relationship between Impulsivity, Social Media Usage and Loneliness. *Educational Process: International Journal*, **5(2)**. 106 (2016)
13. M. Schelkunov, M. Nikolaev, Education in the twenty-first century: facing the new challenges. Kazan, 156 (2010)
14. Cecile B. Vigouroux, Salikoko S. Mufwene, Bridging Linguistics and Economics. Cambridge University Press, (2020)
15. E. Yellina, E. Kovtun, E. Rodionova, Competences and learning outcomings: the logic presentation in educational programs *Higher education in Russia*, **1**, 10 (2015)

MBA programs and their perspectives on the regional level in Russian Federation

Irina Stikhina

Ural State University of Economics, 620144, 8 Marta Street 62, Ekaterinburg, Russia

Abstract. This article considers the availability of business schools and MBA programs on the Russian educational market and, in particular, in one of the federal subjects of Russian Federation, Sverdlovsk oblast. The market of MBA programs is reviewed on federal and regional levels and possible further way of development is suggested. In order to reach this goal, the ratings of business schools in Russia, information about them are analyzed and the general trends are defined. The survey confirms the lack of regional MBA programs on the market. Possible advantages of the availability and perspectives of programs with the regional focus are described. Partnerships between regional universities of economics and recognized foreign business schools are presented as the option for further development of MBA programs on the regional level. The Ural State University of Economics is given as an example.

1 Introduction

Business education and MBA programs started becoming successful in the 1980's. According to the Association to Advance Collegiate Schools of Business (hereafter AACSB), by the end of the 1980's there was a 23 percent rise in the overall percentage of MBA graduates [1]. Despite the criticism about MBA curricula, MBA programs have grown and gained popularity for 30 years afterwards. Since the 1990's business schools have been evaluating their MBA content critically and faculties have been constantly adapting the curricular not only to the needs of the industry but also to crucial social changes. Incorporation of ethics, responsibility, and sustainability in management education is the research topic of scientific studies today [2, 3]. Cotton et al. already in 1993 emphasized a mission-based approach acknowledging heterogeneous nature of business schools and capitalizing on individual strengths: business schools differ with regard to resources and objectives across the nations and "...these differences would need to be incorporated and sanctioned, within the accreditation process" [4, p. 17].

Nowadays the variety of MBA programs creates competitive environment in business education. This competitiveness is integral to constant improving and providing high quality business education to students. A lot of programs are available in an online format globally. Still, the accessibility of classic and blended MBA programs is valuable according to the research. The purpose of this particular study is to suggest the further development of MBA programs in Sverdlovsk oblast based on the analysis of the MBA market in this region and in Russian Federation, in general.

The objectives of the research are to review the history of MBA and the development of MBA programs in the USA, Europe and Russia; to specify the general purpose, content of MBA programs and their target audience; to consider the occurrence of main accreditation systems for MBA programs and explain their key features; to review different education formats in terms of MBA programs and perspectives of partnerships between business schools from different countries.

Firstly, a brief overview of the MBA history will be presented. Business schools in Europe have quite a long history. The first business school was created in France in 1819, Ecole Supérieure de Commerce Europe. Already that first school emphasized the international approach: it had seventy-five percent of international students, ten foreign languages were included in its curriculum [5]. The second institution was founded in Belgium in 1852. Further European schools used the same model based on combination of theoretical and practical approach to business education and interdisciplinary curriculum.

Of course, European schools were not the first business schools in the world. US business education had already included trade schools since the late 18th century. However, the vocational education couldn't meet the demand in managers and leaders which were needed for solving problems and implementing innovations in the world of rapid technical changes. Therefore, more academic approach to business education was expected in the society, and this factor stimulated the creation of university-based business schools. Joseph Wharton founded the Collegiate School of Business at the University of Pennsylvania in 1881 where he promoted both commercial training and the classical college education. According to him, it could serve the appropriate level of business education to the efficient managers [6].

It is considered that the first business school which offered the MBA degree was the Harvard Business School founded in 1908. It didn't demonstrate the international approach and was focused on "a liberally educated class of leaders for American society" [7, p. 20]. However, several years before that, the Tuck School of Business, one of three professional schools of Dartmouth College, was founded as the world's first graduate school of management. It served as the prototype for the graduate business school conferring the MBA degree [8].

The popularity of business education has constantly grown since the 1920's. The figures prove intense development: in 1919 there were only 110 degrees in the USA, and in 1949 – 4300 [6]. The curriculum started to concentrate on analytical methods to improve "business planning and decision-making" [9, p. 14]. After publishing two "Foundation Reports" in 1959, the demand for innovative up-to-date curricula, responsiveness and improvement of business education became more obvious. According to Gordon and Howell, the industry needed leaders who were capable of adopting changes and possessed the corresponding skills and flexibility [10]. These leaders' characteristics are still in demand nowadays.

After considering some key stages of business education, we'll specify the main international accreditation systems, which elaborate standards to assess MBA programs and business schools.

Global nonprofit association AACSB was founded in 1916 as the Association of Collegiate Schools of Business. The first general meeting was held in November 1919 at Harvard University where members discussed the elements of the curriculum and their proper balance, teaching of law, relation of business schools to the secondary school system etc. [11]. Developing procedures and standards for accreditation were based on scientific business research. Ford Foundation approved several impressive grants to support some programs and activities of the Association. Since 1960's the influence of the Association grew: in 1968 it accredited the first school outside the US (University of Alberta, Canada), in 1997 the first school outside North America – ESSEC Business School in France. Nowadays the Association has its media, holds different conferences, seminars and forums,

publishes researches, reports and studies and revises accreditation standards to be more accommodating of business school structures in other countries that differ from the traditional US model. It has its own career center platform [12] and is the oldest and the most authoritative accreditation agency in the world [13]. AACSB provides quality assurance, business education intelligence, and learning services to over 1,700 member organizations and more than 840 accredited business schools worldwide [12].

Another accreditation system was presented in 1997 in Europe. As A. Djalali states, this was the beginning of Europe's (re)emancipation process and became a milestone in the settings of European business schools. The EQUIS (European Quality Improvement System) has its own focus which quite differs from the one of AACSB. For example, the EQUIS requires internationalization, focuses more on the general strategy and uniqueness of the school, whereas AACSB concentrates on the quality of curriculum design [9, p.16]. EQUIS accreditation also expanded outside Europe: in 1999 the first non-European school (HEC Montreal) was awarded [11].

The third organization, which accredits MBA programs and is the last element of the so called Triple Accreditation, is the AMBA (Association of MBAs) which was founded earlier, in 1967 in London. This association accredits only the MBA portfolio of a business school but not the school as an entity. It has therefore the narrowest scope. According to the information from the online portal "MBA today", in August 2020, 102 business schools in the world held the "triple crown" accreditation from the most sought-after international accreditations: AACSB, AMBA, EQUIS. 65% of these institutions are based in Europe [13]. It should be also mentioned that the international accreditation systems above are not the only ones that exist.

In the next part the methodology of the research will be presented as well as the development of MBA programs in Russia.

2 Materials and methods

In order to consider Russian and, in particular, regional MBA market (Sverdlovsk oblast) the quantitative content analysis was used in the current research. Such open sources as websites, analytical reports, research papers were studied to consolidate and analyze the textual data. The inductive and deductive methods as well as the comparative method and elements of prognostic method enabled the processing of the data, further interpreting and prognosis.

In Russia, the history of MBA started in the 1990's. Nowadays many institutions offer business education to people who want to become successful leaders. Not all business schools have recognized accreditations. Actually, according to the popular online portal «MBA in Moscow and Russia», which positions itself as the main source of information about business education in Russia, only one business school in Russia has the AACSB accreditation. It is the Institute of Business Studies and Business Administration at the Russian Presidential Academy of National Economy and Public Administration (RANEPA). This institute also has the AMBA and NASDOBR accreditation. The last one is the National Accreditation Council of Business Education in Russia. It is a non-commercial partnership founded in 2012. The aim of this organization is to create the independent assessment system of the quality of business and management education in Russia and to accredit national programs of continuing professional education [14]. Among its founders there are such organizations as Russian Union of Industrialists and Entrepreneurs, the Chamber of Commerce and Industry of the RF, Russian Association of Business Education and others. Currently, different MBA programs in 17 educational institutions have this accreditation [15].

Two Russian business schools have EQUIS accreditation: Moscow School of Management Skolkovo and Graduate School of Management at St. Petersburg University. 14 business schools have the AMBA accreditation.

Of course, if a business school doesn't have an accreditation, it doesn't mean that it can't be trusted. The process of accreditation can last many years. Sometimes, business schools become members of the associations without being accredited. However, the availability of the accreditation is an important benchmark which guarantees the quality and high standards of business education.

In Ekaterinburg, the capital of Sverdlovsk oblast, which is a large industrial city, there are not so many options for students who want to get an MBA degree. Of course, nowadays there are plenty of online courses worldwide. According to the studies, already in 2018 the number of online MBA students in Russia reached 3300. The total number of MBA degrees was then about 7000 [16]. So, blended MBA and classic MBA programs were in demand (more than 50 % of the total number of students chose them). These programs suggest that students participate in different arrangements in person. The availability of such MBA programs, where people can communicate and exchange their experience face-to-face, still remains important and such formats will be in demand in the future.

In Russia, the most significant competition we can observe between MBA programs which are offered by business schools/universities from Moscow and St. Petersburg. 29 from 34 business schools, which are in the rating, are located there. Only a few of them (5) represent other regions (Kazan, Ekaterinburg, Samara, Novosibirsk, N. Novgorod) [15]. This new rating is based on the assessment of programs that alumni provide. According to the survey, these 34 business schools represent 96% of national market in the field of MBA and EMBA programs. We also can state that 85 % of institutions from the survey are business schools/universities from Moscow and St. Petersburg, but only 15 % of them represent regional MBA programs. It becomes clear that the regional market share is not significant. There are 85 federal subjects in the Russian Federation and all of them have their specific economic features. Due to this reason it is so important to develop regional MBA programs which aim at supporting of regional economy and wealth: it means to educate leaders who are capable of creating and improving business environment in their home regions, being able, at the same time, to implement their knowledge globally. Thus, leaders would be able to create efficient international business connections which are so important for developing at the regional level.

3 Results

In Sverdlovsk oblast, which is an important industrial region in Russia, there are a few business schools which provide MBA education. The well-known one is the Business School of the Ural Federal University named after the first President of Russia B.N. Yeltsin (URFU), which is located in Ekaterinburg. It has the 15th place in the rating mentioned above. According to another rating, which shows the popularity of the leading business schools in Russia measuring the users' interest to the information these schools provide (the number of parameters is included, among them, browsing the websites and the news, the number of clicks to the sites of business schools etc.), the Business School of the URFU has the 4th place from nine: 110 views in December 2020 (according to this rating, 20 is the lowest number of views for the Highest Business School of the Southern Federal University in Rostov-on-Don; the largest one is for the Institute of Business Studies and Business Administration of the RANEPa – 1146) [15]. The Ural-Siberian Institute of Business (USIB) positions itself as the leading business school of the Ural-Siberian region. It also offers different MBA programs and has a number of awards [17], the position in the rating of popularity is the 6th (30 views) [15].

Only the Business School of the URFU is mentioned in the report “Russian MBA and business-education market in 2019” conducted by “RosBusinessConsulting” (RBC). It includes experts’ interviews, ratings of business schools, analysis of trends and market dynamics, prognosis etc. [18]. Apart the Business School of the URFU, several business schools from other regions are also mentioned, but schools from Moscow and St. Petersburg prevail.

The Ural State University of Economics (USUE), which is the unique regional university in Ekaterinburg and Sverdlovsk oblast majoring in economics and management, has offered MBA programs [19], but currently they need resuming—and reloading. The university has close connections with industrial and commercial enterprises of the region. A lot of alumni with great managerial experience can share their skills and knowledge with managers who only have a little experience in the field and want to foster their skills. What is especially important, the focus on regional economy, the knowledge about its specific features could give insights to managers whose companies operate in the region and strive to expand beyond it.

One of the ways to restart these programs is to cooperate with foreign business schools which have recognized positions, including accreditation and ratings. Successful joint MBA programs with partners are common in the MBA market. Different Internet portals that aggregate data about business schools, MBA students and people looking for MBA degrees mention such programs. For example, the portal “MBA today” displays 66 MBA programs in Russia [13], some of them provide foreign business schools (e.g. Kingston Business School, Antwerp Management School, Stockholm School of Economics) while others are offered by foreign business schools in partnership with Russian institutions (e.g. Grenoble Ecole de Management in partnership with the Institute of Business Studies/RANEPA in Moscow; Moscow School of Social and Economic Sciences in cooperation with Kingston Business School). Some of the content can be taught in English and some in Russian. The percentage differs.

4 Discussion and conclusion

So, as we can assume, partnerships only facilitate the promotion of business education and improve its quality: teachers represent different mentalities and approaches delivering unique content and enriching students’ pool of skills and competencies. Besides, such collaboration can give rise to unique implementation formats of curricular.

More and more different technological tools are used to achieve educational results. Nowadays there are blended programs with live and not live sessions; MOOCs (Massive Open Online Courses) with different combinations of synchronous and asynchronous components including virtual classes, using of different e-learning platforms, applications, digital assessment tools etc. These options enable and facilitate partnerships in terms of MBA programs worldwide.

Some educators emphasize that creating engagement is the most important value while getting online education. To foster the engagement they suggest thorough cooperation between faculty staff and IT specialists to combine different educational components in compliance with teaching objectives. Of course, engagement is easier to create on campus where people can communicate in person. Still, even within classical learning digital technologies can increase the engagement of programs’ participants. For example, in terms of Agile Project Management, where regular team meetings should review progress of a single development phase (or sprint) [20], online meetings are easier to arrange.

All the variety of up-to-date teaching methods and educational technologies are available and used in MBA programs. Educational institutions are interested in cooperation, finding new partners and expanding their market shares. Apart the websites of business

schools, special Internet platforms promote MBA programs. They enable people seeking for business education to make the right choice providing them with a lot of information about existing programs and other things related to business education [e.g. 21, 15].

In the situation of the competition, the role of MBA programs with the regional focus shouldn't be underestimated. MBA programs are designed for people who already have managerial experience and want to improve their skills in order to lead the companies, organizations and teams to success. Such leaders can be especially significant for the sustainable regional development.

The cooperation with recognized foreign business schools could enable regional universities of economics, e. g. the USUE in Sverdlovsk oblast, to create valuable and attractive MBA programs for students with leading potential within the region as well as for Russian and international students seeking for qualitative business education and interested in sustainable developing of their regional economies

References

1. Association to Advance Collegiate Schools of Business, The International (2001, Winter). Number of undergraduate and master's degrees awarded is on the upswing; doctoral degrees decline. DOI: <http://www.aacsb.edu/publications/printnewsline/NL2001/wnadvocacy.asp>
2. Hartman, L.P., Werhane, P.H. A Modular Approach to Business Ethics Integration: At the Intersection of the Stand-Alone and the Integrated Approaches. *J Bus Ethics* **90**, 295 (2009). <https://doi.org/10.1007/s10551-010-0427-z>
3. Fornes, G., Monfort, A., Ilie, C., Koo, C.K., Cardoza, G. Ethics, Responsibility, and Sustainability in MBAs. Understanding the Motivations for the Incorporation of ERS in Less Traditional Markets Sustainability (Switzerland), **11 (24)**. (2019) DOI: 10.3390/su11247060
4. C. C. Cotton, J. F. McKenna, S. van Auken, & R. A. Yeider. Mission orientations and deans' perceptions: Implications for the new AACSB accreditation standards. *Journal of Organizational Change Management*, **6 (1)**, 17 (1993)
5. A. Renouard, *Histoire de l'École supérieure de commerce de Paris*. Paris: Raymond Castell editions 316 (1999)
6. C. A. Daniel, *MBA: The first century*. Cranbury, NJ: Associated University Presses 330 (1998)
7. S. A. Sass, *The pragmatic imagination. A history of the Wharton School 1881-1981*. University of Pennsylvania Press, Philadelphia 351 (1982)
8. Tuck School of Business at Dartmouth. History. DOI: <https://www.tuck.dartmouth.edu/about/facts-and-figures/history>
9. A. A. Djalali. Didactic perspective on leadership education – focusing on the development of competencies within MBA programs. Steinbeis-Edition, Stuttgart 234 (2017)
10. R. A. Gordon, J. E. Howell. *Higher education for business*. Columbia University Press, New York, 492 (1959)
11. Association to Advanced Collegiate Schools of Business (AACSB). DOI: <https://www.aacsb.edu/about/who-we-are/timeline>
12. AACSB Career Connection. DOI: <https://careerconnection.aacsb.edu/>
13. MBA today. DOI: <https://www.mba.today/>; <https://www.mba.today/guide/triple-accreditation-business-schools/>; <https://www.mba.today/program-search?search-program=all&search-country=Russia>
14. National Accreditation Council of Business and Management Education in Russia. Mission, goals and objectives. DOI: <https://nasdobr.ru/nasdobr/goals>

15. MBA in Moscow and Russia. DOI: https://www.mba.su/shkoly_s_rossijskoj_akkredit;
https://www.mba.su/narodnyj_rating_bschoools_2020; <http://www.mba.su/popularity>
16. Business and Finance. MBA market in Russia continued its growth at the account of the online segment, 19.07.2019. DOI: <https://ria-news.ru/economics/rynok-mba-v-rossii-prodolzhil-rost-za-schet>
17. Ural-Siberian Institute of Business (USIB). DOI: <https://usib.ru>
18. Russian MBA and Business Education Market in 2019. Experts' interviews, main trends, dynamics of the market, prognosis of the market development, recognizability of business schools, ratings. DOI: <file:///C:/Users/User/PrintHood/Downloads/62521-rynok-mba-i-biznes-obrazovaniia-rossii-2019.pdf>
19. MBA business school of the USUE. DOI: <http://mba.usue.ru>
20. Association for Project Management. What is agile project management? DOI: <https://www.apm.org.uk/resources/find-a-resource/agile-project-management>
21. Poets&Quants. Website of higher education content. DOI: <https://poetsandquants.com/online-mba-hub> in the USA

Modeling cognitive learning spaces in Russian universities in the context of globalization and digitalization

Tatiana Tregubova^{1*}, Irina Ainoutdinova²

¹Institute of Pedagogy, Psychology and Social Problems, 420039, Isaeva str., 12, Kazan, Russia

²Kazan (Volga region) Federal University, 420008, Kremlevskaya, str., 18, Kazan, Russia

Abstract. The article is devoted to the modeling cognitive learning spaces in Russian universities for the effective training of students and their preparation for life and future profession. Based on a comparative analysis of theoretical and practical approaches to the problem by Russian and foreign scientists, a conclusion is made about the importance and relevance of the topic for academic community and society as a whole. In modern conditions, the processes of globalization, integration, informatization and digitalization induce universities to change the vector of their activities in the direction of technology and innovation, advanced forms of communication and mental interaction, technological methods of teaching and knowledge transfer, and, as a result, cause them to review their learning spaces as well. From a pedagogical perspective, the design of cognitive learning spaces may equally influence the entire educational landscape of the country as well as the learning climate of a particular institution, learning outcomes of a particular student and the system of professional development of a particular teacher and/ or researcher in multiple ways. The purpose of this work is to study and analyze the current state of the problem, systematize and concretize the conceptual apparatus, identify current positive trends in higher education allowing to model and design the effective tech-based, information-rich and equitable cognitive learning space at university, which will provide a beneficial learning environment with regard to mental needs and expectations of modern students.

1 Introduction

Today, the search for optimal models of cognitive learning spaces of universities correlates with the need of society for the development of innovative education, oriented towards the future and based on the training of competitive specialists and the development of citizens who are harmonious in their professional, intellectual, cultural and moral sense. When modeling and organizing learning spaces, universities should take into account not only the

*Corresponding author: tmreg@mail.ru

challenges of our time, but also the historical stages, entire set of acquired experience and most common patterns of social development of the country. In this regard, it is necessary to find a compromise between the well-established traditions of fundamental university education and the emerging trends associated with Russia's entry into the global educational environment along with the ongoing processes of globalization, integration, informatization and digitalization, which have a deep impact on many internal processes [1, 2, 3].

As experience shows, the concepts of "educational space" and "educational environment" are used quite often and interchangeably for interpretation of various formal characteristics of effective teaching and learning processes, namely the characteristics of teachers and students; teaching and learning objectives; teaching strategies and activities supporting learning; assessment strategies that stimulate and measure learning outcomes; cultural context that directly affects teaching and learning, etc. [3]. In the scientific and educational literature, these terms are widely used both to characterize the diverse physical locations, contexts and cultures in which students learn, and to refer to individual learning settings that can be equally attributed to the physical place in which teaching and learning occurs as well as to the learning needs and learning styles of modern Gen Z students [4].

For example, the global educational space or environment – unites the national educational systems of different countries, varying in the types of structure and level of development [5]. These educational systems differ significantly in their historical, philosophical and cultural origins and traditions, the level of goals, objectives, methods and technologies of teaching, as well as in the variety of approaches to assessing quality and in difference of responses to the challenges of the time, including latest trends in education. UNESCO, as the United Nations specialized agency for education, science and culture, carries out organizational and legal regulation of the development of the global educational space, taking into account the need to preserve the diversity and identity of each subject [6]. It develops international legal acts and standards, both global and regional, for all countries in order to promote flexibility, openness and access to resources in any remote corner. In particular, UNESCO prepared standards for the competences of teachers in the use of ICT (Information Communication Technologies) [7], and formulated five core competencies for the personal growth of each individual, including political, social, intercultural and communicative competencies, as well as those associated with the emergence of the information society allowing to realize the ability and desire to learn and develop [8], etc.

Likewise, the so called European Higher Education Area (EHEA) unites the educational systems of different countries. The joint educational environment is a unique international project based on collaboration in higher education and the result of the political will of 49 European countries with different political, cultural and academic traditions. EHEA was created and became a reality in March 2010, during the Budapest-Vienna Ministerial Conference as an integral part of the Bologna Process, which in its turn was launched in 1999, Russia having joined it as early as in 2003 [9]. EHEA implements a common set of commitments (structural reforms and shared tools) and promotes common key values, such as freedom of expression, autonomy for institutions, independent student unions, academic freedom, free movement of students and staff. Gradually, over the past twenty years, EHEA has done much to create and develop a truly effective area that provides more comparable, compatible and coherent systems of quality higher education throughout Europe [10].

A single educational space or environment of Russia represents the entire set of educational institutions of various types on the territory of the Russian Federation as well as stakeholders. The area also encompasses all public and state organizations interacting with institutions and stakeholders, as well as the teaching and learning processes themselves being regulated by the Federal Law "On Education" (N 273-FL of 12.21.2012) and other regulatory documents designed to provide variability albeit a common structure of curricula and content of educational programs based on the federal educational standards [6]. Here

we can single out the regional educational space or environment, which is geographically localized within the boundaries of one of 85 constituent entities of the Russian Federation (republics, territories, regions, cities of federal significance, autonomous regions and autonomous districts). These areas can partially function within the framework of their regional laws and regulations, but at the same time, they shall comply with the standards, laws and mechanisms proposed by the unified educational space or environment of Russia.

When we think about learning spaces, we often imagine educational institution and its physical settings as a place in which teaching and learning occur. The term in this respect is commonly used as a more definitive alternative to "classroom," though it may also refer to some indoor or outdoor locations, either actual or virtual. We have to admit that the definition of learning spaces has become broader and much more inclusive over the past decades [3; 11]. The current processes of globalization, integration, informatization and digitalization have changed our perception of many axiologies (values), meanings and ontologies (ways of being) [12] and led to the need to rethink old ideas about learning spaces. Likewise, the entirely different "digital generation Z" students are also inspiring new concepts of learning spaces. Through the use of information technology (IT) and appropriate adaptive methods, techniques and resources, today's learning spaces have the potential to serve a new learning paradigm while meeting the mental needs and digital expectations of learners who have grown up using computers and other networked devices. Thus, the learning space of a particular institution should be a multi-component, multi-level and multimodal system. It will include not only a separate institution such as a school, university, or research center with the administrative department, teaching staff, furniture, equipment, aids and resources, etc. But it should reflect specific set of goals, objectives and conditions for successful teaching and learning, thus encouraging learners to think more deeply and independently, to model their own unique learning paths for optimal learning outcomes, to engage into the active transfer and acquisition of knowledge, which will enable them to create new connections, interactions, meanings and understandings [11; 13].

In this respect, the learning space of an individual should also be noted. In addition to the space or environment covering learning demands, it will also include real life experience, personal or private space and individual personal characteristics and habits [14]. Together, they are aimed at meeting a person's needs for social, intellectual (cognitive), cultural and moral development, deepening and expanding the learning needs and styles aimed at improving professional qualifications, communication skills, social status, etc. [15].

Summarizing the above said, we can assume that the concepts of "learning space" and "learning environment" can be understood in terms of completely different approaches, objects and subjects of educational reality, although together they represent a structured hierarchical system in all the variety of its properties and characteristics (openness, humanism, availability, accessibility, flexibility, sustainability, innovation, technology, etc.); current conditions and world order (globalization, integration, informatization, digitalization, standardization, society's demand for new professions and professionals, the consequent need to improve the quality of higher education, individual and social diversity, etc.); functions (training, upbringing, education, development, communication, etc.); levels (global, European, national, regional, institutional and individual) and directions (vectors or strategies) of activity (normative, perspective, active, communicative, informative, etc.) [6].

For the purposes of our research, we examined best models of cognitive learning spaces specially designed to meet the mental needs and digital expectations of university students. We regarded cognitive learning as an active, constructive and long-term process aimed to help students explore and understand how ideas are retrieved and connected in order to deeply process information, transfer and apply it to new situations and relevant contexts [1].

2 Methods

The methodological framework of this research work rests on the set of social, pedagogical, integrative, competence and comparative approaches, covering all aspects of both teachers' and students' academic activities, including the process of professional training in the context of globalization, integration, informatization and digitalization [1-6, 9]. To determine how internal and external factors can influence the mental processes of individual students and beneficially complement their active learning practice, we based our research on some recognized cognitive learning theories. The theory of cognitive development by Jean Piaget [16] recognized the huge role of the external environment, which can influence the internal cognitive structure of people. His theory focused not only on examining how people acquire knowledge, but also on understanding the nature of their intelligence and stages of their mental (cognitive) development [16]. Several researchers have made significant contributions to this theory. For example, the American psychologist Jerome Bruner [17] focused on how mental processes are linked to teaching and learning.

The other approach that deserves attention is based on the social cognitive theory (SCT), which started as the social learning theory (SLT) proposed in the 1960s by Albert Bandura [18]. The theory states that individual behavior is influenced by social interactions, the experiences of others, and the mass media. It helps to generally understand how people are influenced by external factors and how their internal state may affect the environment. One of the major components of SCT is observational learning, which offers both positive and negative modes of behaviors that will accordingly influence the behavior of the observer. The SCT is composed of four processes of goal realization: *self-observation* (based on regularity and proximity); *self-evaluation* (affected by standards and importance of the goals); *self-reaction* (prompted by both positive and negative progress); and *self-efficacy* (supported by the belief or the likelihood of goal completion). These components are interrelated and all have an effect on learning motivation and goal attainment [19].

Another theory of interest is cognitive behavioral theory (CBT) that describes how people's perceptions, thoughts, external factors or situations influence their emotional, behavioral and often physiological reactions. This theory was pioneered by the American psychiatrist Dr. Aaron T. Beck in the 1960s [20]. This approach mainly refers to the mental processes of a person, such as the thoughts and interpretations of life events; so, it focuses on the internal processes of learning rather than on the observed behavior in the learning settings. Sociocultural theory by Lev Vygotsky [21], on the contrary, asserts that learning is based on interaction with other people and, therefore, individual higher-order functions can only develop in appropriate cultural context. Vygotsky's concept of a zone of proximal development is also important since teachers can use it as a guide for student achievement.

The latest information processing theory (IPT) by Richard Hall is based on the idea that humans actively process any information like a computer [22]. This tech-based approach reveals the gradual stages in information processing by individuals, namely, *encoding* (collecting and representing information); *storage* (holding necessary information); *retrieval* (obtaining information when needed); and *a management/control process* that defines how, when and for what purpose the acquired information will flow through a separate system.

In order to identify best teaching strategies that may be used to improve learners' ability to process information deeply and meaningfully we studied the unique characteristics of modern students often attributed to "digital generation Z" [23]. Various types of cognitive learning patterns have been examined with due diligence too. We identified about 15 applicable practices that are already quite popular with innovative teachers, e.g., associative, discovery, experiential, observation or imitation learning, metacognitive strategies, etc. [24]. Multiple cognitive tools and educational technologies that help students learn and think deeply have been tested for their applicability, availability, and safety during the research.

3 Results and discussions

The main result of the research is the development of a model of an efficient, technology-based, information-rich, and equitable university space based on the active, constructive and long-term paradigm of teaching and learning, aimed, on the one hand, to help teachers realize their professional potential and, on the other hand, to provide students the opportunity to learn and understand how to maximize their cognitive capabilities [25]. The outdated patterns of rote memorization of facts can hardly help students understand how to use information they have learned and apply it to new situations. It is evident that acquiring information without giving it a deeper meaning and understanding, makes learning process practically useless and its outcomes worthless [22]. Cognitive learning strategies, on the contrary, allow learners to form and develop their ability to process various chunks of information deeply, transfer, exchange and apply them to new situations meaningfully [22].

Cognitive learning strategies may equally be used in traditional (face-to-face) format as well as in distance and online educational settings [1, 2]. Let us look at the traditional learning space of university as one of the types of institutions of higher education in Russia (along with the institutes and academies). A university, by definition, is an educational institution that implements educational programs of higher education at all levels (from bachelor's to master degrees) in a wide set of knowledge areas (specialties), as well as it provides programs for post-graduate students, retraining and advanced training programs for highly qualified scientific and pedagogical staff. As a rule, in Russia the university also carries out fundamental and applied scientific research in a wide range of sciences and is regarded the leading scientific and methodological center in its field of activity. Many universities operate as educational, scientific and practice-oriented centers. By structure, universities may unite under their roof several institutes or faculties, which represent the totality of various disciplines that create the basis of fundamental scientific knowledge [13].

Based on the definition of university as of the institution of higher education and its traditional learning space, it can be concluded that the learning space of university includes many spaces with different vectors of activity that physically locate in different structural divisions. In reality, university is also a part of a wider social space of a city, region or country, which operates as an open educational continuum in all the diversity and integrity of external and internal factors [26]. The integrity of the space is supported by various institutional, functional, procedural and subject-matter processes that manifest themselves at all its levels and in various settings. The continuity of educational process can be traced outside the university premises, where the traditions of life long and cognitive learning are implemented by highly qualified and motivated specialists – the university graduates [6].

No wonder why we have chosen university grounds to model cognitive learning space for the effective training of students and their preparation for life and future profession [1]. In our vision, such space should be a multi-dimensional, interdisciplinary and multilingual educational area based *inter alia* on the inclusion of native languages and one or more foreign languages studied by students (English, German, French, Spanish, etc.) [1, 3]. This model should function in the interconnection and complementarities of all its components that traditionally exist in the educational settings of university. Cognitive learning space must also be organized in accordance with the changing mental needs and learning styles of today's "digital" students, based on their preferences and capabilities [23]. Teachers should encourage their students to engage in active learning, embrace the learning process, make their own learning paths and form their own connections, meaning and understandings in any discipline as a multitude of axiologies (values) and ontologies (ways of being) [12].

Teachers must support incorporation of a cognitive learning perspective into educational settings as a companion to the course delivery thus giving students a framework of learning strategies and allowing acquisition of knowledge and skills through cognitive process [12]. The main goal of learning strategies is to get students to become learners that are more effective. Research on the topic has shown us plenty of different ways to do that. But the

three most famous cognitive learning strategies are *mnemonic* – help students memorize content, like facts or terms; *structural* – encourage students to mentally pick out important information and put it together into one structure; and *generative* – help students to incorporate new content into existing knowledge and reach a deeper understanding) [26, 27].

To optimize active learning practice and enhance its positive impact on university-level learners, teachers can choose from a variety of active pedagogical methods that involve students to actively work on learning tasks and reflect on their work, apart from simply listening, watching or taking notes. For these purposes, teachers may also specially design Active Learning Classrooms (ALCs) marked by deliberate architectural or design attributes that are specifically intended to promote active learning. In particular, ALCs shall be equipped with moveable furniture, plentiful of writing surfaces or technological tools [25]. In addition, as most resources used in higher education become digital, delivered over the Internet, and the network connection becomes more portable, these two developments make it possible for learning to happen informally in areas outside the traditional classroom [25].

4 Conclusions

1. The idea to model a cognitive learning space in Russian university has been caused by several factors. The current processes of globalization, integration, informatization and digitalization induce universities to change the vector of their activities in the direction of technology and innovation, advanced forms of communication and mental interaction, technological methods of teaching and knowledge transfer, and, as a result, cause them to review their learning spaces as well. The authors of the article, as university professors, certainly support new pedagogical trends or innovations if they are able to provide effective training of students, their preparation and development for life and future profession [1, 6].

2. Based on a comparative analysis of theoretical and practical approaches to the problem of cognitive learning by Russian and foreign scientists, a conclusion is made about the importance and relevance of the topic for academic community and society as a whole [19].

3. Cognitive learning is defined as a type of learning that involves active, constructive, and long-term process aimed to engage students in the active learning settings and help them explore and understand how ideas are retrieved and connected in order to deeply process information, transfer and apply it to new situations within the relevant contexts [12].

4. From a pedagogical point of view, the design of an effective cognitive learning space should be based on certain cognitive learning components, namely, *comprehension* – which allows students to understand the reason or "why" behind a specific topic and how it fits into a larger knowledge; *memory* – which enables a deep understanding of a subject that, in its turn, improves students' ability to relate new knowledge with previous experiences or information; *application* – which helps to apply new information or skills in life situations, reflect on what has been studied and continue to develop problem-solving skills [21, 26].

5. A cognitive learning space that allows applying cognition to certain learning activities should be modeled in accordance with the key principles of cognitive learning. First, focus on what you know, rather than on the responses to stimuli. Second, emphasize order, structure and connections. Third, use active approaches, plans and profitability [9, 11, 16].

6. The analysis and application of some types of cognitive learning methods and techniques (cooperative, collaborative, meaningful, associative, discovery learning, etc.) and cognitive tools (databases, semantic networks, expert systems, communications software, on-line collaborative knowledge construction environments, multimedia construction software, etc.) led us to conclusion about the evident benefits of cognitive

learning for educational systems of the world, Europe, country, region, particular institution or a stakeholder [9,10].

7. A well-organized learning space based on a cognitive approach can be equally beneficial for the entire educational landscape of a region or country, for the climate of a particular institution, for achievements and development of a particular student or a particular teacher and/ or researcher. Cognitive learning improves comprehension; it develops problem-solving and study skills; it promotes long-term learning; it sets enthusiasm and improves confidence; and, last and most important, it develops a lifelong love for learning [6, 13, 14].

Modeling and design of the effective tech-based, information-rich and equitable cognitive learning space at university was provided with regard to mental needs and expectations of modern students attributed to "digital generation Z". The proposed structure is only a design model presented by the authors. This form of organization of the learning spaces seems timely and may serve as a start-up for training of students at university level.

References

1. I.N. Ainoutdinova, T.M. Tregubova, A.N. Khuziakhmetov, MJLTM, **7**, **9/2**, 431–444, (2017)
2. M. Warschauer, Learning Inquiry, **1**, **1**, 41–49 (2007)
3. M.B. Brown, J.K. Lippincott, Educause Quarterly, **26**, **1**, 14-16 (2003)
4. R. Maloy, CITE, **16**, **2**, 172–183 (2016)
5. E. King, M. Joy, J. Foss, J. Sinclair, J. Sitthiworachart, IETI, **52**, **5**, 522–535 (2015)
6. R. Kh. Gilmeeva, A. R. Kamaleeva, A. S. Katz, E. Y. Levina, and all. Cognitive pedagogy: teaching aid, 228 (2020).
7. UNESCO *ICT Competency Framework for Teachers – ICT CFT* (2011)
8. UNESCO *1999-2000 Report* (1999)
9. B. Eickelmann, M. Vennemann, EERJ, **16**, **6**, 733–761 (2017)
10. N. Sampson, LLT, **7**, **3**, 103–118 (2003)
11. D. G. Oblinger, *Learning Spaces*, Educause, 444 (2006)
12. D. Cormier, Innovate: IJOE, **4**, **5**, 1–6 (2008)
13. N.D. Koletvinova, S.U. Bichurina, IEJME, **11**, **4**, 829–841 (2016).
14. M.G. Navarro, ATPP, **32**, **1**, 40–47 (2011)
15. J.D. Wake, O. Dysthe, S. Mjelstad, ET&S, **10**, **1**, 40–51 (2007)
16. B. Ojose, TME, **18**, **1**, 26–30 (2008)
17. J. S. Bruner, Journal of Child Language, **2**, 1–19 (1975)
18. A. Bandura, C. Barbaranelli, Child Development, **67**, **3**, 1206–1222 (1996)
19. M.Ul Hassan, R. Ali Akbar, NUML, **7**, **2**, 58–68 (2019)
20. A.T. Beck, Perspect. Psychol. Sci, **14**, **1**, 16–20 (2019)
21. S. Marginson, T. K. A. Dang, Asia Pacific Journal of Education, **37**, **1**, 1–14 (2016)
22. A. Acquah, E. Quainoo Jr., JIEA, **7**, **7**, 1–4 (2017)
23. D. Villa, J. Dorsey, *Research by CGK*, Austin, Texas, USA, 30 (2017)
24. K.E. Kariippanon, D.P. Cliff, A.D. Okely, A.M. Parrish, J Sci Med Sport, **22**, **8** (2019)
25. R. Talbert, A. Mor-Avi, Heliyon, **5**, **12** (2019)
26. A. Đukić, *Keeping up with technologies to create the cognitive city*, 378 (2019)
27. D. L. Dinsmore, L.K. Fryer, PIBBS, **6**, **2**, 107–114 (2019)

Multiple-choice questions and essays in assessing economics

Svetlana Vlazneva*, Olga Androsova

Penza State University, 440026, 40 Krasnaya Street, Penza, Russia

Abstract. The article is devoted to assessment tools in teaching economics. The authors distinguish and define four levels of understanding economics: elementary, intermediate, systemic and creative. They describe multiple choice questions and essay questions as two possible assessment tools in teaching economics. Multiple-choice questions are represented as the most popular testing format. The advantages of multiple-choice questions include low grading costs, perceived objectivity and availability of comparative analysis. The authors have developed multiple-choice tests, which measure students' knowledge at three first levels of understanding economics. They enable instructors to see where exactly the students' understanding has stopped and provide guidance. The authors conclude that multiple-choice questions can be used to measure the basic levels of students' understanding economics. In measuring higher levels the essay as an assessment tool has a great potential. The authors highlight the advantages and pitfalls of essay testing in economics.

1 Introduction

In today's world, there are more and more requirements for the content of education, forms of its implementation, pedagogical technologies and teaching methods, as well as for modern means of evaluating learning outcomes. All classifications of teaching methods involve testing students' knowledge, evaluating their activities and correcting them if necessary.

Assessment is one of the most relevant issues, both in pedagogical theory and in pedagogical practice. The teaching of economics requires of the instructor choosing the assessment tools that could measure the level of students' understanding. The results of the assessment provide the teacher with feedback, they also help to plan, adjust and improve the teaching and achieve the learning outcomes.

The purpose of the study is to distinguish and define the levels of economic training and to develop assessment tools taking into account the proposed levels.

*Corresponding author: vlaznevas@mail.ru

2 Literature review

The need for standardised procedures for objective measurement of students' educational achievements is stressed in the studies of V. Avanesov [1], V. Zvonnikov, M. Chelyshkova [2], O. Katurzhevskaya [3] et al. Special aspects of the assessment materials development, as well as methods and tools for evaluating students' learning outcomes are described in the works of Ye. Alegushina, M. Prokhorova [4], O. Abramova, M. Gladkova, O. Vaganova [5] et al.

Assessment in teaching economics is based on the achievements of pedagogical science and takes into account the features of the subject. In research of W. Walstad and W. Becker [6], W. Walstad [7; 8], N. Chan and P. Kennedy [9], P. Kennedy and W. Walstad [10] the advantages and disadvantages of various assessment tools used in economics are considered.

Researchers apply various taxonomies to assess students' understanding. For example, Santos and Lavin have used a two-level system to categorize economic understanding: deep learning and surface learning. They define deep learning as not only a command of the subject matter but also an ability to think independently; to determine necessary information; to provide a persuasive substantiation of claims; to organize thoughts clearly; and to use precise, correct, and effective language [11].

Some researchers, for example, S. Buckles and J. Sigfrid use B. Bloom's cognitive taxonomy, which identifies six cognitive levels of thinking. Knowledge questions test whether a student can select the best definition of a given economic term or concept. Comprehension questions ask students to explain the reasoning behind an economic concept or principle. Application questions ask students to identify economic concepts needed to solve a particular problem, to distinguish between correct and incorrect application of economic concepts. Analysis questions are aimed at students' linking essential economic concepts and principles and identifying causal steps underlying economic events. Synthesis is an ability to produce something original based on one's experience and understanding. Evaluation is making a recommendation or justification based on a specified set of criteria [12]. The above-mentioned researchers also consider that in-depth understanding includes three types of skills: an ability to identify economic concepts; an ability to apply concepts and an ability to link logically.

3 Assessment in teaching economics

We think that assessment can be carried out on different levels. We distinguish four levels of understanding economics: elementary, intermediate, systemic and creative.

The elementary level is determined by the student's knowledge of economic concepts, definitions, facts, laws and classifications. This amount of economic knowledge is manifested in the student's ability to reproduce economic concepts, definitions, facts, laws and classifications.

The intermediate level of economic proficiency requires knowledge of formulas, rules and functional dependencies. It is reflected in the student's ability to apply formulas in practice, build graphs, tables, schemes and diagrams.

The systemic level indicates the student's understanding of cause-and-effect relations between economic phenomena and processes, knowledge of alternative points of view on solving economic problems and hands-on examples of real economic processes. This body of economic knowledge is expressed in students' ability to use their analytical skills in building cause-and-effect relations between economic phenomena and processes, to draw conclusions in various socio-economic situations, as well as to formulate their answers correctly.

The creative level is accessible mainly to students who are fluent in educational material and know additional information about the subject under study. This level of economic knowledge implies the students' ability to form their own opinion on the most relevant and controversial economic issues. The student's amount of economic knowledge allows him or her to learn how to find original ways out of non-standard economic problems, to offer solutions to problematic situations and to forecast the development of economic phenomena and processes.

Most classes in economics use both multiple-choice questions and essays as assessment tools. Multiple-choice questions are used frequently in large introductory economics courses. W. Becker and M. Watts reported that, on average, about 45 percent of the grade in a typical introductory course is based on multiple-choice questions [13].

Multiple-choice questions are the most popular testing format in economics. They are useful as a diagnostic tool since students' wrong answers can indicate misunderstanding. They allow a large class and a lot of material to be tested in a short time and they are easy and quick to grade. Multiple-choice questions have several disadvantages. It is difficult and time-consuming to construct effective distracters. Sometimes they encourage students to find the answer by eliminating or guessing. Multiple-choice questions can measure some levels of students' understanding but they cannot assess higher levels of cognition. W. Walstad underlines that multiple-choice items do a reasonably good job of testing for students' understanding at the knowledge and comprehension levels because they provide a reliable and efficient way to measure understanding. But they can also be used to measure simple achievement related to application and analysis. S. Buckles and J. Siegfried argue that multiple-choice questions can be used to test students' achievement up through Bloom's level four, analysis.

To assess students' knowledge of different topics we have developed multiple-choice tests, each consisting of 45 items and measuring knowledge at three levels (elementary, intermediate and systemic).

The following set of questions illustrates how a series of questions on different topics can be used to assess a student's level of understanding.

Example 1. Topic "Elasticity and its application".

1. *The price elasticity of demand can be defined as:*

- a) *the percentage change in quantity demanded in response to one percent change in price;*
- b) *the percentage change in price in response to one percent change in quantity demanded;*
- c) *the change in quantity demanded in response to change in price;*
- d) *the change in price in response to change in quantity demanded.*

The first question asks students merely to define elasticity. It makes students recognize a definition and measures the elementary level.

2. *The price elasticity of demand is higher if:*

- a) *the product has more substitutes;*
- b) *the product takes a smaller share in the consumer's expenses;*
- c) *the product is new;*
- d) *the product is more important for the consumer.*

Giving an answer to this question students demonstrate that they know the factors that affect price elasticity of demand and understand the dependence of elasticity on a specific factor.

3. *Due to the drought, the production and supply of coffee decreased, but the total revenue of coffee producers increased. This can be explained by:*

- a) *the demand for coffee is elastic;*
- b) *the demand for coffee is inelastic;*

c) the coffee supply is inelastic;

d) the coffee supply is elastic.

This question requires not only knowledge of the factors influencing the supply, but also an understanding of the relationship between elasticity and total revenue. When answering, it is necessary to understand that with a decrease in supply, the price will increase, while the total revenue of producers will also increase. This situation is possible if the demand for the product is inelastic. The question requires a deeper understanding of the information studied. Because this question requires a number of logical steps, it may test systemic level.

Example 2. Topic “The costs of production”.

1. If output increases in the short-run, average fixed cost:

a) stays constant;

b) increases;

c) decreases;

d) increases or decreases.

The first question asks students merely to define the average fixed cost. It makes students recognize a graph illustration.

2. If marginal cost of production increases, average variable cost:

a) increases;

b) decreases;

c) stays constant;

d) increases or decreases.

Giving an answer to this question students demonstrate that they understand the relationship between curves. When marginal cost (MC) increases, average variable cost (AVC) can be either increase or decrease. Marginal cost begins increasing, but average variable cost decreases, it happens because MC is below AVC and pulls AVC down. Then MC cuts through the minimum point of AVC, and AVC begins to rise because MC is above it.

3. The firm is in the short-run, the labor is the only variable input to the production process and it is purchased in a competitive market at a constant market price. With a small increase in output marginal costs increases. In this case:

a) average product of labor increases;

b) marginal product of labor decreases;

c) average variable cost decreases;

d) average total cost increases.

Answering this question, students need not only to have an idea of the graph illustration of average and marginal cost, average and marginal product. It is also important to understand the relationship between marginal cost and average and marginal product of a variable input. At a fixed wage rate, there is a strictly inverse relationship between marginal cost and marginal product of labor. The maximum of marginal labor productivity coincides with the minimum of marginal costs. Consequently, as marginal cost increases, the marginal product of labor begins to decrease.

A series of questions assessing first the elementary, then the intermediate and finally the systemic levels may enable instructors to see where exactly the students’ understanding has stopped and provide guidance as to what to emphasize in review. The results obtained allow the instructor to adjust and improve the teaching and achieve the learning outcomes.

To decrease the process of elimination or guessing the correct answer, students may be asked to choose the correct option and then to explain why each incorrect answer is wrong. One additional use of multiple-choice questions is to distinguish distracters that are correct all the time and that are correct under some circumstances from those that are never correct.

Multiple-choice questions can be constructed with distracters aimed at students who cannot apply an appropriate concept or who miss some logical steps. The results obtained can be used to identify the most common misunderstandings. An example is the following:

If nominal GDP grew by 6% and real GDP grew by 2% over the year, the rate of inflation is:

- a) 3%;
- b) 3,9%;
- c) 6%;
- d) 12%.

If students do not apply the concept of GDP deflator properly or miss particular steps, they often choose the first or the last option, which are not correct.

Multiple-choice questions give the teacher information about correct and incorrect answers but they do not say anything about students' confidence. We are not sure whether a student with high score was confident or had low confidence in chosen options. J. Bruno [14] used multiple-choice questions where students were asked to point the degree of confidence in choosing one or more answers. The results of this assessment allow teachers to see whether the students are correct, incorrect in their understanding or have no knowledge.

Multiple-choice questions scoring can be different. Students can be given full credit for the correct answer only and zero credit for an incorrect choice. It is also possible to give students partial credit for an appropriate but incomplete option. Partial credit applying can differentiate students who have the ability to use the concepts from those who are able to give a definition or recognize the necessary concept. But it is time-consuming for the instructor to develop these questions. Partial credit grading should include questions with answers which are correct all the time or correct under some circumstances. For example:

To maximize profit the firm should have the level of output where:

- a) price equals marginal cost;
- b) total cost is minimized;
- c) marginal revenue equals marginal cost;
- d) price equals average total cost.

Any firm wanting to maximize profit should have the output where marginal revenue is equal to marginal cost. The third option will give a student full credit as the correct answer for all market structures. Students may also identify perfect competition as a special case where marginal revenue equals the market price because firms are price takers. So, the first option is correct under perfect competition and might be granted partial credit for an appropriate but incomplete option. The second and the fourth answers are incorrect options.

So, multiple-choice questions can measure some levels of understanding. However, W. Walstad underlines that Bloom's highest levels of understanding, synthesis and evaluation, cannot be accurately measured with multiple-choice questions. S. Buckles and J. Siegfried argue that synthesis and evaluation (Bloom's fifth and sixth levels of understanding) are important additional elements of in-depth understanding and these elements may be more efficiently assessed with essays. An essay question is better for measuring complex achievement related to the application of concepts, analysis and synthesis of problems, or evaluation of decisions. We apply essay questions to test the creative level.

Many economics instructors consider the essay to be one of the easiest methods for testing the depth of economics content understanding. The chief advantage of the essay test is the freedom of response. It means that students have an opportunity to choose, prepare, and present ideas in their own words in response to essay questions. The instructor has an opportunity to see the student making a response and not just selecting the best answer from the options suggested. An essay asks students to select, organize and integrate economics

material to construct a response. . It encourages students to study in a more integrated manner, they are given more opportunities to show creativity and originality. But there are some potential pitfalls of using the essay. One serious problem of the essay is that it may not be a reliable measure of students' achievement. Ease of test construction, which is often considered to be as an advantage, can contribute to the unreliability of essay scores if the questions are stated incorrectly, so answers to such questions may not be accurately graded. For example, "*Describe the ways of state budget deficit financing and the consequences of their application*" is a vague question because this task does not give the student a clear idea of what methods should be considered, what consequences should be characterized, whether it is necessary to conduct a comparative analysis of various options. This example of an essay task leads to responses that have too wide a range of content, or do not contain answers that, in the opinion of the instructor, should have been presented. So, the essay should be constructed correctly to measure higher cognitive levels. W. Walstad underlines, that questions using the following stems are more likely to produce such learning outcomes:

- comparing and contrasting;
 - explaining or anticipating the possible effect;
 - summarizing from a stimulus (for example, a quote, a table, a graph, or a model);
- applying an economic concept or principle;
- analyzing an economic problem;
 - evaluating an economic decision using established criteria or theories.

For example, the above essay task can be written as follows: "*Let's assume that the state budget deficit is financed partly by loans on the domestic market, partly by issuing money and partly by foreign loans. Think about how this might affect interest rate, investment, exchange rate and net export compared to the situation of financing the deficit only with domestic loans*". Doing this task, students understand what ways of financing budget deficit and what consequences they should take into consideration. They are also asked to compare various options. Carefully defining the test outcomes and framing clear questions to measure those outcomes can improve the reliability of the essay as a measure of student achievement.

The time for scoring essays is a second problem, because grading essays requires reading one or more times and writing comments on the responses. It is also difficult to standardize grading because of variability of answers. This work is time-consuming. N. Chan and P. Kennedy underline that essays are more expensive to grade than multiple-choice questions, so highly structured free-response questions may generate incremental costs without commensurate benefits. S. Buckles and J. Siegfried argue that essays give opportunities to observe a student's ability to create a chain of reasoning, a well-constructed multiple-choice question can measure much of the same skill.

The third disadvantage with essays is limited sampling of the domain content. A typical multiple-choice test can include items covering a wide range of content. By contrast, so few questions which are included in an essay may have a limited content coverage.

So essay items require more instructors' time and work, but they are used as an effective and reliable measurement tool for the depth of understanding in economics.

4 Conclusion

Assessment is an integral part of the educational process, allowing both the instructor and the students to track progress in achieving the learning goals. The article considers multiple choice questions and essays as assessment tools. The advantages of good multiple-choice questions include low grading costs, perceived objectivity, and availability of comparative analysis, but sometimes they encourage students to find the correct answer by process of elimination or guessing. Higher levels of students' understanding cannot be accurately

measured using multiple choice questions. Essay questions may be able to assess levels of understanding that are beyond the reach of multiple-choice questions. Essay questions take less effort to create, yet are more costly to grade. However, when choosing an assessment tool, various factors should be taken into account: the expected learning outcomes, the opportunity to cover a wide range of content, the probability of guessing the answer option, the ease of developing tasks and grading results and the ability to assess high levels of understanding.

References

1. V. Zvonnikov, M. Chelyshkova, *Modern means of evaluating learning outcomes*. Academy, Moscow (2013)
2. O. Katurzhevskaya, *Technology of test control in the educational process*. Armavir (2010)
3. E. Aleshugina, M. Prokhorova, *Methods and means of assessing the educational outcomes of university students, Problems of modern pedagogical education* **59**, 13 (2018)
4. N. Abramova, M. Gladkova, O. Vaganova, Features of the development of assessment materials in the conditions of realization of the competence approach, *Problems of modern pedagogical education* **57**, 3 (2017)
5. W. Walstad, W. Becker *Achievement differences on multiple-choice and essay tests in economics, American Economic Review* **84**, 193 (1994)
6. W. Walstad, *Improving assessment in university economics, Journal of economic education* **32**, 281 (2001)
7. W. Walstad, *Testing for depth of understanding in economics using essay questions, Journal of economic education* **37**, 38 (2006)
8. N. Chan, P. Kennedy, *Are multiple-choice exams easier for economics students? A comparison of multiple-choice and "equivalent" constructed-response exam questions, Southern Economic Journal* **68**, 957 (2001)
9. P. Kennedy, W. Walstad, *Combining multiple-choice and constructed-response test scores: An economist's view, Applied Measurement in Education* **10**, 359 (1997)
10. J. Santos, A. Lavin, *Do as I do, not as I say: Assessing outcomes when students think like economists, Journal of Economic Education* **35**, 148 (2004)
11. S. Buckles, J. Siegfried, *Using multiple choice questions to evaluate in-depth learning of economics, Journal of economic education* **37**, 48 (2006)
12. W. Becker, M. Watts, *Teaching methods in the U.S. undergraduate economics courses, Journal of Economic Education* **32**, 269 (2001)
13. J. Bruno, *Using MCW-APM test scoring to evaluate economics curricula, Journal of Economic Education* **20**, 5 (1989)

Perspectives of authentic assessment and professional practice interventions in teaching and learning

M. Royce, J. Jariwala, M. Petzer, J. Turner

Liverpool John Moores University, Liverpool, Great Britain

Abstract. Higher Education is seen as having an expanding responsibility to prepare students for employment. Many of the subject areas taught are linked with particular professions, such as in law, business, engineering and health, and academics may have experience working in the profession before teaching. Professional bodies have input into the curriculum and assessment design, and academic research supports the developing of practice in all areas. This paper draws together and reviews some of the practice and theoretical perspectives of this merging of worlds. The practice elements of the paper reflect work embedded in module development in Liverpool John Moores University in the North West of England. The focus will be situated in the area of authentic assessment and its role within professional practice. The paper will first explore the meaning of professional practice, then use activity theory, in particular boundary crossing, as a framework for a discussion of practice implications.

1 Introduction

The idea of professional practice can be defined and explored in a number of ways. Segon (2014, p.14) takes us back to Flexner 1910 description of the attributes of professional practice:

1. Possess and draw upon a store of knowledge that was more ordinary than complex
2. Secure a theoretical grasp of the phenomenon with which it dealt
3. Apply its theoretical and complex knowledge to the practical solution of human and social problems
4. Strive to add and improve its stock of knowledge
5. Pass on what it knew to novice generations not in a haphazard fashion but deliberately and formally
6. Establish criteria of admission, legitimate practice and proper conduct and
7. Be imbued with altruistic spirit

There is a lot here to unpack, the altruism, the support for the novice, the admission process and the adding the collective understanding. But can it be said that these are still the underlying values since they were defined 110 years ago? What was once seen as quite a static notion of professional practice of skills and knowledge applied to a relatively stable

environment has been disrupted by the increase of technological, economic and social change (Kemmis, 2019; Lester, 1995).

2 Professional practice

In periods of rapid change, decisions on how we teach and the content of that teaching become more complex ? For Lester (1995), there is a central educational dichotomy of to this question; atomistic visions of key skills or grander theories, between a ‘technical rational’ model of logical solution finding and a ‘post-industrial’ acknowledgment of complexity. Lester (1995) argues that this requires professionals to become far more reflective, to embody principles, ethics and morals, it also moves the ownership of description of the practice away from the central body towards the practitioner themselves. Within this paper we will be exploring practice within the Human Resource Management profession and considering the impact of working with the professional body, the Chartered Institute for Personnel and Development (CIPD).

The assessment of competence that delineates the professional from others presents interesting challenges to the more traditional assessment strategies found in Higher Education. Lester (1995) would view application of reflection as an ongoing process as part of the assessment process. The questioning self-action provides a critical connection of theory and practice. Illustrating this, the CIPD advocates the importance of analytics. The ability to understand and interpret human resource (HR) metrics to guide policymaking and people practice is a growing essential requirement for HR practitioners, (CIPD, 2017). The appreciation of metrics enhances problem solving and decision-making faculties associated with demonstrating business acumen, (CIPD, 2018). This narrative lends itself to integrating professional practice to the Higher Education curriculum to prepare students for employment.

Teaching the components of individual key metrics, i.e., staff turnover and sickness absence rate, integrates into the curriculum, in theory but the practice dimension has been largely absent until recently. To resolve this deficiency, a database that would simulate a typical HR staff database was developed by students as part of an extra curriculum project. This database would serve many functions including the appreciation of what and how personal data is organised in workplaces, and the multiple uses not limited to sourcing, establishing patterns, benchmarking, and predicting future people and organisational performance to guide and optimise business sustenance.

Cole et al (2011) explores the cultural gap between the relatively positivistic professional practice and wider theoretical questioning of the academic world. Through the use of real world co-created data, the students are able to identify for themselves the ethical and organisational dilemmas arising from the creation and interpretation of data. They echo Lester’s (1995) model with their call for greater reflexivity or a questioning of assumptions and bias within the professional. Such models of working bring students into the co-creation of the curriculum areas and allow for reflexivity which may challenge both teaching and learning and organisational practice models.

In 2018, George Huh provided the keynote address at LJMU’s Teaching and Learning conference where he shared his concept of Teaching High Impact Practices (HIPs). Discussion and reflection following this address led academic leaders at LJMU to understand that much of their work in the field of business practice is based on promoting deep learning by promoting student engagement. This has been achieved through curriculum design, assessment and facilitation with content co-created by students. In this example the students choose a job role and identify and measure key competencies related to the job. Collectively, they then design an assessment centre using a range of

measurements to make a recruitment decision. The students alternatively play the part of assessors and applicants allowing academics to report on both the knowledge and practical application in designing the measurement tasks but also on the way in which the student responds as an applicant. The feedback from both perspectives allows for a rich reflection on knowledge, skills and behaviours and employability readiness. The structure involves students in design influenced by selection theory. The requirement to put their designs into practice increases the performance expectation, encourages students to earn higher grades and retain, integrate, and transfer information at higher rates. There is potential for professional practice learning and assessment similar to this case example to build on the individuality of student knowledge and experience and accelerate the development of peer and independent learning. The student view of practice based learning was captured in a paper to the LJMU Teaching and Learning Conference in 2019 ‘Student Partners in Designing Professional Content and assessment’. Students reflected on how a blend of HIP based ‘modules’ within a programme enhanced student independence and accelerated the acquisition of skills more usually only learned from employment rather than an academic environment.

To summarise, professional practice is a contested area. Involvement of students in co-creating materials and operating with real world models one where new skills, such as reflection and reflexivity are being promoted alongside theoretical perspectives. In the next section, we will look at authentic assessment and how it might help embed, develop and support these practices?

3 Authentic assessment

Authentic assessment is a summative assessment where the student has a task that mimics a real world task rather than a traditional assessment such as essay or exam. In Villarroel et al’s (2018) review of authentic assessment, thirteen consistent characteristics are identified classified into three conceptual dimensions: realism, cognitive challenge and evaluative judgement. Realism relates to the level by which the assessment mimics problems or activities found in practice and replicating the performance standards expected. Cognitive challenges refer to the high order thinking skills such as creativity, problem-solving, and decision-making. Evaluative judgement means how the student should be involved in creating the criteria by which the performance is judged and be more aware of this in order to self-regulate and improve their behaviour such as through self- assessment and reflection. Authentic assessment can be seen as a challenge to traditional assessment practices within education, which fail to provide methods for students to practice their developing skills and knowledge, with some of the drivers for this assessment comes from external professional and regulatory bodies. A move, which in itself can be seen as a challenge to the professionalism of academic practice, as external bodies take more control. However, we could view authentic assessment as a dialogue or exchange around values and skills within professional practice. The case study example illustrating this can be seen through a CIPD accredited module for final year undergraduate students on the BA HRM programme. The module, named Strategic HR Competencies comprises of a combination of lectures and facilitated role plays where students perform roles leading to the undertaking of a mock Employment Tribunal (ET). In the UK these tribunals hear cases relating to breaches of contract and/or Employment Law. During 2020, single employment tribunals and caseloads increased by 13% and 22% respectively compared to a year ago with 19 000 multiple claims receive in the quarter during July to September 2000. (Gov.uk, 2020). With this significant number of cases, we cannot ignore the importance of this aspect of an HR practitioner’s role. Elements of preparation and final tribunal have previously been “live” but due to COVID restrictions in 2020 the role plays were moved into a filmed environment

using a mix of technologies including Panopto and Zoom. Due consideration is given to individual student levels of confidence and as a result, all tribunal roles are adopted on a voluntary basis. In taking responsibility for differing roles in the case study, students learn to work collaboratively with each other but also independently of direct academic direction. Students make choices about their approach to the problems presented and the consequences of the decisions they make and are assessed on five reflective elements.

The students shape the curriculum. Four fictitious groups; Organisational HR Department; aggrieved individuals seeking redress for a breach; the line managers involved in the decisions which have led to the claim for a breach of policy or employment law and the ET panel members. Each group receives a set of initial notes which differ and reflect their own perspective and version of truth. The groups do not share this information. The practice based role play is supported by knowledge creating short lectures on the legal, policy and theory context relevant to the case. The students then build a role play and respond to information as it emerges from the other groups and the academic leader of the module. The module concludes with a mock trial, which is recorded so that students can use this to reflect on their levels of knowledge, preparation and decision making. The ET panel members collectively decide on a suitable outcome of the case and calculate an award based on legal knowledge gained through lectures. The assessment is reflexive, relates to the work of Cole et al. (2011) evaluation and critique in the following areas: HR competencies in managing conflict; good practice in investigations; justification of organisational and individual actions; preparation for and delivery of tribunal role play and documentation; reflection on organisational process improvement. Student feedback in this practice based module is strong with students reflecting on the extent to which the ability to work with real time changing scenarios helped prepare them for work in their chosen profession.

The evaluation process for professional practice academic delivery and assessment must respond to flexibility in the choices made by the students during the course of the module and student involvement in understanding the multiple layers of complexity inevitably requires academic time and resources. While the students are independent learners for much of the assessment the curation and facilitation of the academic lead requires both professional practice knowledge and skill in integrating the two worlds of academic rigour and clinical business practice.

4 Professional Body Relationship

The CIPD skills and behavioural framework for practitioners is embedded into the academic delivery of modules within an accredited programme such as the BA (Hons) Human Resource Management used in the case examples within this paper. CIPD have emphasised the demonstration of business acumen in HR practitioners and recognises (CIPD, 2018) the importance of integrating professional practice into the Higher Education curriculum to prepare students for employment. The close working relationship between the professional body, CIPD and the academic subject leaders created a partnership with the students evident in the development of materials, delivery and assessment of practitioner work involving data base analysis, assessment of competencies for recruitment and the investigation and decision making involved in the tribunal.

5 Conclusions

Defining professional practice: The defining of the skills, knowledge, values and behaviours are a crossing point. This article has shown a number of different visions from

the academic literature and has provided practice examples but there is more work to be undertaken in developing academic practice informed by professional bodies discourse and definitions. The Business School in LJMU are learning to provide shared spaces where academic theoretical concepts and business practice are explored together. In a world of rapid change it becomes important that this shared space expands and that developmental work is not considered in isolation.

Shared conceptual language and discourse: The descriptions of professional practice will differ depending on which community is discussing it. A three way partnership between professional body, academics and students will allow space to develop a shared understanding to help define practice. This development in language be beneficial in itself.

Authentic assessment: The development of authentic assessments requires the partners to begin to walk in each other's shoes. How can the development and refinement of this help to define the roles each party takes and the objectives each has?

The student: The students are a shared locus of control, between the professional bodies and academics, but the student also needs to validate their own agency in the space in order to develop their skills, knowledge and begin to embody that practice. The student is the focus, but they are active participants in this process too. They additionally provide the opportunity for both parties to benefit from their reflections. For this to happen, the student needs to be empowered with their own skills and knowledge to complete this extra task.

Boundary crossing and professional practice: Flexner's 1910 attributes of professional practice described at the beginning of this paper, do not explicitly reference an ability to work laterally across fields as well as vertically with a field of expertise. As fields of practice have multiplied and crossed over, the points where they have crossed over have increased. The next generation of professionals will no doubt work in more diverse teams. They will need to work and develop relationships in the virtual as well as the physical world and the need for shared community understanding of practice and behaviours will be even more evident than it is today. Their ability to boundary cross will increasingly become an important skill within their practice. How do we design authentic assessments to support the development of those skills? In addition to this, academics and professionals need to develop these skills in order to improve the process if all parties are to learn from the process.

Evidence of impact from student perspective:

'During this module I've learnt that often employees are reluctant to raise a grievance in the workplace due to fears of retribution from management or becoming the center of workplace gossip. Having learned this, I feel it would be important to form good working relationships quickly with colleagues and have the ability to empathize with them and support them through the whole process.' Student A.

'During this module, I had the opportunity to assess a role play, including a grievance, disciplinary and employment tribunal. I felt emotionally involved with the case and as mentioned previously, I had to learn to evaluate my decisions based on facts rather than how I felt which I found difficult to do at first. For me, the most significant part was being able to follow the process through from beginning to end. In my previous experience, I had only experienced some aspects. Therefore, this was useful to better my understanding of each part of the process. Reflecting on this experience, I now realise people may act out and be difficult in situations such as these. Having experienced this, I now feel I would be prepared to deal with a difficult situation where there are hostile behaviours and I feel conflicted between my emotions and professionalism. I feel I have developed my professional resilience and communication skills when talking to emotional individuals. These skills are essential for a HR professional as being able to communicate effectively during difficult situations is crucial.' Student B.

‘During week eight we learnt about the preparation needed for employment tribunals and we looked at the typical compensation awards different grievances can attract. To my surprise, compensation can be awarded in cases where there is an injury to feelings – this includes financial compensation for feelings of humiliation, distress or anxiety. This has intrigued me as it was not something I knew before and I am interested to learn more about this – particularly looking at how you would measure or quantify the ‘injury’ and justify the financial compensation.’ Student C.

References

1. CIPD New Professional Map [online] available at <https://peopleprofession.cipd.org/profession-map> (2018)
2. CIPD New CIPD research calls for professionals to use HR analytics to improve evidence-based practice [online] <https://www.cipd.co.uk/news-views/news-articles/hr-analytics-research> [Accessed 17th December 2020] (2017)
3. C. Cole, S. Chase, O. Couch, M. Clark, Research Methodologies and Professional Practice: Considerations and Practicalities, *Electronic Journal of Business Research Methods*, Academic Conferences International Limited, 9. 2. 141 (2011)
4. Y. Engeström, R. Engeström, M. Kärkkäinen, Polycontextuality and boundary crossing in expert cognition: Learning and problem solving in complex work activities, *Learning and Instruction*, Pergamon, 5. 4. 319 (1995)
5. <https://www.gov.uk/government/publications/tribunal-statistics-quarterly-july-to-september-2020/tribunal-statistics-quarterly-july-to-september-2020>
6. N.A. Jankowski, J.D. Timmer, J. Kinzie, G.D. Kuh, National Institute for Learning Outcomes Assessment 2. National Institute for Learning Outcomes Assessment, (2018)
7. S. Kemmis, Understanding Professional Practice. A Synoptic Framework, *Understanding and Researching Professional Practice*, **19** (2019)
8. G.D. Kuh, S.O. Ikenberry, N.A. Jankowski, T.R. Cain, P.T. Ewell, Hutchings, P. J. Kinzie, Beyond Compliance: Making Assessment Matter, *The Magazine of Higher Learning*, Informa UK Limited, 47. 5. 8. (2015)
9. G.D Kuh High Impact Educational Practices: A Brief Overview. Available at www.AACU.org (2008)
10. S. Lester, Beyond Knowledge and Competence towards a Framework for Professional Education, *Capability*, **1**. (1995)
11. M. Segon, Managing Organisational Ethics: Professionalism, Duty and HR Practitioners. *Journal of Law and Governance*, Victoria University, 5. 4. available at: <https://doi.org/10.15209/jbsge.v5i4.191>. (2014)
12. D. Soehren, Student Partners in Designing Professional Content and assessment. Paper presented at the 2019 Teaching and Learning Conference, Liverpool John Moores University as part of the Teaching and Learning Academy Enhancement Strategy www.ljmu.ac.uk/academic-registry/teaching-and-learning-academy/enhancement (2019)
13. V. Villarroel, S. Bloxham, D. Bruna, C. Bruna, C. Herrera-Seda, Authentic assessment: creating a blueprint for course design, *Assessment and Evaluation in Higher Education*, Routledge, 43. 5. 840 (2018)

Professional Training Scheme in USUE: COVID-19 Pandemic Impact

*Marina Vidrevich**, *Irina Pervukhina*

Ural State University, 8 Marta/Narodnoy Voli Str., 62/45, 620144 Ekaterinburg, Russia

Abstract. Over the past decades, the Russian tertiary sector has undergone profound changes caused by economic and social factors. The paper focuses on the challenges that modern universities are facing nowadays. One of the challenges is pedagogical and methodological professional development of academic staff, which has been affected by the COVID-19 crisis. However, a rapid shift to online teaching and learning has offered new opportunities to capacity building of staff and faculty who have learned and tested new tools and systems to enable distance teaching and learning. USUE case is considered.

1 Introduction

For many years the model of higher education in Russia was considered as conservative and not open to change. However, over the past decades, this field has undergone profound changes which have resulted from a range of economic and social reasons, including the creation of a competitive economy which is based on high-tech industries, and social modernization of society. Education is becoming a more complex, global system. The Bologna process has also contributed to structural changes, particularly with regard to curricular reforms, quality assurance and student mobility [1].

Russia joined the Bologna process in 2003. A tangible positive outcome for the Russian higher education would be standardization and unification and national curriculum restructuring with implications for teaching and learning strategies, which could assist Russia in entering the single European educational space; ensure student and academic staff mobility and open up the Russian market of educational services. Nevertheless, the introduction of the Bologna system raises some controversial issues. Some experts [2; 3; 4] question the validity of persistent claims in Russia about the positive consequences of ratifying the Bologna Declaration that turned out to be myths. In reality, the provisions of the Bologna Declaration have been applied fragmentally; the transition to the Bologna process in Russia has been limited by the introduction of the bachelor and master level programs only. The most important task has not been completed, i.e. a shift from teacher-centered to student-centered teaching and learning. The once well-functioning Soviet system of higher education was mechanically replaced with a new one. As a result, none of the systems is working. This context entails problems associated with the state regulation of the education system through

* Corresponding author: mbv@usue.ru

Federal State Educational Standards (FSES), and with teaching and learning strategies, in particular, formulation of learning outcomes.

2 Challenges of academic human resources policies

While demands on higher education have been increasing, little attention has been paid to the impact on academic staff [5]. Higher education institutions (HEIs) are tasked with enhancing quality assurance and training qualified workforce for the most important sectors of the country's economy, which largely depends on motivation and competence of lecturers and researchers. Changes in the higher education environment mean that there are inevitably changes to the expectations, work roles, status and professional conditions of academic staff. However, this process is impeded by the challenges the tertiary sector in Russia is facing currently with regard to human resources policies.

One of the issues is the aging demographic of academic staff. According to the statistical data, for the last two decades the 65+ age group has grown three times as much [6] and accounted for 19% of total faculty members in 2018 [7]. In the 2018/2019 academic year, the share of staff over 60 exceeded the category under 30 five-fold (67.8 thousand vs 13.1 thousand respectively) [8]. A large share of older academic staff could signal some problems in the generational renewal of profession. The exiting later-age staff may be more reluctant to engage fully with less transmission-based pedagogies and the potential of modern teaching and learning technologies [9]. Other challenges relate to shortage of qualified teaching staff for postgraduate studies; differentiation of universities by the level of teacher qualification and quality of teaching; and poorer quality of new teachers' training.

In 2019, the Russian Federation adopted the Federal State Educational Standards of secondary and higher professional education of the third generation (FSES 3++), which put forward the requirement for a transition to new milestones of the whole education system, i.e. to the outcome-based approach and meeting labor market demands. It refers to students' abilities to gain relevant information from a variety of resources; critically analyze it, and apply for solving existing problems. One of the essential factors in setting learning outcomes is teaching staff understanding of what learning objectives are. However, the reality is that university teachers often do not have relevant pedagogical and psychological training, or maybe went through it long ago. Young educators, who join the academic staff of the university, are, as a rule, this university graduates, and thus lack pedagogical training. That is why, at the beginning of their teaching careers young tutors experience considerable difficulties: copying the teaching models they were observing while students, they continue to play the outdated role of a teacher as a translator of knowledge.

In order to comply with the qualification standard [10], educators are required to undergo pedagogical retraining every four years. Though universities offer various forms and types of teacher training, the approach to improving pedagogical skills is often quite formal and narrow either limited by pedagogical theory, or focused on innovative educational technologies without discussing how the use of technologies helps to set and attain relevant learning outcomes.

The main areas of training academic staff are determined by the need to update the existing educational programs, which must meet the changing needs and expectations of society. Under the conditions of fierce competition, universities should offer interdisciplinary courses that meet the expectations of future students, both in terms of content and quality of teaching [11]. In order to successfully deliver new training programs, universities need not only to form a cohort of young educators, but also to develop new skills for experienced teachers and offer, among other things, new approaches to improving their skills.

In the authors' opinion, the system of university teacher training should be built around innovative pedagogy and methodology; assist educators in application and design of blended

and advanced methods of delivering educational content [12], which calls for the presence of such skills as an ability to encourage students to acquire skills of critical thinking, problem solving and decision making; to search, evaluate and deploy learning materials; an ability to work in multicultural classrooms, to name just a few. For example, the Ural State University of Economics (USUE), located in Ekaterinburg (Russia), has designed and implemented the Teachers' Training Program (TTP) within the framework of the Erasmus–ENTEP Project in order to enhance the quality of teaching and learning. The TTP is comprised of six modules and covers a variety of active and interactive teaching strategies and methods, from learning outcome-based approach to student engagement and evaluation.

3 Opportunities related to the shift to distance learning

The Covid-19 crisis has completely changed our world. The measures taken to resist the viral pandemic such as forced closure of universities have had an immediate effect on higher education. They have impacted dramatically the conditions under which higher education all of a sudden had to perform what is now often referred to as 'emergency online education' which has often been looked at as a nice-to-have option, rather than a critical model to ensure continuity of education [13].

Educators were forced to start teaching remotely within a short time span, even though systems were not fully ready. By the mid-March 2020 only 11% of Russian universities had had the necessary technological and technical infrastructure to support virtual courses. Every tenth university had no resources or digital capacity to move to full online delivery. Nevertheless, by the end of March, 60% of Russian universities provided distant learning without major interruptions [14].

During the early months of the year 2020, under traumatic conditions of a pandemic, faculty had to shift from conventional to online teaching and learning under circumstances that typical online course development does not have to face. Those circumstances were (1) a need to rapidly, with little to no preparation, transfer instruction online; (2) a need to execute the transition online and subsequent online instruction; and (3) a need to pursue extended online teaching with little to no information regarding if this transition to online teaching will be temporary or more permanent [15].

To keep abreast of distance learning education trends, teachers should be equipped with the knowledge and skills in distance learning education. Digital competence has immediately become the most essential skill. Faculty were asked to create and implement online teaching with no choice but to teach online even if they did not feel properly prepared to do so, or formerly had little interest in online teaching. According to the statistical data [7], 60% of Russian members of faculty have no or very little experience of online teaching or presenting a webinar.

Universities with a strong emphasis on classroom and laboratory-based education and where online learning has been implemented mostly in a supplementary function to classroom activities, report that the closure of the university has exposed a number of critical weaknesses to this approach. There is an urgent need for providing fast track training for the teaching staff in online teaching and learning methodologies. The open mindedness and flexibility of teaching staff in developing teaching material for the online platforms and in using the online teaching systems, as well as the cooperation and support of administrative and IT staff are key factors in the switching to online learning. Online forums may contribute to the exchange of ideas, good practices and experiences regarding e-learning among academic staff. Particular emphasis should be placed on how to do formative and summative assessment of student learning while teaching online.

4 Conclusion

It is clear that the future of higher education needs rethinking. The short term consequences of COVID-19 are a start for addressing the long term consequences. The lessons learned so far must guide future developments of higher education. It is now becomes understandable that a return to 'normal' as we knew it will not be possible, and we will need to adapt for the long-term.

The coronavirus pandemic of 2020 became a push factor that can help everyone to better understand that all the attributes of higher education such as online defences, online entrance and final exams, as well as online academic jobs are as good as those conducted 'in real life'[16].

Most of the institutions have been confronted with a sudden and unprepared shift to online teaching to respond to the need to continue teaching and learning activities and to engage and motivate students when social distancing measures are in place. Many of the academic staff see the experience of working and teaching from distance as an important opportunity to learn from this exceptional situation and to propose more flexible learning possibilities, explore blended or hybrid learning and mixing synchronous learning with asynchronous learning [13].

This unplanned and unprepared experiment in distance teaching and learning has led to capacity building of staff and faculty who have learned and tested new tools and systems to enable distance teaching and learning. It is therefore possible that a shift in mindset is happening or that this experience has opened a new horizon of opportunities for teaching and learning. This might offer a push forward in terms of exploring the potential of flexible learning and more acceptance for online learning to become a more integral part of study plans. We might expect to see an increased innovation in the field of teaching pedagogies as well as delivery modalities of teaching and learning. The learning assessment and examination approaches will also be reviewed in order to build on the experience.

References

1. *European Commission/EACEA/Eurydice, The European Higher Education Area in 2015: Bologna Process Implementation Report.* (Luxembourg: Publications Office of the European Union, 2015) URL: <https://eacea.ec.europa.eu>
2. Iu. S. Ezrokh. *Probl. Econ. Transit.*, **59** (7-9). 627 (2017).
3. S.I. Plaksiy. *Znanie. Ponimanie. Umenie [Knowledge, Understanding. Skills]*, **1**, 8 (2012) [In Russian]
URL: <https://bc.donstu.ru/upload/iblock/85f/85fd1f7ad89770f4f162cf671a30d240.pdf>
4. M.R. Nurieva. *Vestnik MFJuA*, **4**. 261 (2016) [In Russian] URL: [problemy-i-posledstviya-prisoedineniya-rossiyskoy-federatsii-k-bolonskomu-protssessu.pdf](https://www.mfju.ru/iblock/85f/85fd1f7ad89770f4f162cf671a30d240.pdf)
5. *Eurydice Brief. Modernization of Higher Education in Europe. Academic Staff - 2017.* (European Commission, 2017).
6. V.F. Pugach. *Vysshee obrazovanie v Rossii [Higher Education in Russia]*, **208** (1). 47 (2017) [In Russian].
URL: https://vovr.elpub.ru/jour/article/view/922?locale=en_US
7. *Uroki «stress-testa». Vuzy v uslovijah pandemii i posle nee [Lessons from the “STRESS TEST”. Universities in the context of the pandemic and after it]* (Ministry of Science and Higher Education, 2020) [In Russian]. URL: https://drive.google.com/file/d/1GMcBl0P8ITzE_WDVh4nFksX6lceotZY3/view
8. *Obrazovanie v cifrah: 2019: kratkij statisticheskij sbornik [Education in figures]* (Higher School of Economics, Moscow, 2019) [In Russian]. URL: <https://www.hse.ru/data/2019/08/12/1483728373/oc2019.PDF>

9. Y. Ryan, K. Fraser. Education Development in Higher Education. In: *International Encyclopedia of Education* (Third Edition), 411 (2010).
10. *Professional standard "Teacher of professional training, professional education and additional professional education"* (approved by the order of the Ministry of Labour and Social Protection of the Russian Federation, September 8, 2015 No 608n) [In Russian] URL: <http://www.fgosvo.ru/>
11. J.C.G. Bertolin. *Creat. Educ.*, **6**, 2410 (2015). URL: <http://dx.doi.org/10.4236/ce.2015.622247>
12. C. Englund, A.D. Olofsson, L. Price. *High. Educ. Res. Dev.*, **36** (1), 73 (2017). URL: <https://www.tandfonline.com/doi/abs/10.1080/07294360.2016.1171300>
13. G. Marinoni, H. Land, T. Jensen *The impact of Covid-19 on higher education around the world. IAU Global Survey Report* (International Association of Universities, 2020). URL: www.iau-aiu.net
14. *Shtorm pervyh nedel': kak vysshee obrazovanie shagnulo v real'nost' pandemii [Storm of the first weeks: how the higher education stepped into the reality of the pandemic]*. *Sovremennaja analitika obrazovaniya*. **6** (36) (Higher School of Economics. National Research University, 2020). [In Russian]. URL: <https://publications.hse.ru/mirror/pubs/share/direct/368821792.pdf>
15. R.M. Cutri, J. Mena, E.F. Whiting. *Eur. J. Teach. Educ.*, **43** (4), 523 (2020). URL: <https://doi.org/10.1080/02619768.2020.1815702>
16. W. Strielkowski. COVID-19 Pandemic and the digital revolution in academia and higher education. Preprints 2020040290 (2020), DOI: [10.20944/preprints202004.0290.v1](https://doi.org/10.20944/preprints202004.0290.v1)

Programmes design for teachers' professional development as a way of organizational development for the human's capital of the university

*Rimma Gilmeeva, Liutsiia Shibankova**

Laboratory «Cognitive pedagogy and digitalization of Education», Institute of Pedagogy, Psychology and Social Problems, 420039 Isaev Str., Kazan, Russia

Abstract. The relevance of the article is caused due to the importance of teacher's professionalism in achieving success of university's educational activity, and quality of higher education which defines the need for teacher's continuous professional growth in higher school according to the pedagogical career strategy. It is determined by teacher's individual needs and abilities, as well as the inquiries of the university. The leading role in the complex of training materials for additional professional education belongs to additional programmes of teachers' professional development. The purpose of the article is to design additional programmes for teachers' professional development and to identify the criteria for their efficiency. Packages of modular-based programmes, stages for design of the program for teachers' professional development, characteristics of modular-based educational programmes, groups of quality criteria for the additional program for teachers' professional development and a matrix of an expert assessment of programmes for teachers' professional development (online mode) within external expertise are presented in the article. The authors emphasize the special role of personnel's potential in the system of additional professional education. The article is intended for scientists, teachers, experts of the system of additional professional education, post-graduate students and students.

1 Introduction

Recognition of knowledge as the main powerful engine of progress and its great, international value sets the tasks, the positive solutions of which will contribute to the step-by-step development of the state, in general and education, in particular. Training specialists in higher education organizations has to meet some of the requirements, which are international, and are corresponding to the conditions assigned to education by the new system of the international organization and the system of economy [1]. On the background of the highest stage of a post-industrial era and the fourth technological revolution, the significant changes occurred in the education systems of different countries. At the same time, it is important to note that the human

* Corresponding author: luz7@yandex.ru

capital has always been "a major factor for the changes of economy and society types (the accumulated knowledge, intelligence, innovations, professionals)" [2].

The significant changes caused by digital transformation of education [3], the fast-forward technological development, formation of the global educational environment suggest opportunities to possess collectively knowledge, technologies, social values and also to comprehend developmental, cross-country trends in higher education (regionalization, internal integration, etc.) [4, 5]. They are constantly preserving two main positions of an education system: the quality of higher education as the key parameter and a role of the teacher as the defining factor of an educational process [6, 7].

Success and efficiency of educational organization's functioning in higher education, compliance to constantly changing requirements of education both at the international level and at the level of the state, and achievement of the main objective – training for all spheres of new economy, are defined, first of all, by the activities of university's pedagogical personnel. Pedagogical employees of the university, their hard-, soft- and self-competences, their personal values and settings comprise the special value of the university and shape its human capital [8].

In modern conditions the University-teacher has to take into consideration developmental trends of the modern society, satisfy the requirements of an education system, keep on being up-to-date. It defines need for teacher's constant self-improvement and increase in level of the professionalism of the higher school [9].

Today the role of innovations, adaptability of education to the undertaken reforms (in details presented in national projects of the Russian Federation "Science" and "Education"), the need for significant updating the content of the programmes for teachers' professional development in higher school is emphasized. Thus, having solved a problem of teacher's professional growth, it is possible to realize human's continuous enhancing of competences and knowledge throughout all his (her) educational and professional life activities [10, 11].

2 Materials and methods of research

The teacher's continuous professional growth in higher schools is carried out in accordance with pedagogical career strategy which is defined by teacher's individual needs and abilities as well as the inquiries of the university, where the teacher performs his (her) professional activity, in particular and also an education system, in general. Formation of teacher's career strategy in the university is caused by the inter-connected directions of teacher's professional development: individual growth (increase in potential of the personality, self-education of certain qualities); pedagogical mastery (the highest indicator of teacher's professional activity); scientific growth (as a result of the decision-making, realized by the teacher in higher school on independent scientific tasks); status growth of the teacher (change of the official status of the teacher, his(her) social role). Variable opportunities of teachers' career strategies, and their professional growth in any suggested direction are boundless. The development of career strategies, the successful implementation of programmes for teachers' professional development, the choice of effective forms, methods of teachers' professional development should be regulated by the university [9,12, 13].

The vectors of teachers' professional growth are flexible; they reflect the complicated and dynamic nature of teacher's professional activity, variety of defined points, a set of stages for teachers' professional growth, increasing the "hard" and "soft" competences of the teacher in higher school. A great variety of individual strategies of University-teacher's professional growth implies the need of a wide range of various additional programmes for their professional development in higher school.

An integrated individual construct is the package of additional educational programmes of teachers' professional development. Packages of educational programmes are aimed at a certain

level of teachers' professional development, the usage level of which depends on teachers' education, experience of pedagogical activity, experience in the higher educational organization:

- package for programmes of teachers' professional development ("Beginner" level);
- package for programmes of teachers' professional development ("Candidate for Master" level);
- package for programmes of teachers' professional development ("Master" level);
- package for programmes of teachers' professional development ("Researcher" level).

At each level of functioning the programmes for teachers' professional development, in the presence of more prepared and skilled category of pedagogical personnel, "the plus" program position is defined. Within a package, the logical sequence, continuity, logicity of carefully designed programmes for teachers' professional development are obligatory to achieve. Therefore, the questions on design and identification of criteria for evaluation the efficiency of additional educational programmes for teachers' professional development are kept being significant and relevant.

In the following research, these theoretical methods were used: the analysis and synthesis of scientific works on a research subject, generalization, comparison and systematization of the received results. The methods of pedagogical design and modeling of pedagogical situations; methods of questioning, pedagogical expertise, pedagogical monitoring, statistic data processing were used, as well.

3 Results

In the sphere of additional professional education, different forms of teachers' professional development exist, complimenting each other: for example, a training of teachers of the educational organization at the profile enterprise or trainers' professional development in the process of realization of dual training by the educational organization [14]. At the same time, one of the key aspects of the organization of additional professional education is the development of additional programmes for teachers' professional development, along with certification of pedagogical personnel and creation a system of forecasting personnel's requirements of the educational organization.

In the complex of training materials for additional professional education, the programmes of teachers' professional development occupy the leading position. It is connected with the distinctive characteristics inherent to an educational program of this kind, such as: goal-centered focus of an educational process; diagnostics of goal-setting; cyclic nature of training process; fast-forward feedback.

Putting emphasis on the quality of educational resources, we emphasize the need of careful work on each design stages of the program for teachers' professional development. First of all, it deals with the analysis of a new type of activity for the course listeners of the educational program. Applying to the results of this analysis, it is possible to design the content of training. Special attention is paid to the deliberate choice and a complex of methods, forms and means of training and self-training, to design of the didactic materials and planning of an independent work. The last and one of the most significant stages in the design of the additional professional program is development of materials for checking up and assessment of results of listeners' training on the additional professional program [15].

Practice and results of organizations' and institutions' activity on implementing programmes for additional professional development reveal the need of further enhancing of the pedagogical process, the quality of training, achievement of students' independence within an advanced training course, and an individualization of teaching content. The successful solution of these tasks demands application of modular-based additional professional programmes. The modular-based programmes provide the flexibility of training, adopting them according to the listeners' individual needs, and the level of their

(professional) pedagogical training. The positive characteristics of modular-based programmes for teachers' professional development are as follows: a possibility of structuring the content of training on the separated elements; flexibility of the program; dynamism; efficiency and resultativity; consciousness of perspectives.

Further, we consider that it's necessary to emphasize the dependence of quality of programmes implementation on supplementation with the training materials at the sufficient level, revealing aspects of the content of the designed educational program for teachers' professional development. Therefore, their insufficiency causes subjectivity in the content of the program for teachers' professional development. At the same time, the congestion of program contents with materials of minor character should be avoided. The relevance, in this case, serves as a prerequisite of demand of the designed additional professional program.

The obligatory invariant module for all levels and positions of packages is the module containing contents of "novels" of the state educational policy, instruments of their realization, features of educational policy at the regional and municipal level; relevant acts and practical actions in the format of priority federal projects; Russian and foreign "novels", containing innovative pedagogical practices.

Further comes the variety of modules, depending on a vector of teacher's professional growth: the modules are focused on enhancing soft-and hard-competences for development of a pedagogical mastery, an individual growth, a scientific growth and a status growth. At the same time, the modules do not have the static position. Applying to an individual vector of teacher's professional development, the change of a position of any presented educational module is possible, while the system of credit and test units will allow you to avoid risk of module repeting in an educational program [9].

In realization of additional professional programmes, special attention is paid to the question of personnel's potential in a system of additional professional education, preparation and formation of the pedagogical core according to competence-based model of the modern teacher who is a specialist in andragogy. This kind of teacher is ready and has an ability for a constant change of the teaching "repertoire" (teaching style), to choose and mixture of forms, methods and technologies of training, coherent to the purposes and tasks of the additional professional program of a certain level and a position.

The packages of educational programmes are implemented via means of corresponding forms, methods and technologies. A modern reality in the sphere of post-degree education together with the challenges of time implies development and application in educational process of the sufficient methods, technologies of training and forms of the organization of training providing enhancing of teachers' professional development. Implementation of the program has to correspond to the andragogy ideas and answer expectations of the teachers in the process of teachers' professional development. In general, the deliberate choice of a method depends on the content of education, and is defined by the strategy of training, and is internally motivated by the type of interaction between a teacher and the audience [16].

In our case, the content of additional professional programmes is defined by the individual road map of teacher's professional growth on training personnel. Each of the main strategies of teachers' training implies the deliberate choice of prevailing technologies and methods in order to achieve the training objective within the most rational use of educational resources, and defining forms of the organization of educational process and the productive mode of training.

The deliberate choice of a form for the training organization is caused by the type of interaction between a teacher of an additional education and the course listeners (students). Having chosen as criterion a way of communication between the teacher-trainer and the teacher-trainee, who are in the process of their teachers' professional development, these methods can be classified as follows:

- training methods by means of interaction of the trainee with educational resources (self-training of the teacher in higher school);
- methods of the individualized training and learning (training in the mode "one to one");
- methods which are based on the using a training material in the mode "one to many" is (for example, an electronic lecture);
- methods which are characterized by an active interaction between all participants of an educational process (the mode "many to many").

Thus, it is worth noting, that the success of pedagogical activity of the teacher on training the pedagogical personnel depends on a sufficient choice of the purpose and the strategy of training, understanding of features and an ability to compliment any presented methods and forms of education.

Additional professional programmes, being a part of a system of higher school teachers' professional growth, provide realization of an individual career strategy for teachers' professional growth, while interacting with multi-functional educational environment.

Speaking about the criteria of efficiency of additional programmes for teachers' professional development, it should be noted that the main criterion for evaluation of the educational program is defined by the Federal law "About Education in the Russian Federation". The additional educational program has to provide enhancing and/or formation of new competences which are necessary for higher school teachers' professional activity [17] which is a main objective of the program for teachers' professional development. It is possible to achieve, if the educational program corresponds to criteria on the standard, substantial and technological levels. Quality criteria of the additional professional program comprise the following groups of criteria.

The normative group of criteria assumes: compliance of content, structure of additional professional programmes (modules) to federal, regional regulatory requirements; compliance to qualification requirements to the professions and positions.

Compliance to criteria of substantial group assumes: relevance and demand of the additional professional program, compliance to the purposes and problems of transformation of education at the present stage in the era of digitalization; coherence of the following criteria: the purpose, the subject of the program, its content, the planned results of training, the conditions of realization, the forms of checking up and the means of assessment; the integrity of the program including invariant and variable parts in the form of thematic modules; program scientific and methodological support.

Technological group of criteria assumes: compliance to modern educational technologies, methods, forms of organization the process of training and means of training; an implementation of modern information technologies for ensuring personality- oriented nature of training; presence of the research, design and practice-oriented kinds of activities; the organizational and pedagogical conditions suggesting an opportunity to design for the individual educational vectors.

In the conditions of a pandemic of Covid-2019 which caused obligatory to preserve an isolation mode, and, respectively, the remote (distance) mode of teachers' work of the educational organizations at all levels implies readiness of an educational and methodological support for the educational process to perform online-activities. All requirements to traditional way of pedagogical process should be observed in online mode. It concerns also additional educational programmes which should be adopted for the course listeners of programmes for teachers' professional development. Therefore, we consider that in modern conditions of educational process the identification of criteria for evaluation an efficiency of distance learning in the sphere of additional professional education, and teachers' professional development is necessary.

In the process of our research, more than 20 programmes for teachers' professional development were analyzed in the framework of additional professional education; the results of their realization within pedagogical groups were also studied.

In the process of assessing the implementation of educational programmes for additional professional education in an online mode, there was done an expertise on deliberate choice while realizing of educational opportunities for the purpose of obtaining complete information. During this process the following aspects should be analyzed: program for teachers' professional development; videos of the studies that were realized in distance education; reporting materials of the project (results of course listeners', teachers', course organizers' questionnaires; results of pedagogical monitoring; results of performance of individual tasks by course listeners). The presented materials allow us to carry out an expertise with high level of reliability via means of flexible complex of self-audit and external audit in the efficiency assessment. The assessing criteria, presented in Table 1, comprise the problem-based structure of the expertise.

Table 1. Criteria for an expertise on realization of additional professional education (teachers' professional development)

The number of criteria	The content of criteria
1	compliance of the project to the regulatory documents
2	compliance of the content of training to the objective of prevention professional "burning out"
3	realization of the variability and-level differentiated principles of educational process as a condition for providing high-quality service
4	identification and differentiation of course listeners' need
5	ensuring availability and mobility of training within special conditions of educational process (a pandemic of Covid-2019)
6	implementation of modern information technologies for ensuring the personality-oriented and variable nature of educational process in the course of teachers' professional development
7	realization of the practice-oriented activity in the course of teachers' professional development
8	educational and methodological support for the program of teachers' professional development
9	psychologic and pedagogical support of the course listeners of teachers' professional development
10	presence of diagnostic instruments for assessing the results of training
11	presence of the reporting materials on efficiency of educational process

The analysis of the mentioned above meaningful directions of expertise was carried out on the basis of synthesis three main functions of monitoring procedures:

- stating procedure (identification of purpose, and a resource basis, as well as the implemented, organizational mechanisms for realization of the tasks connected with providing opportunities of high-quality teachers' professional development on obtaining new knowledge and skills);
- adjusting procedure (identification of the drawbacks, risks, contradictions and conflicts connected with implementation of the tasks);
- forecasting procedure (accumulation and conceptual synthesis of information allowing to reveal the most efficient and perspective means of ensuring possibilities of receiving high-quality teachers' professional development).

We offered a matrix for an expert assessment on programmes of additional professional education (Table 2) in the conditions of online-training. It is supposed that several independent experts (at least 3 experts) should evaluate the presented materials in accordance with a 5-grade

scale in (1 – lack of criterion; 2-insufficient level; 3 – adoptive level; 4 – high level; 5 – premium level) with final calculation of an average score.

Table 2. Matrix of an expert assessment the programmes for additional professional education (teachers' professional development (online mode) within an external expertise.

The number of criteria	The experts' evaluation					An average value	A resume
	1	2	3	4	5		
1							Corresponds / corresponds partially / does not correspond to the regulatory basis of teachers' professional development
2							Educational content corresponds / corresponds partially / does not correspond to the modern level of science and pedagogical practice development
3							The program for teachers' professional development assumes / assumes partially / does not assume variability of training, differentiation of educational processes, modular-based organization and an individual vector of course listeners' training
4							In the framework of additional professional education, the educational needs, and psychological and pedagogical difficulties of the course listeners are determined / determined partially/ are not determined in the professional activity
5							Providing / providing partially / absence of providing availability and mobility for target audience in the conditions of a pandemic Covid -2019
6							In the course of the training organization modern, digital technologies for implementation of pedagogical communication in a remote (distance) format are used / are used partially / are not used
7							An activity of course listeners possesses / possesses partially / doesn't possess practice-oriented (professional) focus in the course of training
8							The educational-methodological support of the program for teachers' professional development is presented at a high level / is presented partially / is not presented
9							Psychological and pedagogical support of the course listeners is carried out continuously and differentially in a complete mode / is carried out partially / is not carried out
10							Diagnostic instruments for assessing the results of training meet all pedagogical requirements, can be correlated to qualification requirements / can be extended because of the description of competences / can't be correlated to the teacher's professional functions
11							The reporting materials on efficiency are submitted in a complete volume / are submitted in sufficient volume /are not submitted in sufficient volume from all participants

The presented criteria were repeatedly checked at the expertise of efficiency on additional programmes for teachers' professional development for pedagogical personnel in 2020, and proved their reliability and validity.

4 Conclusions

1. Programmes for teachers' professional development in the system of additional professional education suggest an opportunity to respond rapidly to the challenges of time, and developmental trends in higher education. They are capable to act as the "drivers" for developing the system of teacher's professional growth in higher school, forming teacher's readiness to the new formats and modes of their professional activity in the era of digitalization.

2. A huge variety of individual strategies for teachers' professional development in higher school implies the same variety of additional programmes for teachers' professional development that demands the thorough programme structuring for teachers' professional development in certain packages at different levels and a careful stage-by-stage design of an educational program. Consequently, modern reality in the sphere of post-degree education, continuous professional education together with the challenges of time (digitalization, globalization, the fast-forward technological development, external integration and Life Long Learning (LLL) imply the design and application the efficient programmes of teachers' professional development in educational setting. It assumes the implementation of sufficient technologies of training and corresponding forms of the organization of process of training. Well-designed, modular-based programmes for teachers' professional development will satisfy the quality criteria for an additional professional program.

3. Modern conditions for education development (positive conditions: digital transformation, artificial intelligence, etc., and negative conditions: a pandemic of Covid-2019) implies readiness of an educational and methodological support of the educational process to perform online-activities. The presented matrix of expert assessment for programmes of additional professional education on teachers' professional development (online mode) can be transferred to any programmes of additional professional education. It can be realized both at the stage on analysis the efficiency of implementation the program of teachers' professional development, and what is even more important, at a stage for design of the educational program.

4. The quality of teaching activity is provided by the teacher with appropriate level of professional and intellectual knowledge with a scientific nature, and who is possessing the appropriate level of psychological and pedagogical, and methodical training. Efficient teaching activity assumes a teacher's ability to create a psychological and pedagogical interaction both with course listeners and colleagues; to participate in the research / experimental projects; to realize teachers' desire and aspiration to innovations. These are factors defining pedagogical mastery. By increasing the level of professionalism and enhancing the competences, the teacher is able to create a clear algorithm for formation learners' competences which influence on the increase of the education quality in higher school.

References

1. E. Yu. Levina, R. Kh. Gilmeeva, L. A. Shibankova, *Pedagogika*, **7(84)**. 91 (2020)
2. Yu. A. Korchagin, *Cycles of human capital development as drivers of innovation waves* (CIRE, Voronezh, 2010)
3. A. Yu. Uvarov, I. D. Frumin, *Difficulties and prospects of digital transformation of education* (Higher School of Economics, Moscow, 2019)
4. R. Kh. Gilmeeva, A. R. Kamaleeva, A. S. Cats, E. Yu. Levina, V. Sh. Maslennikova, L. Yu. L. Mukhametzyanova, T. M. Tregubova, L.A. Shibankova, *Cognitive pedagogy* (IPPSP, Kazan, 2020)
5. A. M. Korotkov, N. K. Sergeev, *IofVSPU*, **4(137)**. 4 (2019)
6. M. Elken, B. Stensaker, *QiHE*, **3 (24)**. 189 (2018)

7. L. Shagrir, TiHE, **8**. 783 (2015)
8. L. A. Shibankova, KPI, **3**. 19 (2020)
9. R. Kh. Gilmeeva, E. Yu. Levina, T. M. Tregubova, L.A. Shibankova, *Scientific and methodological support of professional growth of a teacher in training* (IPPSP, Kazan, 2019)
10. V. E. Kozlov, E. Yu. Levina, S.V. Khusainova, Vestnik CHGPU, **2**. 107 (2019)
11. S. Gustavsson, A. Andersén, M. Berglund, RP, **3**. 339 (2019)
12. H. Teräs, PDiE, **2(42)**. 258 (2016)
13. W. Smets, K. Struyven, CE, **1(7)**. 1742273 (2020)
14. I. I. Falyakhov, KPI, **2**. 45 (2016)
15. T. M. Tregubova, L. A. Shibankova, *Russia and the World: the Development of Civilizations* (IWC, Moscow, 2018)
16. A.I. Kukuev, *Current problems of additional professional education in the south of Russia* (IPO PI SFU, Rostov-on-Don, 2008)
17. Federal Law No. 273-FZ of December 12, 2012 "On Education in the Russian Federation".

Psychological safety as a characteristic feature of common education environment of higher educational institutions in times of globalization

Nadezhda Nichiporenko*, Anna Zhemchugova

Federal State Budget Scientific Institution «Institute of Pedagogy, Psychology and Social Problems», Laboratory of Research of Deviant Behavior, 420039, Isaev str, 12, Kazan, Russia

Abstract. The article is devoted to the analysis of the results of monitoring carried out in higher educational institutions of the Republic of Tatarstan (more than 30 universities, institutes and their regional subdivisions). 47433 students were surveyed for the present analysis. The goal of the research was to study the parameters of educational environment that might potentially influence on individual's psychological need for security. During the monitoring the students' depression and aggression levels were measured. Questionnaire touched upon psychological security problems, such as relationships with teaching staff, relationships with peers, situations of psychological abuse (bullying and mobbing), emotional attitude towards studying. According to correlation analysis that was carried out, it was possible to single out multiple cases of correlation between aggression and depression with various security components of educational environment. The article reflects the fact that depression and aggression represent not only generalized, obscuredly specific patterns of psychological ill-being of a certain person, but they are known to be adjustment mechanisms that help to cope with adverse circumstances. Being closely related to different factors of schooling, depression and aggression can serve as secure and valid subjective markers of psychological security of a certain person in the educational environment.

1 Introduction

Rapid changes of modern educational process under the conditions of transformation to information-oriented society is a direct result of international processes of globalization and digitalization. Any innovations and transformations in social reality are inevitably connected to certain risks and can lead to a decrease in psychological safety of personality. Nowadays this tendency is also intensified by such factors as political and economic instability, threat to life and health in times of pandemic, toxic mass media. Yu.P. Zinchenko addresses some problems of safety in broader sense, defining this parameter as the activity of certain social subjects and relations between them as a sphere where social, collective and individual consciousness can function and develop [1]

* Corresponding author: nichiporenko.n@yandex.ru

Management of common education environment even in one particular state can be extremely challenging as it is. In case we need to talk about creation of educational environment, that has to integrate various mental and cultural patterns of Europe, Russia and China, it is important to sustain unique character and identity of the subjects of educational environment on the one hand and to define common features and parameters that might be universal and weakly specific (free from the cultural influence) on the other hand. Therefore, psychological safety of education environment is in fact a priority in terms of universal human values and thus deserves a status of independent topic for cross-cultural research.

The foundation for studying different characteristics of environment as a factor for personality development were reflected in cultural and historic theory of L.S. Vygotsky and reflected in the definition of “social situation of development”. According to L.S. Vygotsky social situation of development corresponds to “unique, specific for a certain age, exceptional, one and only relation between a child and surrounding environment (mostly social environment)” [2]. The definition of “educational environment” appeared and was developed later on. Ecological and person-centred model of the environment includes scope of society, organizational structure of society, as well as culture, technogenic sphere and it is assumed that interaction of different components lies foundation for this environment [3]. G.A. Kovalev described three-component structure of educational environment. This includes “human factor”, “physical surrounding” and “curriculum” [4]. This structure became a benchmark for a further structural and content-related analysis of the environment in many different psychological research works. V.V. Rubtsov brought to the foreground psychological characteristics of the environment and defined education environment as a form of communicative interaction. He considered the components of the education environment to be psychological organization of knowledge transmission, psychological climate and social and psychological structure of a team as well as psychological characteristics of the students [5].

Hereafter the researchers shift the focus onto subject and object relations of a person and the environment. V. I. Slobodchikov mentions adaptability of educational environment as its ability to assimilation and accommodation [6]. From the point of view of subjects of educational environment its adaptability is defined by “possibilities” that this environment provides to satisfy individual needs. These “possibilities” become the mediators between subject and environment. “Possibilities” here are defined both as features of environment and as features of subject. Thus the experience of environment by subject starts to play an important role. In this respect, impersonal space becomes an environment only in case when conditions become possibilities. Discrepancies between these two sides of interaction (conditions and possibilities) can lead to a certain psychological ill-being, disturbance of an emotional balance and even to increased level of aggression of the subjects of environment [7].

For modern research of educational environment safety discourse is of immediate interest. I.A. Baeva defines psychological safety of environment as “a condition of the environment free from manifestations of psychological abuse during the interaction; it also promotes satisfaction of the needs in personal open communication and creates benchmark significance of the environment and provides psychological well-being of the members that are involved in it” [8]. Markers of well-being of educational environment might be emotional and personal as well as communicative characteristics of its subjects, such as self-actualization, self-attitude, commitment to communication, level of self-centering and centering on others, low level of emotional tension [9]. Safety risks of school environment are represented by violation of subjective well-being, discipline, environmental comfort, as well as expressions of violence, substance abuse, cross-ethnic conflicts, suicidal behavior, psychological traumas of different origins [10].

The research of the factors that reflect tension in the educational environment in higher educational institutions shows that safety of educational environment can be determined by the results of both external and internal factors and influences. In this respect any pressure, including the pressure from the environment can lead to two oppositely directed results: either external resistance, such as aggression, breaking of customary norms, or internal, when the response to pressure is social withdrawal, avoidance of the contact and autoaggressive tendencies [11].

In foreign countries the research works on depressive tendencies in students are widely spread, because depression is considered to be main psychological disorder, that many students face during their university years. Prevalence of depressions among students might be connected to sudden changes in the conditions of their lives when they enter the university, or appearance of other more severe psychological, social and economic demands from the society [12].

From the perspective of the present research, the work of A. Fung, L. Gerstein, Y. Chan and J. Engebretson [13] might be of a certain value. They have established the connection between aggressive manifestations and depressive conditions in students. It is important to mention that the degree and character of severity of aggressive tendencies among students that were previously diagnosed with depression and that clearly demonstrate depressive patterns of the behavior, are connected with the structure of depression and type of dominant affect. For instance, it was shown that in the group of students that had a combination of symptoms of depression and high levels of hostility and aggression, the type of dominant affect was anxiety. It is increased anxiety in the structure of depression that leads to manifestations of both indirect and direct verbal and physical aggression. This becomes particularly evident in the form of irritation, fears and instability of emotional processes. At the same time the students, who had despair as their dominant affect in the structure of depression, were less inclined to demonstrate aggressive and hostile patterns of the behavior. Signs of depressive state are mostly of passive character. The other research demonstrated the evidence of the fact that the level of aggression can increase in the presence of low level of intellectual abilities and inability to interpret personal emotions and conditions [14].

While studying clinical and patho-genetic aspects of depression typology, the staff members of Moscow Psychiatric Research Institute proved that the affective component of depressive syndrome (anxiety, despair, apathy) define structural peculiarities of depressive state, as well as direction and level of aggression and the degree of violation of social and psychiatric functioning [15]. Earlier in her works A.V. Vaxman paid attention to the fact that high level of aggression combined with depressive episode leads to increase in the degree of suicidal risks, as well as risks of hostile anti-social behavior and misanthropy. In case the level of aggression is low, suicidal behavior is usually of demonstrative character, however the somatic component of the depression might be clearly explicit (vegetative disorders, cardiovascular and respiratory symptoms) [16].

Generally, a combination of depressive and aggressive patterns is clearly visible in younger patients, as well as emotionally unstable patients, that show tendency to displaying demonstrative and narcissistic behavior. Males tend to demonstrate this type of combination more than females [17].

The combination of such factors as aggression and depression has a direct correlation with social disadaptation in young adults and violations of interpersonal interaction in all spheres. It is worth mentioning that depressive patients with low level of aggression might have deterioration mostly in studying and work-related spheres, connected with decrease in cognitive abilities, which is common in cases of depression.

Thus, favorable and safe educational environment forms stable personality that might be resistant to external influences. Signs of disadaptation and ill-being are such symptoms as

high level of aggressive and depressive tendencies among the subjects of the environment. The aim of the present research work is the study of characteristics of psychological safety of educational environment in higher educational institutions.

2 Methods and research methodology

The Republic of Tatarstan is one of the biggest regions with quite a wide spectrum of ethnical, cultural and confessional diversity. It is a unique region of the Russian Federation, that manages to successfully integrate eastern and western traditions. Due to these characteristics and favorable geographical location, Tatarstan can serve as a multicultural model and platform for implementing cross-cultural research.

47433 students were surveyed for the present analysis – they are the students of more than 30 educational institutions and their regional subdivisions, 45578 of them are undergraduate students, 1855 – students doing Masters courses, 19238 are females, 28195 are males.

In the process of monitoring levels of students' depression and aggression were surveyed by means of testing as well as filling in the questionnaires. A complete version of the questionnaire consisted of 33 questions, that touched upon different aspects of relations between the subjects of the educational environment. Present article analyzes certain selected questions that were given in the questionnaire. These questions are directly related to problems of psychological security, such as relationships with teaching staff, relationships with peers, situations of psychological abuse, emotional attitude towards studying.

Psychodiagnostic research methodology. 1. The Zung self-rating depression scale (adaptation made by T.I. Balashova in the Addictology Department of Research Institute named after Bekhterev). This questionnaire was developed for the purposes of differential diagnostic procedure of depressive and near-depressive conditions. It is effective for screening in mass research as well as for the purposes of premedical diagnostics. 2. BPAQ-24 (Buss-Perry Aggression Questionnaire) developed by A. Buss and M. Perry for the purposes of diagnostics of inclination to aggression and of three aggression factors: physical aggression, anger and hostility. Adaptation of this methodology in Russia was carried out by the experts of the laboratory of clinical psychology in Russian Academy of Medical Sciences S.N. Enikolopov and N.P. Tsubulskiy. They adapted the questionnaire by testing law-abiding trial subjects and criminals that were sentenced for committing aggressive and violent crimes (murder, assault, rape abuse, causing a dreadful injury, gross misconduct). The results of adaptation and standardization of the present methodology on the contrasting groups of trial subjects proved high level of validity and reliability of the Russian version of the questionnaire (BPAQ-24) and its feasibility for the purposes of diagnostics of physical aggression inclinations, as well as hostility and anger. Specified three-factor structure of the questionnaire corresponds to theoretical disposition of three components of aggression in the concept of A. Buss and M. Perry: instrumental (physical aggression), emotional (including physiological excitation and affective preparation to aggression – anger) and cognitive (cognition of injustice and infringement, unfulfilled desires – hostility).

3 Discussion and analysis of the results

In order to define the correlation between the studied parameters, the correlation analysis (Pearson method) was used.

The correlation between depression and aggression is direct and statistically evident with the high level of significance ($r=0.547$, $p<0.001$).

The questions of the questionnaire were grouped according to the content, depending on the aspect of relations they touch upon.

The first group – “Emotional attitude towards studying” – included 6 questions, relating to positive emotions in the process of studying (interest, joy, satisfaction), academic overload, possibility to regulate the level of self-participation in the social events, possibility to openly show your point of view, as well as some questions related to negative experience in relation to studying, teaching staff and fellow students – fear, anger, grievance, accusations. All correlations between depression/aggression and positive emotional states are negative ($-0.37 \leq r \leq -0.21$, $p < 0.001$), and correlations with negative emotions are positive (connection with depression $r = 0.33$, $p < 0.001$, with aggression $r = 0.34$, $p < 0.001$).

The second group – “Relationship with teaching staff” – consisted of 3 questions that were aimed at identifying the level of security from unsubstantiated criticism from teachers (connection with depression $r = -0.32$, $p < 0.001$, with aggression $r = -0.32$, $p < 0.001$), unrighteous accusation (connection with depression $r = -0.25$, $p < 0.001$, with aggression $r = -0.25$, $p < 0.001$), capability to receive support and help from teachers (connection with depression $r = -0.35$, $p < 0.001$, with aggression $r = -0.34$, $p < 0.001$).

The third group consisted of 6 questions that were aimed at identifying various aspects of relationships with fellow students. The following things were tested: support and help from peers in the process of problem solving (connection with depression $r = -0.32$, $p < 0.001$, with aggression $r = -0.32$, $p < 0.001$), trust (connection with depression $r = -0.32$, $p < 0.001$, with aggression $r = -0.38$, $p < 0.001$), mutual help (connection with depression $r = -0.30$, $p < 0.001$, with aggression $r = -0.37$, $p < 0.001$), absence of hostility (connection with depression $r = -0.20$, $p < 0.001$, with aggression $r = -0.30$, $p < 0.001$), presence of friends (connection with depression $r = -0.35$, $p < 0.001$, with aggression $r = -0.29$, $p < 0.001$), opportunity to share joy or problems (connection with depression $r = -0.36$, $p < 0.001$, with aggression $r = -0.29$, $p < 0.001$), security among peers (connection with depression $r = -0.33$, $p < 0.001$, with aggression $r = -0.31$, $p < 0.001$).

Two questions from the questionnaire were directly related to bullying and mobbing. 12,9% of the respondents had an experience of being bullied in their educational institutions (schools and universities), while 16,9% of respondents witnessed this phenomena. Correlations with depression for those, who were the victims of bullying $r = 0.31$, for those who witnessed that $r = 0.22$ ($p < 0.001$). Correlation with aggression $r = 0.33$ and $r = 0.31$ respectively ($p < 0.001$).

While analyzing the results of the research we are going to use several connotations of the term “aggression”. Aggression is stable characteristics of the subjects that reflects their predisposition towards the behavior that is aimed at harming surroundings. Aggression is also defined as psychological condition, complex of affects, including such emotions as irritation, anger, rage, grievance, wrath and hatred. Aggression in its broader meaning is state of activeness that is aimed at achieving the goals, overcoming the obstacles. Constructive aggressive behavior is one of the forms of reacting to different unfavourable (both physical and psychological) factors that trigger deprivation of certain important needs, stress and frustration. Destructive aggression is a type of motivated behavior that brings harm to inanimate and animate objects of attacks, bringing physical, moral harm to people or triggering a certain psychological discomfort.

In the present research the term “depression” also has several connotations. Depression can have a status of stable personal characteristics, that is represented in the form of atonic state of need and motivation, inclination to perceive and interpret the events in a negative way, low level of vital energy, apathy and passiveness. The notion of depression can also describe an emotional phenomenon (psychological state) with prevailing decreased mood, melancholy, despair, asthenia, helplessness, frustration. The term “depression” can also

characterize a wide spectrum of premorbid and clinically apparent conditions ranging from subdepressive manifestations to profound forms of endogenous depression.

Aggression and depression represent certain personal characteristics that might be clearly measured, moreover they have a high level of prognostic value in the sphere of prediction of certain developmental deviations. It is important to single out the fact that both aggression and depression are to some extent generalized, weakly specific psychological phenomena that might trigger or be a cause of forming certain abnormalities of different spectrum, such as mental health conditions and personality disorder, psychosomatic reactions, conditions and illnesses, varied forms of social alienation, delinquent behavior, criminal activity. Being to some extent closely connected to such a varied spectrum of deviations, aggression and depression are used in the present research as markers of psychological ill-being.

Prepubescent years and adolescence represent periods of intensive personal growth, it is the time of self-identification and personalization. During the university years students continue to go through separation processes, as well as identity forming processes. It is possible to say that to a certain extent they confront multiple socialization challenges that society places in front of them. It is possible to say that conflict of individuation and socialization processes reaches its peak in adolescence compared to other developmental periods. Age-specific tasks of this developmental stage are complex and controversial, while there are usually not enough skills to cope with them, as ways of coping with difficult life situations are still in the process of formation. From this point of view students of higher educational institutions represent on the one hand a certain risk group when it comes to reinforcement of negative scenarios of their life journey and on the other hand a wide target audience for measures that might be taken in order to prevent different deviations in the older age.

Aggression in adolescence and prepubescent years is not necessarily a sign of negative trait of character. In certain cases the absence of aggression in this period may cause more worries than openly aggressive behavior. Separation processes form personal boundaries, determinate the privacy of the psychological space of personality and as a result it is impossible to carry out these tasks without a certain level of aggression. The development of identity is carried out with the help of two different mechanisms – identification with a certain social group and differentiation of “your own” social group from the community of “others”. This causes an underlying conflict, and in certain cases even confrontation, when you have to differentiate “yours” from “others”, “yourself” from “stranger” and sometimes you have to be able to stand your ground in a conflict with “others”. In separation process and personality forming process aggression plays an instrumental role, it serves the tasks of adaptation and has a clearly constructive character. That’s why we claim that insignificant increase of psychological and social norms of aggressiveness in adolescence and prepubescent years is quite acceptable and it is usually a feature of normal stage in development process of this age rather than a sign of deviation or personality disorder. Abnormal variations of the development are represented by two types of destructive aggression. Firstly, it is autoaggression and its extreme manifestation, i.e. suicidal behavior. Secondly, it is hetero-aggressive behavior, in case the forms of this type of aggression assume a form of delinquency, asocial, antisocial or criminal activity.

The main sign that might differentiate a “normal” type of aggression is the fact that the person is able to regulate his aggressive behavior and his own level of aggression. Thus the criterion of the norm of aggression is not just its level, but rather presence of self-regulation.

Depression as well as aggression can fulfil certain adaptive functions. Depressive states decrease general level of functioning, decline the intensiveness of external activity, save strength and allow to withstand in the times of hardship. Depressive tendencies are to

certain extent an opposition to aggressive tendencies, and thus they are effective in the circumstances when it is useless to use aggression. These are the situations when active actions can cause a profound damage to the personality itself, while inertness can be a good solution. In terms of emotions these situations are usually connected with such feelings as disappointment, despair, asthenia, helplessness, frustration. In case these circumstances have a prolonged character and become chronic, depressive patterns of coping can become settled. Long-term usage and aggravation of depressive ways of reacting might increase the risk of psychological disorders, promote personality disorder, intensify autoaggressive tendencies and promote suicide.

Psychological safety of the educational environment is a multifactorial phenomenon, that might be considered as a combination of external conditions of studying and their internal representations. The questions in the questionnaire, that were relevant to the research topic, were divided into 4 groups and thus it became possible to analyze four-component structure of psychological safety of educational environment. These components are emotional attitude towards studying, relationships with teaching staff, experience of psychological abuse, relationships with peers (other students, groupmates).

Emotional attitude towards studying process is expressed via positive emotions such as interest, joy, satisfaction, which in turn indicate that the atmosphere in the university (institute) is perceived as being comfortable and safe. The spectrum of these emotions is connected to aggression and depression reciprocally. Generally, it is considered to be a reliable subjective indicator of psychological safety of the students. Fear, anger, grievance and unsubstantiated accusations from the teachers have a direct correlation with aggression and depression in students. From the point of view of emotional comfort, it is essential to give students opportunity to self-regulate the level of their involvement in the public events, and it is also important for them to be able to express their point of view freely. Moreover, the university administrative staff and the studying schedule itself should allow students to regulate their academic workload in order to avoid exhaustion. All these factors create supportive environment for the development of metacognitive studying skills, such as goal-setting, monitoring, planning, self-regulation and self-control. It might be problematic for the 1st year students, because these skills are usually still underdeveloped due to the fact that school education system uses mostly external control and external motivation. As a result, this hinders the development of self-organization and self-regulation. The opportunity to regulate academic overload, avoid exhaustion and not to take part in the events, that are considered to be less important by the students themselves are important for psychological safety as this creates internal feeling of control and possibility to influence the circumstances, regulate the environment, plan their time and resources.

Relationship with teaching staff is also an important component of the educational environment, that influences the perception of psychological safety of the students. Being protected from unfair criticism and unsubstantiated accusations from the teachers, opportunity to receive support and help from the teaching staff not only helps to minimize the expectancy of external danger, but also becomes the factor of preventative measures against such feeling as hopelessness. It should be taken into consideration that during the first years of studying at university students are still really sensitive towards criticism and assessment from third parties. The feelings of guilt and shame (especially narcissistic shame) represent very strong toxic emotional experience, that directly jeopardizes both self-respect and self-esteem and at times even the integrity. It looks like shame and guilt, that were induced by significant grown-ups (parents, teachers), are the most important ways of influencing the developing personality. These feelings represent main parameters of psychological unsafety in modern educational environments (these might be school, university or even family).

Relationship with peers as a factor of psychological safety was represented in the questionnaire by such parameters as feeling of security among peers, support and help from groupmates in problem solving, trust and mutual help, absence of hostility, presence of friends, possibility to share joy or problems. All these characteristics of social contacts have negative correlations with aggression and depression and thus can definitely be considered as important factors that reflect safety of educational environment.

Bullying and mobbing are quite wide-spread ways of stigmatizing in different groups of people. However, these two phenomena represent extremely dangerous forms of psychological abuse specifically among adolescents and young adults in different educational institutions, because they trigger traumatizing of both the victim and the witnesses of these phenomena. The main components of psychological trauma in this case are asthenia (inability to stand against the collective aggressor) and helplessness (inability to turn for help neither to teaching staff, nor to groupmates; very often the victims of bullying refuse to talk about their negative experience even with their parents). There are three specific age-related factors that can multiply the traumatic experience. The first one is high importance (referentiality) of relationships with peers. The second factor is imperfection of well-established psychological defenses and lack of efficient coping mechanisms. The third factor is desperation, when the students feel that it is impossible to solve a situation or make a safe getaway. Not everyone is eager to change the educational institution or class, and at the same time parents usually underestimate the level of real danger, while prestige, intellectual status of school, institute or university become a real priority as opposed to psychological safety of the child. There is a clear correlation between the experience of bullying or facing this as a witness and both depression and aggression. It should also be mentioned that coefficients of correlation for witnesses and victims are very close for the parameter of “depression” (0.31 and 0.22 correspondingly) and are almost identical for the parameter “aggression” (0.33 and 0.31). Thus it is possible to conclude that any type of involvement in abuse in educational environment represents a real threat to psychological safety of all subjects of educational cooperation.

4 Conclusions

1. Depression and aggression can serve as secure and valid subjective markers of psychological security of a certain person in the educational environment.
2. Any type of involvement in abuse in educational environment represents a real threat to psychological safety of all subjects of educational cooperation.
3. The important parameters of safe educational environment in academic institution of higher education are relationships with peers (other students), relationships with teaching staff and common emotional context of the educational institution.
4. Depression and aggression represent not only generalized weakly specific markers of psychological ill-being of personality, but are also mechanisms of adaptation to unfavourable circumstances.

Acknowledgements

The research was carried out by state order №0599-2019-0043 “Problem of deviant behavior in the system of modern study of human nature”.

References

1. Yu.P. Zinchenko, National Psychological Journal, **2(6)**, (2011)
2. L.S. Vygotsky, *Age problem*, (1984)

3. O.D. Dulkan, L.F. Shnore, Amer. Journal of Sociology, **65**, (1969)
4. G.A. Kovalev, Voprosy Psychol., **1**, (1993)
5. V.V. Rubtsov, Second Rus. conf. on environmental psychology, (2000)
6. V.I. Slobodchikov, Second Rus. conf. on environmental psychology, (2000)
7. V.A. Yasvin, Journal "Izvestiya of Saratov University. Series: Philosophy. Psychology. Pedagogy", **18(1)**, (2018)
8. I.A. Baeva, E.V. Burmistrova, E.B. Laktionova, N.G. Rassokha, *Ensuring psychological safety in an educational institution*, (2006)
9. I.A. Baeva, L.A. Gayazova, Psychological Science and Education, **4(3)**, (2012)
10. I.A. Baeva, Kazan pedagogical journal, **125(6)**, (2017)
11. M.I. Bekoeva. Baltic humanitarian journal, **4(21)**, (2017)
12. A. Hamdan-Mansour, J. Halabi, & H. Dawani, International Journal Mental Health Addiction, **2(1)**, (2008)
13. A. Fung, L. Gerstein, Y. Chan, & J. Engebretson, Journal Child Family Studies, **24**, (2015).
14. P Rey, L. & N. Extremera, Universitas Psychologica, **11(4)**, (2012)
15. O.P. Vetrogradova., I.L. Stepanov., N.M. Maximova., A.V. Vaxman., S.Yu. Dikov., K.A. Koshkin., O.V. Moiseycheva, O.V. Tselischev, Social and clinical psychiatry, **22(3)**, (2012)
16. A.V. Vaxman, *Aggression and socio-mental functioning of patients with depression*, (2004)
17. L. Burton, J. Hafetz & D. Henninger, Social Behavior & Personality, **35(1)**, (2007)

Quality assurance of higher education in chemistry in Russia taking into account international trends in the context of the cognitive paradigm

Alsu Kamaleeva¹*, Suriya Gilmanshina²

¹Institute of Pedagogy, Psychology and Social Problems, Isaeva st., 12, 420038 Kazan, Russia

²Kazan Federal University, Kremlyovskaya st., 18, 420008 Kazan, Russia

Abstract. In the process of organizing chemistry education, it is important to understand that in the context of the introduction of the cognitive paradigm of education under the conditions of modern generating of chemical knowledge, the system of additional education as a universal form of development leads each student to a new, better state. Within the framework of a new approach to the organization of a purposeful process of teaching and upbringing by means of providing educational services by the implementation of additional educational programs, information and educational activities outside the main educational programs in the interests of students on the basis of the Kazan Federal University, author's electronic educational resources and digitized programs of additional education were developed and tested on the example of theoretical and experimental teaching at the Small Chemical Institute of the University. A survey of chemistry teachers working in schools in the city of Kazan or the Republic of Tatarstan, as well as graduates - future chemistry teachers showed that 97% of respondents use the possibilities of the system of additional chemistry education. The structure and logic of the implementation of the proposed programs expand the ability to use logical thinking operations in teaching, such as synthesis, analysis, analogy, comparison, generalization and systematization, and are aimed at forming students' understanding of a single chemical picture of the world, its materiality and the reasons for the diversity of the natural science world.

1 Introduction

The relevance of the article lies in the fact that at the moment the Russian system of additional education is becoming increasingly important in the upbringing and development of the younger generation. Natural science [1] and engineering education [2, 3] are of particular interest. Accordingly, the need for qualified personnel in an educational institution is also increasing, who will be able to organize and implement projects related to additional chemical education for students. The teacher must have a certain research and methodological base in this area in order to ensure the qualitative growth of the educational and methodological support of the taught discipline.

Article 2 of the Federal Law of December 29, 2012 No. 273-FZ (as amended on April 24, 2020) "On education in the Russian Federation" emphasizes that additional education is a type of education aimed at fully satisfying the educational needs of a person in intellectual, spiritual, moral, physical or professional improvement and is not accompanied by an increase in the level of education [4].

A study of federal documents describing additional education helped to identify a number of problems in the legal regulation, namely:

- The problem of qualified personnel in the areas of additional education for students, a significant lack of material support of specialists in additional education;
- Impossibility to satisfy the social order of children due to a lack of personnel and underdevelopment of the material base;
- The lack of the possibility of widespread introduction of paid additional educational services due to the large number of families in Russia with low material wealth [5].

The solution of the problems presented above is especially significant due to the fact that the development of additional education effectively affects:

- Creation of a general cultural and emotional background for a positive understanding of the values of general education and successful assimilation of the content;
- Implementation of "unobtrusive" education - when students are included in creative, personally significant activities;
- The orientation of students who show great interest in certain types of activity, to realize their abilities in the institution of additional education for students [6].

Emotional saturation is another feature of the development of children in the context of organizing additional education. An emotional-value attitude towards the world can be formed in students in the process of communicating with outstanding personalities, whose work and creativity inspired them to seek answers to questions [7]. We agree with the authors of the textbook on additional education [8] that additional education is a purposeful process of teaching and upbringing by means of providing additional educational services, the implementation of additional educational programs and information and educational activities outside the main educational programs in the interests of the individual, the state [8].

Comparison of the parameters of organization and availability of additional education in different countries of the world is manifested, first of all, in the differences in approaches to defining the definition of "additional education". In English-speaking practice, there are different concepts that can be correlated with the Russian idea of additional education, such definitions as "*outdoor education*", "*extracurricular activities*", "*supplementary education*", "*additional education*", "*education*", "*leisure*", "*extended education*", "*after school education*" [9]. This is due to the fact that abroad the concept of "general" is understood as formal, which is inextricably linked with additional (non-formal) education [10].

Independent development and separation received additional education only in the nineteenth century. In Europe, there are two concepts of organizations that are outside the school - this is the concept of development and the concept of care, expressing the requirements for institutions of additional education [11].

The most progressive and successful in terms of the development of non-formal education is Western Europe [12]. In Western Europe, the concept of care is a pillar of continuing education institutions. The main focus of this concept is to help teenagers or children with very serious problems. This direction of development of institutions of additional education was chosen by Poland and the Netherlands. In addition to out-of-school departments, they have foundations, associations and centers of non-formal education, Jordanian gardens, youth centers, youth palaces [13].

In Central and Eastern Europe, the concept of development is predominant. The state sponsors in the interests of a large group of young people who have no problems

psychologically, socially or physically. The extracurricular system of leisure there demonstrates state support, and this explains mainly the official occupation of the bodies of additional education [14].

High expectations in the potential of additional education are also explained by the main international organizations OECD and UNICEF [15].

The Ministry of Education in Singapore defines four groups of additional circles - communities and clubs, military-patriotic education, classes in subjects (for example, natural sciences or handicraft and cooking circles), physical education and sports, spectacular and visual arts [16].

The content of additional education in the United States is very diverse. Although, as follows from the website of the US Department of Education, they do not have an official name for areas in the system of additional education, they offer differentiation according to the main goal of the educational program, for example, circles in specialties (art, sports, theater, science or the scout movement), universal circles (after-school groups, clubs for girls or boys); the purpose of studying in academic circles is to increase or increase academic success, "catch up" missed material or study super new programs. The greatest attention is paid to specialty circles [17].

Additional education in Australia covers a wide range of subjects from three main areas: musical and creative, sports and outdoor education [15].

If we consider additional chemical education abroad, then in this area China is considered to be successful, with a new education system (NSO). This system is focused on solving practical problems using scientific knowledge; it places great emphasis on maximizing the satisfaction of the craving for knowledge and maintaining enthusiasm in solving creative problems. For example, in organic chemistry, the following questions are asked: theoretical questions in organic chemistry; organic chemistry in everyday life; organic chemistry and medicine; organic chemistry in agricultural industry, high technology or military affairs [18].

The system of additional education for children of the Russian Federation in its new qualitative state has been implemented for more than 10 years [19]. The idea of transforming Russian education into an important factor in ensuring Russia's competitiveness among the developed countries of the world was taken as the leading one. This is recreated in state documents based on the implementation and development of the national project "Education" (dated 05.09.2005) [20], which should be implemented by December 31, 2024, as well as the National Educational Initiative "Our New School" (from 04.02.2010) [21].

The state assumes responsibility for the fact that in the near future the educational opportunities of citizens will be expanded and accessible. This is a necessity for the modern education market. If the sphere of educational services, which will be sponsored by the state, will increase, this will have a positive impact on the progressive development of competition in the global educational market.

Modern Russian additional education is implemented on the basis of the principles of democratization, humanization, personalization and pedagogy of cooperation in the context of the cognitive paradigm within the framework of a new direction in education - "cognitive pedagogy", which transforms the processes of teaching and upbringing in the context of the formation of cognitive and personal structures of a person [22].

Thus, at the current level of development of society, the world pedagogical community realizes that any budgetary investment in the development of additional education is a long-term investment in the future development of society and the state.

2 Methods

In accordance with the Regulation on an additional general educational general development program, the structure of additional programs must correspond to:

- A certain established level of education (primary, general, basic general, secondary general education);
- Cultural achievements in the world, as well as Russian traditions;
- The latest modern educational technologies, which are recreated in the principles of learning (accessibility, individuality, efficiency, continuity);
- Methods and forms of education (distance or differentiated learning, competitions, classes, competitions, excursions, etc.);
- Methods of management and control of the educational process;
- Teaching aids (a list of the necessary equipment, tools and materials, counting on the union of students) [23].

In chemistry, the theoretical part of the additional education program is, as a rule, modern ideas about the state of aggregation of substances, the quantitative and qualitative composition of substances, the basics of chemical analysis and chemical processes [24]. In addition to the above topics, there are also topics such as acquaintance with chemical household products, biochemistry, electrochemistry, chemistry of metals and non-metals, achievements in the field of chemistry in the national economy. A large amount of time is devoted specifically to issues of experimental chemistry, practical and laboratory work in the laboratories of a school or university.

Such a format and such a structure of the program of additional chemical education allow students to form ideas about a single chemical picture of the world, its materiality, the reasons for its diversity, and also enable students to master the chemical content well and understand the role of chemistry in the system of sciences about nature and biological processes. The structuring and logic of programs help to apply logical operations of thinking in teaching, such as synthesis, analysis, analogy, comparison, generalization and systematization. Indeed, the authors of the monograph "Cognitive Pedagogy: e-learning technologies in the professional development of a teacher" [25] note that in modern conditions of implementation in practice higher education, modern information and communication technologies, training programs that provide pedagogical interaction and feedback on its results, as external forms of organization of the learning environment and educational communication, "it is forgotten that these topics reflect only external forms of organization of the learning environment and educational communication, itself the essence of learning processes remains aside" [25]. They emphasize that, within the framework of cognitive didactics, the role of the teacher is to create conditions leading to the development of individual cognitive abilities and tools of human cognition, especially when it comes to the formation of a single picture of the world in students [26, 27].

In order to implement the national projects "Education" and "Science", the successful implementation of the Strategy for the scientific and technological development of Russia [22] and the implementation of early vocational guidance of students [28] within the framework of advanced training courses for chemistry teachers and the training of undergraduates with speciality 44.04.01. "Pedagogical education, profile - chemical education" on the basis of the Kazan Federal University were prepared and tested electronic educational resources "Improving the professional competencies of a chemistry teacher" (<http://edu.kpfu.ru/course/view.php?id=1332>) and "Educational practices with gifted students" (<https://do.kpfu.ru/course/view.php?id=5313>; theme 2), as well as digitized programs of additional education on the example of theoretical and experimental training at the Small Chemical Institute, who were successfully approbated with pupils of grades 8-11 of the IT-Lyceum and Lobachevsky Lyceum Kazan Federal University.

The purpose of our study was to identify the attitude of chemistry teachers to the system of additional education and to solve the problem of maximum use of the information received in the process of building new programs of additional education in the process of training and advanced training of chemistry teachers on the use of digital technologies in the process of organizing extracurricular activities of students.

3 Analysis of basic experimental data to ensure the quality of higher education in chemistry

At the beginning of the 2020-2021 academic years, we conducted a survey of chemistry teachers in Kazan and the municipal districts of Tatarstan. A total of 120 teachers were interviewed. Of these, 68 teachers from rural schools, 28 from urban schools (11 of them are teaching in Kazan), as well as master's degree teachers – 24.

All answers were analyzed and ranked by teaching experience. Master's degree teachers studying at the Alexander Butlerov Institute of Chemistry at the Department of Chemical Education, entered the category of young teachers who have been working at school for no more than 5 years.

The first question about the employment period of the respondent made it possible to determine the percentage of teachers with different pedagogical experience and, accordingly, the opportunity to identify a pattern: does the acquired experience of work in school affect the teacher's attitude to the use of additional education technologies? Analysis of the results revealed that such a pattern is not observed.

However, to the question "Do they use extracurricular educational activities in chemistry in their professional activities?" 97% of teachers answered positively. If we consider the answers through the prism of work experience, then 84% of teachers with work experience of up to 5 years answered "yes", and 100% of teachers with work experience of 5 years or more answered that they use extracurricular activities in their work (Figure 1).

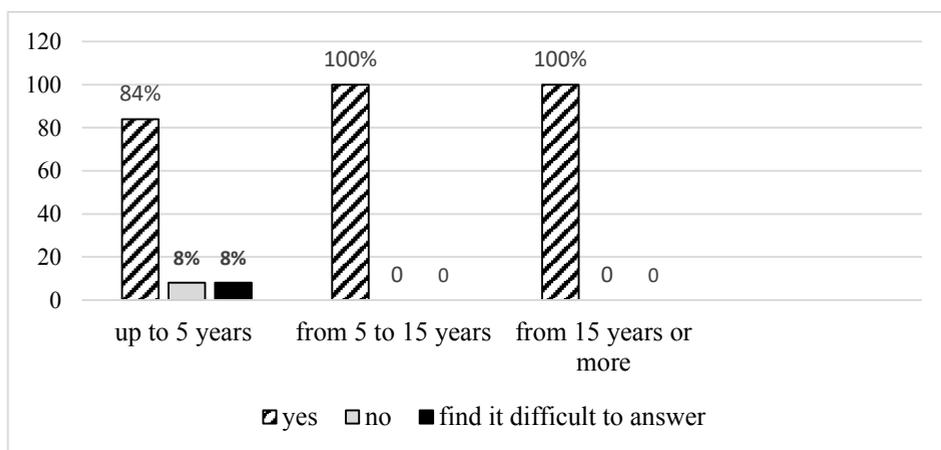


Fig.1. Do you use extracurricular educational activities in chemistry in your professional activities?

An analysis of the question of ways to search for information in the process of preparing a project for extracurricular educational activities in chemistry showed a slight difference between young teachers and teachers with work experience. Differences were revealed only in the use of the prevailing method of information retrieval (Fig. 2).

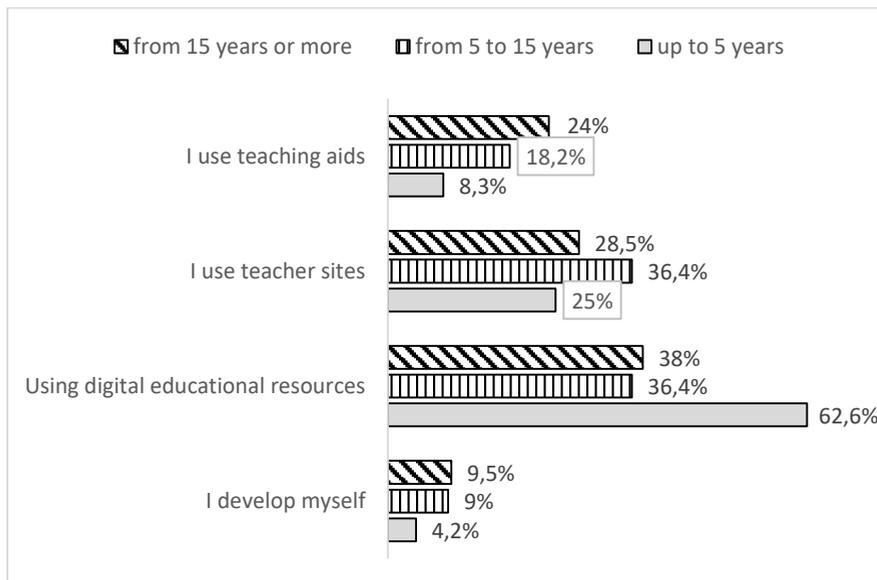


Fig.2. Where do you get information for extracurricular educational activities in chemistry?

Figure 2 show that all teachers prefer digital educational resources. These are 62.5% of respondents with experience of up to 5 years, 36.4% and 38%, respectively, with experience of 5 to 15 and more than 15 years. Teachers' websites and teaching aids are more often used by teachers with work experience of 5 to 15 years; this is 36.4% and 18.2%, respectively. A small number of teachers independently develop extracurricular activities: among undergraduates with work experience of up to 5 years, only 1 person, among teachers from 5 to 15 years - 2 people and 7 teachers with work experience of more than 15 years.

The results of the survey also showed that many teachers use extracurricular activities in their teaching activities. When asked how often they organize educational activities in chemistry, 8.3% of respondents say that they do it once a week, 25% once a month, 46.6% every six months, 16.6% once a year and 3, 5% do not carry out extracurricular activities at all. Thus, in general, teachers prefer to carry out extracurricular activities every six months (Fig. 3).

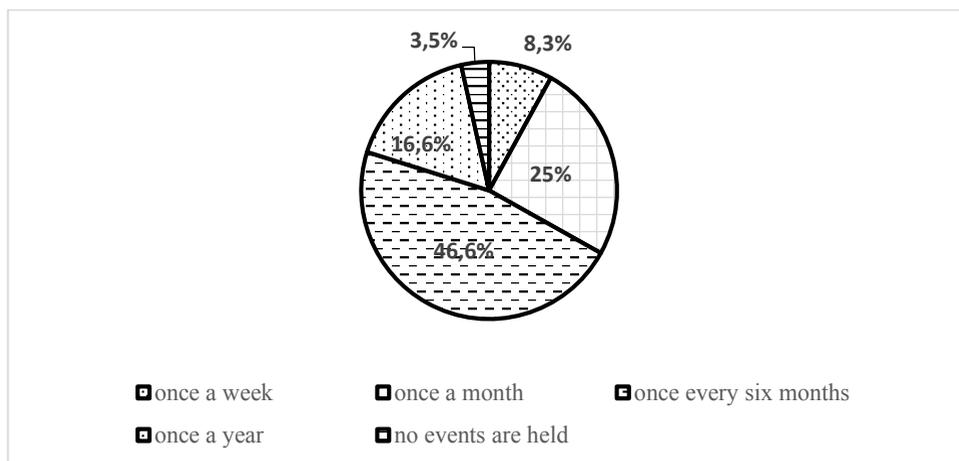


Fig.3. How often do you conduct extracurricular educational activities in chemistry?

We asked the same question to future chemistry teachers. The result can be seen in Figure 4, which shows that the majority chose the options “once a week” - 42.1%, “once a month” - 47.4% and “once every six months” - 10.5%. Moreover, the majority plans to conduct extracurricular activities once a month - this is 47.4% of the respondents. This may be due to the fact that future teachers often idealize their teaching activities, and teachers who have been working at school for a sufficient amount of time correctly assess their strength and time.

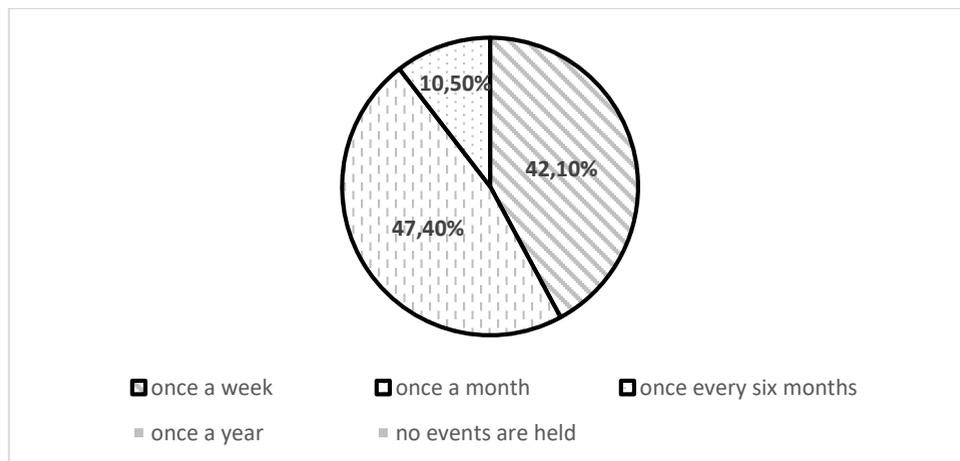


Fig.4. How often do you plan / want to conduct extracurricular educational activities in chemistry in the classroom?

In the course of the analysis of the experimental work, 120 teachers who directly work in schools in the city of Kazan or Tatarstan, as well as graduates - future chemistry teachers, were interviewed. The survey showed that work experience has little effect on the attitude and use of additional education in teaching. 97% of teachers conduct extracurricular activities with students, of whom the majority, and this is 46.6%, conduct them every six months. Future teachers plan to conduct extracurricular activities once a month, 47.4% of students chose this option.

4 Conclusions

So, in the context of cognitive pedagogy, it can be stated that:

- in the current state of intensive knowledge generation, great importance is attached to the development of the system of additional education, in which special attention is paid to studying the process of individual acquisition and transformation of cognitive information by students;

- the use of the developed and tested structure of the program of additional chemical education in accordance with the Regulation on the additional developmental program allows students not only to firmly master the chemical content, but also to understand the role of chemistry in the system of sciences about nature and biological processes. This contributes to the formation of their idea of a single picture of the world, its materiality and the reasons for diversity. The structuring and logic of the implementation of programs help to apply in teaching logical operations of thinking, such as synthesis, analysis, analogy, comparison, generalization and systematization;

This study cannot claim to fully consider the complex and multifaceted problem of organizing additional chemical education in the context of intensive knowledge generation.

The problems of cognitive modeling of conceptual, conceptual, procedural, structural and content characteristics of the organization of programs of additional chemical education seem to be important for further scientific research.

References

1. S.I. Gilmanshina, F. D. Khalikova, *The European Proceedings of Social & Behavioral Sciences*, **12**, 50 (2016).
2. I.R. Gilmanshin, S.I. Gilmanshina, *IOP Conference Series: Materials Science and Engineering*, **240**, Art. 012022 (2017).
3. Y. Azimov, I. Gilmanshin, S. Gilmanshina, *IOP Conference Series: Materials Science and Engineering*, **134**, Art. 012003 (2016).
4. Federal Law of December 29, 2012, No 273-FL (ed. from 27.12.2019) "Education in the Russian Federation".
5. Conceptual foundations of additional education. Systemic interaction of general and additional education to work with gifted children. Access mode: <http://aracy.pf/files/documents/44-redaktor/kursy/pechenkina.pdf> (access date: 12.05.2020).
6. Development programme of the supplementary education for children for 2012-2017. Access mode: <https://shkola0419.ucoz.ru/ld/3/355-.pdf> (access date: 23.05.2020).
7. Essence and specificity of additional education. Access mode: https://revolution.allbest.ru/pedagogics/00237313_0.html (access date: 22.05.2020).
8. E.B. Evladova, L.G. Loginova, N.N. Mikhailova, *Supplementary education of children* (Moscow, VLADOS, 2004).
9. S.G. Kosaretsky, M.E. Goshin, A.A. Belikov et al., *Additional education of children in Russia: unified and diverse* (Moscow, HSE, 2019).
10. T.V. Liskina, N.S. Paulsen, *Bulletin of Baikal State University*, **28** (1), 131 (2018).
11. A.V. Zolotareva, *Yaroslavl Pedagogical Bulletin*, **4**, 46-53 (2015).
12. N.V. Ozhegova, *Scientific Almanac*, **5-2**(19), 231 (2016).
13. V.V. Abraukhova, *Innovative approaches in the activities of an institution of additional education as a means of its development* (Rostov-on-Don, 1997).
14. N.M. Zhuljabina, *Additional education of children abroad: understanding, politics, regulation* (Moscow, NRU HSE, 2017).
15. *International Standard Classification of Education 2011* (Montreal, Canada, UNESCO Institute for Statistics, 2013).
16. European education system. Access mode: <https://bambinostory.com/evropeyskaya-sistema-obrazovaniya/> (access date: 12.03.2019).
17. D.S. Molokov, *Yaroslavl Pedagogical Bulletin*, **2**(1), 225 (2013).
18. A bright thirtieth anniversary: a new stage in the development of education in China. Access mode: http://russian.china.org.cn/Sci-Edu-Cult/txt/2008-10/13/content_16605970.htm (access date: 25.09.2018).
19. The concept of modernization of additional education for children of the Russian Federation for the period up to 2020. Access mode: <http://static.government.ru/media/files/ipA1NW42XOA.pdf> (access date: 25.02.2019).
20. National project "Education". Access mode: <https://edu.gov.ru/national-project> (access date: 03.03.2019).
21. National educational initiative "Our new school". Access mode: http://uozato.ucoz.com/docs/nasha_novaja_shkola.pdf (access date: 03.03.2019).
22. E. Levina, A. Kamaleeva, L. Mukhametzhanova, *ARPHA Proceedings*, **3**, 1449-1464 (2020).

23. Regulations on additional general educational developmental program. Access mode: <http://ddt1.ru/wp-content/uploads/2018/05/Положение-о-дополнительной-общеобразовательной-общеразвивающей-программе.pdf> (access date: 13.04.2019).
24. Chemical Supplementary Education Programme. Access mode: <https://pandia.ru/text/79/426/29693.php> (access date: 20.05.2020).
25. S.F. Sergeev, M.E. Bershadsky, O. M. Chorosova et al., *Cognitive pedagogy: e-learning technologies in teacher professional development* (Yakutsk, Russia, 2016).
26. S.F. Sergeev, Educational technologies, **4**, 28 (2010).
27. A.R. Kamaleeva, L.Yu. Mukhametzyanova, N.A. Nozdrina, Science and Technology, **1**, 102 (2019).
28. S.I. Gilmanshina, R.N. Sagitova, I.R. Gilmanshin, A.R. Kamaleeva, *IOP Conference Series: Materials Science and Engineering*, **240**, Art. 012023 (2017).

Quality of the master's program: factors and regulatory framework

Natalia Vlasova, Dmitriy Karkh

Ural State University of Economics, 620144, 8 Marta Str., 62, Ekaterinburg, Russia

Abstract. The quality of educational programs and the assessment criteria is a debatable point. Universities pay special attention to the management and evaluation of the master's program quality to improve competitiveness. Approaches to an external and internal assessment of the quality of master's programs have changed over the past 20 years in Russia. The paper analyses the approach to internal university monitoring of the master's programs, taking into account external requirements and all stakeholders' opinions. The analysis of the preferences of employers and students allowed us to determine the parameters of internal monitoring of the quality of master's programs. Focused interviews with representatives of local government bodies allowed to identify the blocks of disciplines that need to be further integrated into the master's program in public administration. It is emphasized that the approach to quality assessment should be more flexible in order to respond to the challenges of the external environment.

1 Introduction

The current state of development of the Russian educational system is characterized by the need to improve the quality of the educational programs. This concerns the degree of employers' satisfaction with the quality of graduates' training and the need to increase the competitiveness of Russian universities in the world. All stakeholders of the educational process have taken steps to improve the quality of education in recent years. The government in the framework of the national project "Education" adopted a Federal project "Export of education", whose goal is ensuring the global competitiveness of Russian education, the entry of the Russian Federation among the 10 leading countries in quality of education. Also new approaches are being developed to strengthen the quality of the Russian education system. The interaction of educational organizations, quality assurance organizations, employers, and their associations, as well as public sectors that carry out activities in the field of education, is expanding and taking new forms.

However, there remains the problem of the concept of the quality of education, the factors that affect the quality of education. Discussions about the factors and criteria for the quality of higher education have been going on for a long time. When developing approaches and criteria for internal quality monitoring of the master's program, it is necessary to be guided by the requirements of Russian legislation, take into account the opinions of employers, students and teachers, as well as predict future global and local changes that may affect the necessary qualities of graduates. The pandemic has

dramatically changed the learning environment, accelerated the introduction of ubiquitous online learning, and further actualized the need for a digital component in master's programs, including Public Administration programs.

2 Materials and Methods

Many factors affect the quality of education. In addition, the assessment can be carried out according to different parameters. The main causes that determine the diversity of definitions of «quality education» can be attributed to the multidimensional nature of quality of education (quality of results; quality of opportunities educational systems that ensured results; quality of the educational process and so on) [1].

The quality of the educational program can be considered from different points of view:

- meeting the educational needs and demands of the individual, society, and the state;
- the quality of the processes, activities and results of the implementation of the educational program;
- the effectiveness of educational activities (effectiveness in terms of the quality of the educational program, the pedagogical, managerial, organizational and economic efficiency).

We will highlight the features of assessing the quality of education:

- multi-criteria quality of education. The quality of education is evaluated in various subjects according to numerous sets of criteria (quality of results, quality of the educational process, quality of the subjects of education);
- assessment of quality of education runs a variety of stakeholders – students, alumni, and parents are the customers of education in a particular educational institution, society, public authorities, employers, representatives of the education system (teachers, organizers of education); All this leads to a certain bias and variability estimates.
- multilevel of educational outcomes (quality of training of graduates of various educational levels).

All elements and actors of educational process are important for its quality. The authors note the crucial importance of teachers' involvement and motivation for the quality of teaching [2]. It is possible to detail the entire learning process, including the selection of applicants, different types of training, assessment procedures, a variety of social activities, etc. For example, Lucander and Christersson distinguished the five phases of the process for quality assurance of assessment [3].

Students' motivation and their involvement in research and social activities are also important factors of students' satisfaction. The ability of students to carry out research and involvement in teaching-learning process had the high influence in decreasing student dissatisfaction [4]. The introduction of the research element in the learning process is important not only for the formation of students' research competencies, but also for increasing university competitiveness as a research center [5].

There is also an external and internal assessment of the quality of the educational program [6].

Internal evaluation is conducted by the educational organization. The main objectives of the internal assessment system are to determine whether the education provided meets the needs of individuals and society; to ensure the openness and accessibility of information about the university educational activities; to provide stakeholders with reliable information; to improve the competitiveness of educational programs.

The achievement of the objectives of the internal system of education quality assessment is implemented by performing the following tasks in the field of education quality assessment:

- Identification of factors influencing the quality of education.

- Analysis of the quality of implementation of normative documents in the field of education, acts of the rector, academic council of the university, faculty, etc.
- Formation of a common approach to the criteria for the quality of education and approaches to its measurement.
- Formation of a system of analytical indicators that allows to analyse and to increase the quality of education.
- Development and implementation of an effective system for monitoring, analysing and evaluating the quality of students training.
- Analysis of educational services quality and assessment of conditions of educational process (determination of the degree of compliance of the conditions of implementation and realization of educational process and educational programs to the Federal requirements).
- Evaluation of effectiveness of educational programs, methods and technologies; evaluation of quality management education.
- Development of forms of participation of stakeholders in the management and improvement of the quality of education.
- Preparation and adoption of informed management decisions on improving the quality of education, the effectiveness of the university - information support of the process of making management decisions on the problems of improving the quality of education.

A particular role in internal assessment is assigned to the assessment of the staff professional competencies within the framework of general professional competencies, educational, and research activities.

The system for receiving feedback on the quality of the implementation of educational programs includes regular surveys of students, teachers, and employers. Close communication with employers is an important condition for the quality of training, which is confirmed by many researchers [7].

This can include such procedures as assessment of the quality of teaching, surveys of members of state examination commissions, graduate and employer surveys.

A feedback system on the quality of graduate training should be based on general principles:

- Regularity of receiving feedback.
- Combining different ways to get feedback from the main groups (employers and graduates).
- Comparability of the information received (standardized questionnaires).

The performance of the internal evaluation of the quality of education is shown in the following:

- Forming the most objective evaluation of the quality of training of students according to the results of mastering educational programs.
- Improving the structure and updating the content of educational programs implemented at the university.
- Improving the resource support of the educational process at the university.
- Improving the competence and skill level of the university scientific and pedagogical staff involved in the implementation of educational programs.
- Increasing the motivation of students.
- Strengthening the interaction of the university with relevant enterprises, institutions, and organizations on improving the educational process.
- Increasing the responsibility of the heads of structural divisions for the quality of training of students.
- Unification of approaches to the independent assessment of the quality of training of students through the standardization of assessment tools and procedures.

- Providing the structural divisions of the university with objective information about the level of training of students to make informed management decisions on the problems of improving the quality of educational services.

- Identification of factors affecting the quality of educational services in order to take timely measures aimed at improving the efficiency and quality of the university's educational activities.

- Improving students' self-organization with objective data on their academic achievements.

- Ensuring the openness and accessibility of information on the quality of educational services and on the educational achievements of students for external and internal users.

If national accreditation is a prerequisite for the work of the university, then international accreditation is used in cases where the university seeks to increase its awareness and competitiveness in the world market. Blanco argued that symbols associated with accreditation or ranking is important for the university [8].

3 Results and Discussion

The quality assessment system in the Russian Federation is based on a combination of various evaluation mechanisms:

- External and internal procedures for evaluating the educational process and its results.

- Procedures for receiving feedback from various participants in educational relations about the quality of educational services (such stakeholders include, first of all, students, graduates, and key employers).

The procedures for evaluating the quality of educational programs in Russia are divided into external and internal. Internal evaluation procedures and tools include:

- Regular self-examinations of educational programs, including quality assessment according to special criteria.

- Annual self-examination of the educational organization as a whole (the results of reports on the results of self-examination are used, among other things, in monitoring the activities of universities of the Ministry of Education and Science of the Russian Federation).

- Procedures for independent evaluation of students' educational results.

- Final state certification of final year students of all educational programs-it is carried out by an authoritative commission, which includes external experts from third-party educational organizations, representatives of employers.

External procedures and institutions include:

- Different types of accreditation and certification.

- Independent examination of educational programs, including with the involvement of international experts.

Accreditation is a process of recognizing the quality of education following the norms and quality standards of the accrediting organization. If these standards are set by the state (through the federal state educational standards), then accreditation is called state.

International accreditation is the recognition by a reputable international organization of the compliance of an educational organization, a set of its programs, or a separate educational program with certain international standards of quality of education.

By the Russian legislation, obtaining state accreditation for educational institutions, in contrast to licensing, is optional and takes place on an application basis, but the public status of an accredited educational institution is higher than that of an uncredited one (especially for non-state institutions). The legislation contains mechanisms for motivating educational institutions to obtain state accreditation, primarily due to the benefits and rights of students provided for by law.

A list of 11 indicators is used for the accreditation of higher education institutions in Russia, which now can be considered sufficient for an integrated assessment of the effectiveness of the university and its attribution to the type of institutions of higher professional education and one of the specific groups. As higher education develops and socio-economic conditions change, the system of indicators may change.

The current system of indicators for institutions of higher professional education includes quantitative and qualitative indicators that are evaluated by experts in the course of an external assessment of an educational institution. The system of indicators also takes into account the dynamics of the development of the educational institution in a certain period: the results over the past five years and the prospect of their stability in the coming years.

State accreditation acts as the main mechanism for guaranteeing the quality of education. At the same time, the quality of education is considered not only as a philosophical category but also as an existing property of an educational institution - a set of necessary and sufficient signs and criteria that allow us to establish the quality of education.

If a public organization and/or a professional community set the quality standards, such accreditation is called public (professional-public).

Depending on whether the quality of an individual program or the entire university (its division) as a whole is recognized, accreditation can be programmatic or institutional.

Public (professional-public) accreditation can be carried out by both Russian and international accreditation organizations and agencies.

A special type of accreditation is certification — in this case, the educational program is recognized as meeting the quality standards and leading the training of such a level that is necessary for its graduates to receive professional certificates (either with subsequent passing of certification exams without additional training or with exemption from them).

Independent expertise is a variant of external evaluation of the quality of educational programs, a kind of "audit", which is carried out by an expert commission consisting of professionals recognized in this scientific and/or subject area. Often, the selection of experts and the organization of expertise is taken over by an external organization.

Based on these principles the monitoring of Master's degree programs was introduced in the Ural State University of Economics. The monitoring system includes the following indicators:

- International and professional accreditation.
 - Availability of evaluation materials for the current and intermediate certification.
 - The existence of assessment materials for the competences.
 - Compliance of the evaluation criteria with the Federal requirements.
 - International component (attraction of foreign staff, courses delivered in English).
 - Strategic partnership with the employer.
 - The number of teaching staff, trained at enterprises
 - The number of faculty from among managers and employees, strategic partners.
 - Staffing (share of PhD; share of young teachers up to 35 years).
 - The number of simulators, licensed programs, and other software products aimed at improving the practical skills of students.
 - The number of disciplines implemented using distance learning technologies and electronic educational resources.
 - The percentage of students who are satisfied with the quality of the implementation of the program (determined by regular questionnaires).
 - Students' participation in the scientific activities (conferences, workshops, etc.).
- Students' publications activity.

- Implementation of project activities initiated by the employer in the scientific and educational sphere, with the students' participation.

- Availability of laboratories, the number of disciplines implemented with their use.

- Number of R & D contracts.

The monitoring section on distance education was strengthened, partly due to existing experience and global trends, and partly due to the reality of the pandemic [9, 10].

The results of monitoring should be taken into account when updating master's programs.

When analyzing certain master's programs, general changes in the world and in the country should be taken into account, so that the program meets the most modern requirements.

Our focus was the Master's degree programs in public administration in the Ural State University of Economics. The content of the programs was determined based on Russian standards and requirements, taking into account foreign experience [11-13].

Digitalization is changing the principles and approaches of public administration in the modern world [14, 15]. There is the federal project "Digital Public Administration" within the framework of the National Project "Digital Economy" in the RF (until 2024).

This regulatory framework, as well as in-depth interviews with representatives of local and regional administrations, identified the need to strengthen the digital competencies of graduates. When reviewing the structure of the master's program in public administration, it is necessary to strengthen all aspects of digitalization, adding following program modules:

- Digital technologies and platform solutions in public administration.
- Working with open data.
- Cloud technology for efficient, transparent and productive governance.
- Digital Security.
- Smart region and smart city.
- Digital technologies for public participation in governance.
- Government services digitalization.

It is planned to develop new master's programs: "Digital Governance" or "Public Administration in the Digital World".

4 Conclusion

A comprehensive educational concept requires an all-comprehensive strategy for quality assurance.

In accordance with the Russian legislative framework employers, their associations may carry out professional and public accreditation of professional education programs as well as organizations authorized by them. At the same time, the quality and level of training of graduates must meet the requirements of professional standards.

The internal assessment of the quality of educational programs allows quick response to various changes.

When developing and updating educational programs, it is necessary to take into account new trends, including digitalization in all spheres, including education. The pandemic has rapidly and universally changed educational technologies and is gradually leading to the introduction of new approaches to assessing learning outcomes.

References

1. A. Androniceanu, *Adm. si Manag. Public.* **25** (2015)
2. L. Sharma, M. Srivastava, *J. Appl. Res. High. Educ.* **12**, 4 (2019)

3. H. Lucander, C. Christersson, *Qual. High. Educ.* **26**, 2 (2020)
4. M. Arefi, M. Heidari, G. S. Morkani, K. Zandi, *World Appl. Sci. J.* **17**, 3 (2012)
5. Y. Cai, *Rev High Ed.* **40**, 4 (2017)
6. M. Seyfried, P. Pohlenz, *Eur. J. High. Educ.* **8**, 3 (2018)
7. A. Zehrer, C. J. Mössenlechner, *Teach. Travel Tour.* **8**, 1 (2008)
8. G. L. Blanco, A. S. Metcalfe, *Rev High Ed.* **43**, 3 (2020)
9. H. Abuhassna, W. M. Al-Rahmi, N. Yahya, M. A. Z. M. Zakaria, A. B. M. Kosnin, M. Darwish, *Int. J. Educ. Technol. High. Educ.* **17**, 1 (2020)
10. N. Almusharraf, S. Khahro, *Int. J. Emerg. Technol. Learn.* **15**, 21 (2020)
11. G. Morçöl, M. Tantardini, A. Williams, D. R. Slagle, *Teach. Public Adm.* **38**, 3 (2020)
12. H.M. Raboca, *MCCS.* **2** (2011)
13. C.S. Sarrico, A.A. Alves, *High Educ (Dordr).* **71** (2016)
14. R. Pérez-Morote, C. Pontones-Rosa, M. Núñez-Chicharro, *Technol. Forecast Soc. Change.* **154** (2020)
15. J. D. Twizeyimana, A. Andersson, *Gov Inf Q.* **36**, 2 (2019)

Teachers' professional growth as a condition for improving the quality of higher education in the context of global and Bologna dimensions

Tatiana Zabelina, Ekaterina Spiryagina

Institute of Pedagogy, Psychology and Social Problems, 420039, Isaeva Str., 12, Kazan, Russia

Abstract. The main factor of competitiveness and attractiveness of Russian higher education is its quality. Currently, the most relevant trend in the development of education is globalization. One of the central figures of this process is the teacher. It should be noted that the system of professional growth of the teacher is focused on the main goal—improving the quality of education. The global trends of globalization impose new requirements on the personality of the teacher, who must be a creative individual, have original, problem-pedagogical and critical thinking, be able to create multi-variant programs, relying on the best world experience and new teaching technologies, applying them in practice. In this article, a study will be conducted to identify the attitude of teachers of one of the educational organizations to the above-mentioned changes; conclusions are drawn about the impact of innovations on the professional growth of teachers; the main directions of development in the future are outlined.

1 Introduction

The present time is characterized by the acceleration of the pace of life, the updating of information and increasing digitalization. As a result, the requirements for a modern teacher are also changing. It becomes necessary not only to meet professional requirements, but also to increase the flexibility of one's thinking, the level of one's own development, to be able to quickly navigate in the social space and quickly respond to any innovations [1]. In the process of studying the scientific literature, the personal qualities of a modern high school teacher in the conditions of digitalization were determined, including: creativity, sociability, adaptability, stress resistance, mobility, and flexibility of character.

The transition to market relations and integration of the Russian education system into the European Higher Educational Area objectively requires improving the quality of vocational education, a higher skill level and competitiveness of a specialist early in his life, which in itself becomes a factor of social protection in the new economic conditions [2]. There are objective difficulties in implementing the key conditions of the Bologna process, which include: the introduction of a three-level structure of higher education, issues of academic and professional recognition of qualifications, internal and external quality assurance. All this is also superimposed on the process of digitalization of education.

Teachers are required to purposefully improve their professional level and skills in accordance with modern requirements, to use in teaching not only traditional, but also innovative methods and forms of organizing training, educational technologies and means of evaluating results. The solution of such common tasks as improving the quality of higher education, ensuring the possibility of obtaining additional education and continuous professional development throughout life, as well as the implementation of the variability of educational programs that would ensure the individuality of the trajectory of personal development, is relevant not only for foreign education, but also for our country due to its internal needs. The Russian higher school started to solve these problems in stages before joining the Bologna process and will continue to work on them during this process. [3]

The Open European Higher Education Area (EHEA) has serious prospects that certainly take into account our diversity, but it requires constant efforts to remove existing barriers, as well as a framework for teaching and learning that would promote mobility and even closer cooperation [5].

Once again, we emphasize that changes will occur in the context of digitalization of higher education. At the same time:

- digitalization has a transformative power in a global sense, but it must be considered together with the institutional mission and goals of research, education, and services for society. ;

- issues of digitalization should be considered in the broader context of the educational goals of universities;

- they should be mastered by teachers;

- digitalization can seriously change the traditional educational mission of universities, so we need to pay special attention to the optimization of the educational process [6]

The Progress Report on the implementation of the Bologna Process (2018) pays special attention to the effective use of national advantages of digital technologies: "This task meets the challenges faced by higher education systems and means new opportunities offered by modern technologies. Digital technologies are developing very quickly, so the inability to "pick up the idea" can result in the emergence of graduates whose skills do not quite meet the needs of the labor market" [7].

In order to use new technologies effectively and efficiently, certain conditions must be met: the availability of material resources, personnel and infrastructure; digitalization of curricula; trust in the quality of education obtained with the help of new tools. These measures require strategic planning, changes in the legal environment, and funding [7].

2 Methods of research methodology

Among teachers, students, managers, and in broad circles of society, the Bologna process has caused ambiguous and heated discussions. The main topics raised were the decline in the quality of education, violations of academic ethics, manifestations of inattention to the facts of fraud, corruption and plagiarism, violations of the norms of university autonomy and academic freedoms.

In this regard, the author of the article conducted a pilot study on the topic "Self-assessment of the level of professional development of university teachers". The general population was made up of teachers of the Kazan State Power Engineering University. Sample population (volume-35 respondents, including 3 vice-rectors). A semi-formal interview was chosen as the research method.

One of the semantic blocks of this survey included questions concerning the attitude of representatives of the teaching staff to the reforms of higher education in the framework of the Bologna process, as well as the readiness to implement in practice the main goals and objectives of this process. The main objectives of the discussion were:

- to identify the assessments of university managers and teachers on the acceptability of the main provisions (principles) of the Bologna Declaration for Russian higher education institutions;
- analysis of the views of rectors and teachers on the conditions (options) for the modernization of higher education in the light of the Bologna process;
- obtaining prognostic assessments of university managers and teachers on the positive and negative consequences of Russia's accession to the Bologna Process;
- identification of common and special positions in the positions of university leaders and teaching staff on topical issues of higher education in the light of the requirements of the Bologna Process;
- attitude to the elimination of departmental disunity of educational institutions and the merger of universities with academic research institutes;
- assessment of the impact of the Bologna Process on the export potential of Russian universities.

3 Discussion and analysis of the results

The results obtained allowed us to identify three main groups of teachers who demonstrate a different attitude to the ongoing transformations:

1. A significant part of the respondents (60.2%) have a negative attitude to the reforms in the field of higher education. They express concerns about the loss of the quality of Russian education and the fundamental nature of higher education in connection with the implementation of the foundations of the Bologna process.

It is known that one of the main requirements of foreign partners to the Russian system of higher education — issue domestic universities diplomas, which could be the most comparable generally accepted documentation of completion of appropriate schools or courses listened. This will allow mutual recognition in the participating countries of the university educational and scientific qualifications obtained in Russia. We are talking about the recognition of entries in Russian university diplomas and their appendices abroad.

If the diploma of a Russian university indicates a specialty that has no analogues in Europe or America, then the international prestige of the Russian higher school will fall, making it difficult for the holder of such a diploma (for example, a foreigner who studied in Russia) to enter the foreign labor market. The same applies to the unification in the names of the disciplines studied in universities (training courses), which are indicated in the appendices to the diploma.

The respondents also noted the problem that concerns them, which is that the income level of highly qualified specialists in Russia and in Europe is very different, so we can assume a possible "brain drain" from Russia. It is logical that graduates will strive for the best working conditions that can be provided by economically developed countries, most often Western Europe or North America. The reasons are obvious: low wages, lack of opportunities to engage in scientific activities. This problem is urgent and requires close attention.

We think that such a negative attitude to the unified ("Europeanized") applications to the diploma of Russian higher education can be explained by the following: the problem of forgery of diplomas of Russian universities, as well as other educational organizations, is widespread, which leads to the discrediting of Russian documents on the received education. If employers (both Russian and foreign) have no complaints about diplomas issued during the Soviet period (their reliability, as a rule, is not in doubt), then modern Russian diplomas are treated with caution, and this is quite understandable.

In the Internet, you can easily find offers for the sale of diplomas from various universities on state numbered forms with the corresponding appendices to the diploma,

academic certificates, etc. Documents (certificates) about the completion of educational organizations of secondary vocational education are also sold.

Representatives of the first group believe that domestic higher education remains the best in the world and should not be guided by foreign models, since they pursue different educational goals. This question concerns the three-level education system, and in particular, the situation of graduates with bachelor's degrees. Many experts believed that the transition to such education in Russian universities is possible only in the distant future, and even assessed this principle as completely inappropriate and destructive for Russian higher education.

The arguments of the opponents of the three-level education system boil down to the fact that the Russian labor market is not ready for the use of bachelor students who have studied for four years. This issue is still controversial. The problem is in the stereotype of minds of Russians that a bachelor's degree is an under-trained specialist who will find it difficult to find employment in the labor market. Basic knowledge that would allow performing professional functions is obtained during 4 courses. As a rule, the master's degree gives a deeper specialization, focuses on research or teaching work. It is important to note that a bachelor's degree is a completed higher education, and a graduate with such a diploma has every right to apply for a good position.

The main drawback of the bachelor's degree is revealed in the employment of graduates. Many employers are wary of the bachelor's degree qualification, as there is an association with secondary vocational education in connection with the practical orientation of their activities. That is, some employers consider such qualifications as incomplete higher education and are reluctant to give jobs to such personnel. Of course, this opinion is erroneous, since the main question is the purpose of training: does the student want to devote himself to the scientific field, or does he want to master the chosen profession by obtaining a bachelor's degree. But as practice shows, not all employers are ready to adapt to a new way of thinking. In addition, there is a sharp competition between graduates with a bachelor's degree and those who have completed a master's degree and a specialty. Often, the employer prefers the latter two, since secretly specialist and master's degrees win in comparison with the diploma of bachelor's graduates.

In the West, where enterprises are willing to accept graduates with bachelor's degrees, as there is a developed system of additional training. Many Western employers prefer to raise personnel specifically for their company, teaching the latest production technologies and professional secrets at the workplace and eventually getting the right ones [8].

In Russia, such a system was not formed historically and was introduced without taking into account the existing traditional system of education; It was assumed that a student studying in a bachelor's degree is preparing for executive functions in the industrial or socio-economic sphere, but, according to the first group, Russia needs higher-level specialists in order to maintain its scientific potential. Some teachers believe that as a result of the merger of the European and domestic education systems, a "hybrid" is obtained, which will only hinder the development of the higher education system.

Another issue of concern to the teaching staff: a single doctoral degree after graduate school — Doctor of Science or "Doctor of Philosophy", as is customary in the West (Ph. D., the symbol of a doctoral degree, regardless of the branch of science-natural, humanitarian, social, economic, etc. The Berlin Summit of the countries participating in the Bologna Process (at which Russia joined the Bologna Declaration) decided to extend European requirements and standards to doctoral degrees. Thus, we are talking about the possible rejection in the future of the two-tier system of candidate/doctor of sciences (as has already happened in a number of former Soviet republics), as well as from the Higher Attestation Commission as a state body of centralized control of the Russian standard of academic degrees and scientific titles. The first group was strongly opposed, in addition,

there is a problem that is widely known, but not officially advertised-the trade in candidate and doctoral theses, which are semi-legal goods of Russian universities. Moreover, doctoral dissertations are the most expensive commodity. This can deprive universities of significant income, and cannot be accepted by the majority of managers and members of specialized academic councils of Russian universities.

It can be concluded that such a negative attitude and conviction is due to the lack of awareness of a significant part of teachers about the development of higher professional education in the world and Russia, rejection and prejudice against the processes of Russia's entry into the world educational space.

2. The second group of respondents (28.7%) is in favor of this process, considering it an objective necessity associated with the integration of Russia into the world market. Representatives of this group note the high importance of academic mobility, which opens up real training opportunities in foreign universities for both students and teachers [9].

With respect to the requirement on the harmonization of records (names of fields) in the diplomas, the respondents consider it quite fair. This may serve as an additional argument in favor of the recognition of Russian qualifications in European countries [10].

The respondents also note that in the future, the European diploma supplement will make the educational degrees of future specialists more recognizable and recognized in Europe. Representatives of the second group are positive and are confident that a bachelor's degree from a Russian university will be recognized in the domestic or European labor market as a certificate of a sufficient level of professional qualification. They believe that our education can become more competitive, and graduates who have completed a bachelor's degree will have the opportunity to continue their studies in foreign universities and apply for a good position abroad.

Another significant advantage is that bachelors can already start a career in 4 years, solving the problem of lack of qualified personnel. In this regard, we note that a large percentage of graduates are employed after completing their bachelor's degree, while the rest continue their studies in the master's program [11].

The results obtained indicate a high degree of awareness of this group of teachers, their acceptance of the need for Russia to enter the world educational space, and a clear understanding of the future opportunities and prospects of participants in the educational process.

3. The third group of teachers (9.1%) is indifferent to the ongoing changes in the higher education system. Respondents express the opinion that these are processes that do not depend on them, and therefore they are so indifferent. This position, in our opinion, is also due to the poor awareness of teachers about the goals and objectives of the ongoing changes, a vague idea of the final results of these processes, as well as probably personal reasons (for example, professional fatigue). It is possible that such assessments are based on the lack of motivation for professional work at the university, which is associated with a low level of remuneration and ignorance of the prospects for career and personal growth of a certain part of the employees.

Several respondents avoided answering this question without explaining the reasons for refusing to express their own professional position.

So, we can sum up the following result:

1. The negative or indifferent attitude of the representatives of the teaching staff to the implementation of the basic principles of the Bologna process, in our opinion, is due to: a) the fear of negative consequences of changes for some teachers, including for themselves; b) a lack of awareness or a superficial understanding of the essence of this process.

These factors have a negative impact on the quality of education, as it is the teachers who ensure the development of new curricula and the preparation of teaching aids, organize the independent work of students, and so on.

2. A positive attitude to the reforms in the higher education system, on the contrary, has a positive effect on the learning process, enhances learning and strengthens the status of the University. Teachers who objectively assess the situation of higher education in the country are ready for innovations and contribute to their active implementation. As can be seen from the results of the survey, they have clearer prospects for professional growth and motivation than the representatives of the first group.

4 Conclusions

1. University teachers show an ambiguous attitude to the putting into practice of the main provisions of the Bologna process: The majority of higher education workers don't have an unambiguous perception of Russia's participation in the Bologna process.

2. A significant part of higher education workers have a negative attitude to the modernization of Russian education.

3. The level of readiness of teachers to implement the basics of the Bologna Process in practice remains quite low.

Thus, the professional and personal readiness of the teaching staff for real participation in the process of reforming higher education needs significant correction.

Despite a certain conservatism of the majority of the teaching staff regarding the preservation of the traditions of Russian education, almost a third of the surveyed heads of universities and half of the teachers are aware of the importance of changes for Russian universities

The European University Association sees the future transformation of the Bologna process as follows:

- more systematic and consistent reform through a new "peer support approach" that will focus on implementing quality assurance recognition and compliance with the qualifications framework;

- strengthening and updating the solution to the problems of social integration and equity, particularly based on the development, introduction and monitoring of a agreed set of policy measures within the framework of the European Higher Education Area strategy on the social dimension;

- respect for the university's fundamental values: academic freedom, autonomy, encouraging of civic values;

- increased focus on the transformation of the educational process, including its digitalization at an accelerated pace;

- expanding the range of topical issues and issues of common interest for European higher education institutions and countries that have adopted the Bologna Declaration;

- improving the "style" of reform implementation, which consists in more active participation of interested countries and specific universities. A style that uses the innovative potentials of higher education institutions, their ability to adequately set long-term goals in the face of dynamic complexity of problems and increasing levels of their consistency.

- compliance with the current accelerated changes that affect higher education [12].

The Bologna Process, in its essential design, represents a global transformation of national higher education systems in the direction of increasing their pan-European comparability, compatibility and comparability. It brings new philosophical and educational meanings to the rich academic culture of each country and aims at the qualitative improvement of higher education, making it adequate to the trends and rhythms of the rapidly developing knowledge economy, social and political challenges. It is important to emphasize that the constant goals of the Bologna Process are:

- psychological, pedagogical and didactic "re-equipment" of academic staff of universities;
- intensive updating of higher school didactics in the aspect of changing the pedagogical paradigm;
- a sharp increase in the social role of higher education and its diverse diversification;
- a fundamental extension functions of higher education institutions, which helps to implement the concept of "lifelong learning»;
- ensuring demographic and gerontological flexibility of educational programs, curricula and modules.

In our opinion, these measures are particularly relevant for overcoming the existing objective difficulties in Russian education, some of which were identified as a result of the survey.

The results of the research in this article are the basis for further work on the problem of the readiness of representatives of the faculty of higher education to integrate Russia into a single educational space. They can be used in the quality management system of the educational process, as well as to determine the content of additional professional education of the university faculty.

References

1. T.G. Zabelina. Collection of scientific papers «Human development in the era of digitalization", **1**. 118 (2020)
2. E.S. Koroleva. Collection of scientific papers «Human development in the era of digitalization", **1**. 207 (2020)
3. P.J. Mitchell, L.A. Mitchell. Social and Behavioral Sciences, **154**. 170 (2014)
4. Z.K. Kulsharipova, G.E. Nurymbetova. Materials of the international scientific-practical conference, **1**. 253 (2014)
5. P. Gaston.. Liberal Education, **94(4)**. 14 (2008). EUA's Initiatives to establish European Dimension on Learning and Teaching. Available at: <http://www.eua.be/Libraries/publications-homepage-list/background-paper-to-the-eua-bologna-statement-2018>
6. G. Neave. Managerialism and Evaluation in Higher Education, **7**. 11 (2016)
7. T.E. Lebedeva, E.E. Egorov, R.YA. Vakulenko. Life Science Journal, **11**, **10**. 533 (2014)
8. N. Maadad, M. Tigh. International Perspectives on Higher Education Research, Volume, **11**. **3** (2014)
9. J.M. Piro. Revolutionizing global higher education policy, innovation and the Bologna process, 254 (2016)
10. H. Join-Lambert, T. Kremneva. Cambridge Scholars Publishing. 203 (2014)
11. R. Keeling. European Journal of Education, **41**, **2**. 203 (2006)
12. T.M. Tregubova, A.S. Kats, L.A. Shibankova. Materials of VI International Forum on pedagogical education "Perspectives and priorities of pedagogical education in the era of transformations, choice and challenges". 309 (2020)
13. R. Kh. Gilmeeva, A. R. Kamaleeva, A. S. Katz, E. Y. Levina, and all. Cognitive pedagogy: teaching ai. 228 (2020)
14. Z. A. Bakar, A. Rafaquat. Materials of 2-nd International Seminar on Quality and Affordable Education. *ISQAE*. 536 (2013)
15. T. Karran. Education Policy, **22**. 163 (2009)
16. K. Ren. Higher Education Policy, **25**, **1**. 19 (2015)
17. L. Haukland. Journal of Further and Higher Education, **41**, **3**. 261 (2017)

Socio-psychological problems of the transition of university teachers to distance employment during the Covid19 pandemic

Anastasiya Pesha*, Tatyana Kamarova

Ural State University of Economics, 620144 Yekaterinburg, Russia

Abstract. The challenges of higher education that the world faced during the pandemic led to an emergency temporary transfer of faculty to a distance learning format. The article reveals the results of the analysis of socio-psychological problems that university teachers faced during the transition to remote employment. The work is based on a content analysis of previous studies of the issue, as well as data from a formalized online survey of faculty members of universities. The formalized survey was attended by 169 representatives of the teaching staff of universities in 10 cities of Russia. The article presents the main opportunities and disadvantages of remote employment and distance learning in higher education from the point of view of teachers. As a result of the study, the authors formulated the key opportunities and disadvantages of distance employment and identified the key social and psychological problems that require attention when organizing the activities of teachers. The labor market is changing, the requirements for the competencies of university professors are changing, it is necessary to systematically, strategically introduce changes by the administration when switching to a remote work format with a focus on the social and psychological well-being of employees.

1 Introduction

Currently, a large layer of research is devoted to the issues of automation and its influence on the change in the forms of employment of the population [1, 2, 3]. The onset of the economic era of knowledge and innovation, technological modernization and scientific advances provide a wide range of intelligent technologies and opportunities for their use in a new work format [4, 5]. Distance employment is one of the relatively new forms of work. For the first time the concept of "telework" was introduced by J. Nilles in 1973 [6]. Distance employment (telework) implies a form of employment in which the employee is outside the stationary workplace, performing work using modern means of communication, information and communication technologies (ICT) [6]. Currently, there are three main types of remote work - telework, work at home, and self-employment [7].

* Corresponding author: myrabota2011@gmail.com

With the onset of the spread of the coronavirus pandemic to the present, the recommendations of the world health organization to counter the consequences of the pandemic regarding the avoidance of social contacts lead to an increase in the number of people employed at home via the Internet and distance employment. So, according to Google Trends, the number of requests from 36 in January 2020 for the definition of "Remote work" in Russia increased to 100 at the end of March 2020. Serious changes have occurred during the pandemic and in the field of higher education. The organization of the activities of universities and teaching staff was transformed, all full-time education in the offline format was transferred to a distance form in a very short time [8, 9, 10]. Distance education as a form of providing educational services is not new and appeared in the 18th century [11]. Nevertheless, during the pandemic, distance learning acquired a new significance [10, 12, 13]. So, in the work of Bozkurt, A., & Sharma, R. C. the transition to distance learning during a pandemic is considered as "emergency distance learning", a temporary solution, poorly thought out and planned, which does not imply the creation of an effective educational environment. The authors note that the transition to truly distance learning should be strategically planned and justified [12]. Peshva, A. V., & Kamarova, T. A., having studied the feedback data of students on the rapid transition to distance education, revealed a number of problems they faced and low satisfaction with the quality of education during the pandemic [10]. The psychological problems caused by the transition to distance learning among teachers, students and their parents are revealed in the review and analytical work of Churiyah M. et al. [13].

Indeed, the transition to distance learning in a few days proved to be a real challenge for the higher education system and for all its stakeholders around the world. The article analyzes the advantages and disadvantages, as well as socio-psychological problems that teachers face when switching to a remote work format. The purpose of this article is to analyze the socio-psychological problems faced by teachers during the rapid transition to a remote work format.

This article complements the previous literature by (a) providing results of socio-psychological problems analyze that affect the implementation of teacher's remote work; (b) gives a list of opportunities and disadvantages of distance employment during the period of forced rapid transition to it for teachers.

Research methods: the research is based on modern concepts of science and practice of higher education, the concept of technological didactics, as well as labour economics. In particular, the authors applied the methods of content analysis and data interpretation in their work, an online survey of teachers about their satisfaction with the educational process and problems caused by the transition to distance learning during a pandemic.

2 Distance learning during the global challenge

In recent decades, remote work has become a trend in the labor market and is in great demand among subjects of social and labor relations. Even before the spread of the COVID-19 virus pandemic, which affected the health of a huge number of people around the world, the response to the development of ITC and the Internet was the spread of distance employment in many professional fields. The fact of amplification of this form of employment is associated with a number of its advantages: mainly - saving time (spent on the road to work and back) and money (travel costs, meals, etc.), independent distribution of working time and arrangement of the work space, combining work with caring for family members, and, importantly, the observance of the "work-life-balance", which in turn requires such competence as self-organization. Research results of employees working on flexible working hours, incl. remotely, show an increase in the level of job satisfaction and growth in labor productivity [14, 15].

In general, despite the advantages of telecommuting, a number of its disadvantages can be noted as social, for example, such as the absence of the usual offline communication, lack of feedback from colleagues; not being involved in the corporate culture of the company [16]; and organizational, for example, difficulties in self-organization during the working day [17, 18]; and health problems [19, 20].

Dictated by the challenge of the present, the widespread transition to distance learning requires the use of telecommunication technologies that can provide the necessary interconnection between all participants in the educational process and the bandwidth of data transmission networks [8, 10, 12].

Distance learning is training based on a learning management system (LMS) of a university using a wide range of ICTs. Here there is a transfer from teachers to students of the material on the course being studied, control over the assimilation of this material (checking control points, tests, credits and exams), as well as interactive interaction between teachers and students. Moreover, all participants in the educational process are at a distance from each other. The main elements of distance education are shown in Figure 1.

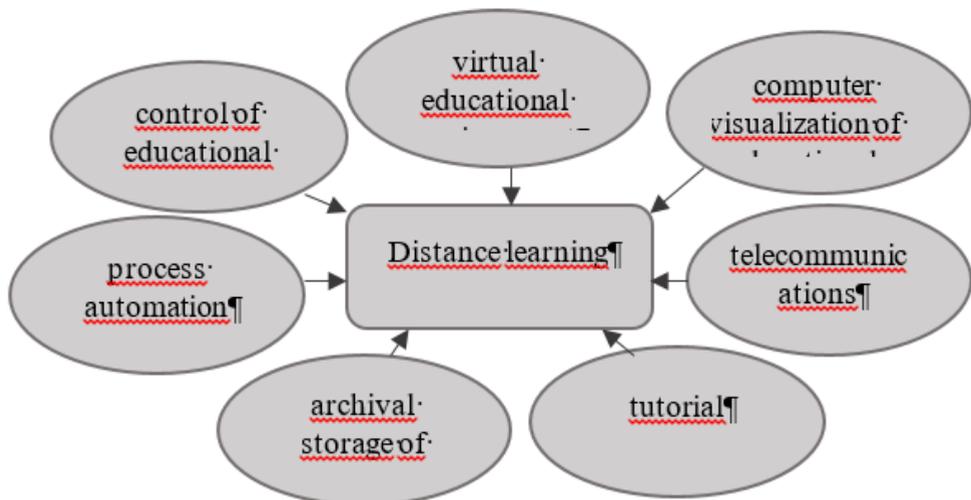


Fig. 1. The main elements of distance learning.

Experts everywhere predict that after the end of the pandemic, education will cease to exist in its traditional form [21]. Online technologies will allow replacing traditional lectures with their online counterpart. It can be noted that the online course is a mobilizing form of learning, which involves a greater number of control elements, allowing a more sustainable mastering of the material covered.

Global changes are taking place in the field of education in the current conditions. It is necessary to consider the "crisis" as an "opportunity", it gives impetus to the creation and development of innovative educational technologies and programs aimed at the synthesis of fundamental science and practice, opening up access to modern educational resources, systemic retraining of personnel and other, and will also contribute to the abandonment of the obviously outdated forms of teaching.

It should be noted that the transition to distance education for those teachers who already had the practice of teaching in a distance format did not cause any particular difficulties. Universities that have long been using this practice coped best with the organization of remote work.

The transition from classical full-time education to distance learning presupposes its own characteristics, new functions appear for participants in the educational process. Thus, the

teacher acquires new functions of a tutor, coordination of the learning process, adjustment of the discipline being read, counseling and others, the range of necessary competencies expands [22, 23]. The interaction between the teacher and students is carried out using e-mail, social networks, telephone communications, from him. Distance learning requires a high level of self-organization and learning motivation from the learner.

In the context of the COVID-19 coronavirus pandemic, with the forced widespread transition to a remote work format, the technical, cultural and organizational difficulties of many universities were noted to work in new conditions [24, 25]. Teachers had to master in a short time new forms of conducting classes, develop control points using digital tools, master digital resources, which in turn resulted in an increase in teaching staff workload. Socio-psychological problems are also not uncommon. Including a feeling of social isolation, a lack of habitual live contact with students, colleagues and management.

3 Research Methods

3.1 Materials and procedures

Within the framework of this article, we conducted an online survey with university professors in order to analyze the existing socio-psychological problems affecting the performance of teachers' official duties in the format of remote work.

The survey was conducted in April 2020 during the period of urgent transition of universities to a remote work format.

The survey was conducted using the Google.doc application.

To analyze socio-psychological problems and the impact of the emergency transition of teachers to a remote format of work, during the survey, we asked the teachers several questions:

1. What problems did you face when you were forced to switch to distance education?
2. What impact do the changed working conditions have on your performance?
3. What impact do the changed working conditions have on your overall health?

In the course of the online interview, we also collected the opinions of the participants regarding the possibilities and disadvantages of teachers switching to a remote work format.

3.2 Participants

The authors conducted a survey among the teaching staff of Russian universities, where 169 respondents from 10 cities of the Russian Federation took part. Among the participants there were 47 men (27.8%) and 122 women (72.2%). The distribution of the number of respondents by age and experience in teaching is shown in Figure 2. As can be seen from the data, the overwhelming majority of respondents who took part in the survey have more than 15 years of teaching experience (68.6%), while the age of 40% of respondents is in the range 41-50 years old.

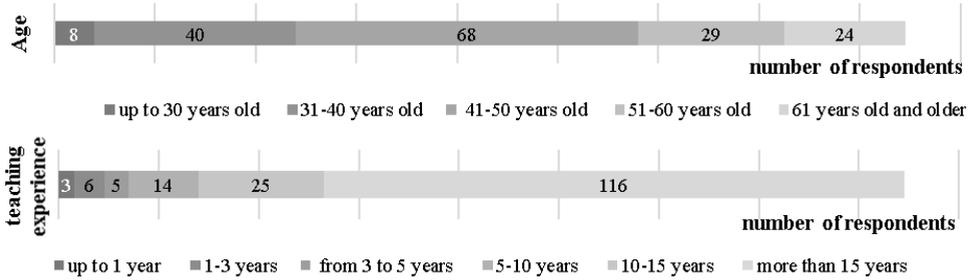


Fig. 2. Distribution of survey participants by age and pedagogical experience.

4 Results

The main opportunities for teachers during remote work, highlighted by the participants:

- distances are leveled. There is no need to move through space. You can conduct any kind of class from a comfortable place using ICT;
- financial savings. Costs for travel, meals, purchase of tools for offline classes with students are reduced;
- "paradise for the introvert." Teachers who are more focused on the inner world, receive energy from within themselves and are weighed down by a large amount of communication, get an "ideal" environment for effective work;
- assessment and development of emotional intelligence. Unfortunately, not all teachers were ready for an emergency transition to a distance employment format (which we will show below), however, the advantage is that teachers saw the zones of development of emotional intelligence and paid attention to their psycho-emotional well-being;
- coverage of a larger audience of listeners. Borders are being erased and conducting classes has become possible in parallel over a wide territory of the country and the world.

In addition to opportunities, respondents noted a number of disadvantages:

- lack of off-line interaction between students and teachers, which narrows communication;
- some students need a live explanation of the subject, because hardly perceive information on electronic media;
- with distance learning, you need to have such qualities as independence, self-discipline, focus on the final result;
- the complexity of the technical support of all participants in the educational process, ensuring constant access to the Internet;
- teachers need to quickly master a large number of tools of technological didactics, new regulations for working with the classroom, set by the university, to restructure the content to meet modern trends and conditions;
- infinity of the working day. The working day, according to the survey participants, increased significantly and amounted to more than 6 hours a day for 66.3% of the respondents;
- difficult control of reactions, mood and educational motivation of students during classes, exacerbated by the lack of technical capabilities to enable video by students.

As a result of studying the data of respondents' answers to the first question, it turned out that the absence of a problem in terms of the socio-psychological impact of the transition to distance education is noted by slightly less than 20% of respondents (19.72%). Most of the respondents note the presence of one or two socio-psychological problems. Including: 49.54% singled out social isolation as the main problem (lack of "live" communication with

colleagues and students), 21.56% talk about signs of emotional burnout and 7.34% as a negative consequence of switching to a remote work format called procrastination. Since this question provided an opportunity to give your answer, which was not included in the choice of options, we were able to collect additional problems noted by teachers, including:

- one of the respondents in the age group “31-40 years old” noted the presence of emotional burnout, which is associated in general with work, and not with the forced transition to a remote form of employment;

- increased nervousness on the part of the management, additional functions that are not related to educational activities assigned to teachers were noted by 2 respondents from the 41-50 age group;

- in the 51-60 age group, the respondents noted that people need not just psychologically support, but in some cases psychiatric care associated with threats of job loss, significant changes in working conditions, job cuts, additional responsibilities, and so on;

- the oldest age group of respondents “51-60 years old” also named one of the problems the presence of anxiety for the current generation of students, which will be deprived of direct contact with the teacher as a bearer of not only knowledge, but also mood and culture.

Figure 3 shows in more detail the distribution of the answers of respondents of different age groups to the research question. The diagram clearly shows that respondents in the age group under 30 and survey participants over 61 more often than others indicate the absence of any socio-psychological problems in the current situation, which may be associated with a fairly high level of mobility and readiness to work in digital educational environment of the first and retirement age and a high level of professional skills of the second. The problem most frequently mentioned by all age groups of respondents is social isolation associated with difficulties in communication through online technologies with colleagues, management and students. This problem, as noted by the survey participants, is often associated with the ICT used by universities and the settings of university LMS. In the current environment, respondents are least likely to encounter procrastination, which is associated with the high intensity of the process of switching to a remote form of work and the need to transform the pedagogical tools of disciplines and with a high level of personal discipline of teachers, as well as increased control from the administration of universities. At least one-fifth of all age groups of respondents identify signs of burnout, which revealed links with an emergency transition to a remote work format. The highlighted problem was aggravated, according to survey participants, by an increased level of control from the administration, poor technical support of the educational process and a lack of socio-psychological support from the leadership. And here the problem of “emergency distance learning” [12] can be traced in the answers of the respondents.

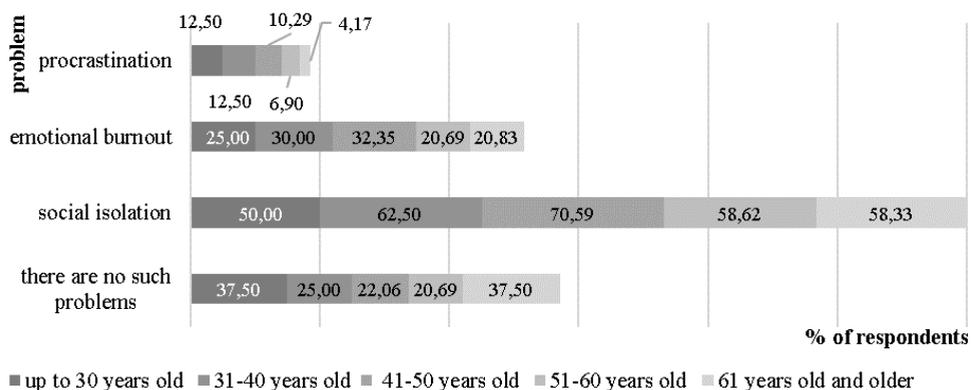


Fig.3. Answers of respondents to the question of what problems they faced during the forced transition to distance education (in%, by age groups of respondents).

Figure 4 shows the results of respondents' answers to the question about changes in the efficiency of teachers during a pandemic in 5 age groups. It should be noted that across the entire sample, 65% of the respondents answered that the changed working conditions had no effect on working capacity (65%), and 14% noted an increase in the ability to work due to the fact that it is more comfortable to work at home, and the university can do additional work. At the same time, about 1/5 of the respondents answered that the transition to a remote work format leads to low efficiency, apathy and laziness. The smallest changes in working capacity in the period under review were indicated by representatives of the oldest age group of respondents (91.7% of participants over the age of 61). Among the youngest age group, on the contrary, the smallest number of respondents noted the absence of changes, but the opinions on the increase and decrease in working capacity among the respondents under the age of 30 were equally divided (37.5% each), which demonstrates very different influence and different levels of readiness to work in the format of distance employment of young people. If you look at the data on the scale "performance has not changed", it can be noted that with age, the change in performance is less and less dependent on external influences.

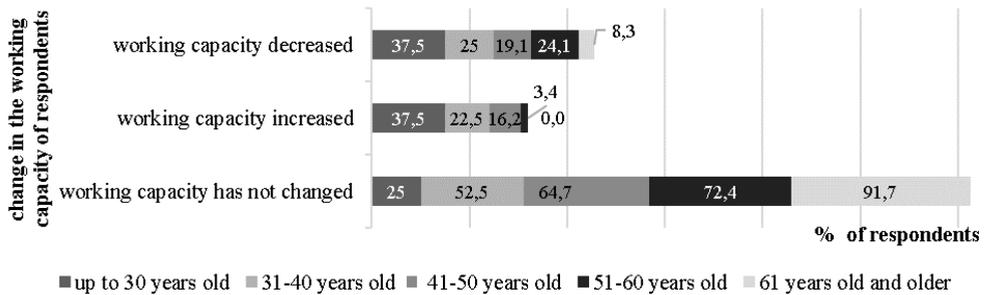


Fig.4. – Answers of respondents to the question about how the new working conditions affected their performance (in%, by age groups of respondents).

The last question asked to the respondents was aimed at clarifying the impact of the changed working conditions on the health of the respondents. As it turned out, the opinion of the respondents across the entire sample was divided practically evenly among the options "had a weak negative impact on health indicators", "had a serious negative impact on health indicators" and "did not have any effect on health" (32.5%, 30, 8% and 31.4% of the respondents' answers, respectively). 5.3% of respondents noted some improvement in the state of physical and mental health in the new working conditions. Figure 5 shows the answers of respondents to this question in different age groups of respondents.

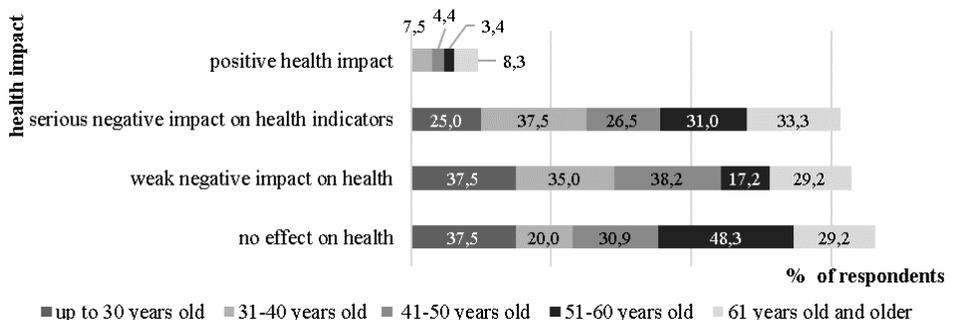


Fig.5. Respondents' answers to the question about the impact of the changed working conditions on their health (in%, by age groups of respondents).

Based on the analysis of the data presented in Figure 5, we can say that remote work had the greatest positive effect on the health of teachers over the age of 61 (8.3%), while respondents under the age of 30, on the contrary, did not notice any positive changes. The greatest serious impact on physical and mental health is noted by respondents aged 31-40 years (37.5%), which is significantly more than in the other four age groups of respondents. Almost half of the respondents aged 51-60 expressed the opinion that the changed working conditions had no effect on their health (48.3%). At the same time, it must be said that more than half of the respondents in each age group (slightly less in the group of respondents from 51 to 60 years old) note the negative impact on health of the emergency transition to a remote form of employment.

According to the results of the study, it can be noted that for an effective transition to a distance learning format, it is necessary to perform a number of actions by the university:

- a strategic approach to building a digital educational environment;
- the formation of a new corporate culture of the university;
- putting in order the regulatory framework and workflow for the implementation of the tasks of switching to a remote work format;
- taking care of the mental and physical health of employees.

Conclusion

Automation had a great impact on changing forms of employment, and the challenges of higher education that society faced during the coronavirus pandemic accelerated these transformations in this area of life [8, 9, 10]. The need to minimize social contacts and the importance of continuing the educational process have led universities to an emergency temporary transfer of teachers to remote work. Having studied previous studies of the problem of "emergency", "quick" transition to distance higher education in the world, we must agree that this has caused quite a few problems, difficulties and shortcomings in the quality of the educational process for all stakeholders [10, 12, 13]. In this paper, we analyzed the possibilities and disadvantages of the remote work format, which are expressed by teachers of Russian universities, as well as the main socio-psychological problems and possible ways to smooth them out in the subsequent organization of work of higher education workers.

In the course of the online interview, we also collected the opinions of the participants regarding the possibilities and disadvantages of teachers switching to a remote work format. For the large number of problems that teachers had to face, there is a wide range of opportunities associated with both the creation of a favorable working environment, financial and time savings, and with the personal and professional development of teachers, which are noted by respondents.

Our goal was to analyze the socio-psychological problems faced by teachers during the period of rapid transition to full distance employment, as the basis for the qualitative performance of basic duties. As a result of the study, we can say that the biggest socio-psychological problem of teachers of all age groups of respondents is social isolation, associated with the lack of communication with all stakeholders of the educational process. This problem is aggravated by the presence of technical difficulties that exist in the LMS of the university and among students and teachers, which often leads to situations of the communication with "invisible" students who cannot start not only video, but also audio communication during classes. A third of respondents aged 41-50 note the presence of emotional burnout caused by the current circumstances, about 10% of this group of survey

participants also speak about the presence of procrastination. The two least influenced by the rapidly changing working conditions are the groups of respondents under 30 and over 61, which can be caused by a number of factors, from the mobility and flexibility of the generation of "digital natives" to the skill and accomplished personalities of representatives of the older age group of retirement and pre-retirement age. It is noteworthy that the smallest changes in working capacity occurred in the age group of respondents older than 61 (91.7%), while the remaining 8.3% of teachers note an increase in working capacity. At the same time, the most significant changes affected the younger generation of teachers under the age of 30 (37.5% note an increase in working capacity, and 37.5% of its decline). But the answers of the respondents regarding the impact on mental and physical health cause anxiety, since it cannot be said that any of the age groups felt the least negative influence on it from the changed conditions. This fact indicates the need to draw the attention of the administration of universities to providing a comfortable environment, creating conditions and support to minimize the negative impact on the health of teachers.

The results of our research show how important it is to plan and think over the transition to a remote form of employment, not only from the point of view of creating a digital educational environment and developing the competencies of teachers and students in the use of ICT, but also the development of socio-emotional competencies of all participants in the process of professional training at a university. and creating a comfortable social, psychological, supportive environment.

Reference

1. C. B. Frey and M. A. Osborne. The Future of Employment: How Susceptible are Jobs to Computerisation? *Technological Forecasting and Social Change*, 114, 254 (2017)
2. D. Desilver Before the coronavirus, telework was an optional benefit, mostly for the affluent few. Retrieved from: <https://pewrsr.ch/2qwk1zt>. (2020)
3. T. A. Kamarova Employment as a Modern Development Trend: Social and Labor Relations in the Digital Economy. *2nd International Scientific and Practical Conference "Modern Management Trends and the Digital Economy: from Regional Development to Global Economic Growth" (MTDE2020)*, 681 (2020)
4. D. E. Bailey & N. B. Kurland. A review of telework research: Findings, new directions, and lessons for the study of modern work. *Journal of Organizational Behavior. The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, **23**(4), 383 (2002)
5. A. Belzunegui-Eraso & A. Erro-Garcés. Teleworking in the Context of the Covid-19 Crisis. *Sustainability*, **12**(9), 3662 (2020)
6. J. M. Nilles. *Making telecommuting happen: A guide for telemanagers and telecommuters*. New York: Van Nostrand Reinhold. (1994)
7. D. Hutchinson. Work-life balance in the workplace. *Diversity and Inclusion in the Global Workplace*. Palgrave Macmillan, Cham, 185 (2018)
8. L. Mishra, T. Gupta & A. Shree. Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. *International Journal of Educational Research Open*, **1**, 100012 (2020)
9. C. M. Toquero Challenges and Opportunities for Higher Education Amid the COVID-19 Pandemic: The Philippine Context. *Pedagogical Research*, **5**(4) (2020)
10. A. V. Pешa, & T. A. Kamarova. Online Education: Challenges and Opportunities for Developing Key Competencies of the 21st Century During the COVID-19 Pandemic. *In*

- Research Technologies of Pandemic Coronavirus Impact (RTCOV 2020)*, Atlantis Press, 155 (2020)
11. K. Harting, & Erthal History of distance learning. *Information technology, learning, and performance journal*, **23**(1), 35 (2005) M. J.
 12. A. Bozkurt & R. C. Sharma. Emergency remote teaching in a time of global crisis due to CoronaVirus pandemic. *Asian Journal of Distance Education*, **15**(1), i-vi (2020)
 13. M. Churiyah, S. Sholikhan, F. Filianti & D. A. Sakdiyyah. Indonesia education readiness conducting distance learning in Covid-19 pandemic situation. *International Journal of Multicultural and Multireligious Understanding*, **7**(6), 491 (2020)
 14. N. Bloom, J. Liang, J. Roberts, and Z. J. Ying. Does working from home work? Evidence from a Chinese experiment. *The Quarterly Journal of Economics*, **130** (1), 165 (2015)
 15. E. V. Voronina. Analiz rynka distancionnoj zanyatosti v RF. [Analysis of the remote employment market in the Russian Federation.] *Scientific Almanac*, **2-1**, 125 (2016)
 16. M.V. Chudinovskikh. Features of distance female employment in the field of additional vocational education. e-FORUM, 3. Federal State Budgetary Educational Institution of Higher Education Ural State Economic University (2019)
 17. A. V. Pesha & N. V. Tonkikh. Digitalization of the Economy and Remote Employment of Women: An Analysis of the Situation and Development Prospects. In *Proceeding of the International Science and Technology Conference" (FarEastCon 2019"*). Springer, Singapore, 557 (2020)
 18. A. I. Tavares. Telework and health effects review. *International Journal of Healthcare*, **3**(2), 30 (2017)
 19. M. Heiden, L. Widar, B. Wiitavaara & E. Boman. Telework in academia: associations with health and well-being among staff. *Higher Education*, 1 (2020)
 20. N. Tonkikh, A. Fedorova O. Koropets. Female Distance Employment: Opportunities and Challenges. In *International Conference on Gender Research*. Academic Conferences International Limited, 622 (2019, April).
 21. M. Tesar. Towards a post-Covid-19 'new normality?': Physical and social distancing, the move to online and higher education. *Policy Futures in Education*, **18** (5), 556 (2020)
 22. L. Benade. *Being a teacher in the 21st century*. – Singapore: Springer, 25 (2017)
 23. C. S. Chai, J. Hwee Ling Koh & Y. H. Teo. Enhancing and modeling teachers' design beliefs and efficacy of technological pedagogical content knowledge for 21st century quality learning. *Journal of Educational Computing Research*, **57**(2), 360 (2019)
 24. A. E. Al Lily, A. F. Ismail, F. M. Abunasser & R. H. A. Alqahtani, Distance education as a response to pandemics: Coronavirus and Arab culture. *Technology in society*, **63**, 101317 (2020)
 25. J. Crawford, K. Butler-Henderson, J. Rudolph, B. Malkawi, M. Glowatz, R. Burton & S. Lam. COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching*, **3**(1), 1 (2020)

Teacher-student interaction in the context of higher education

*Elena Makarova**

Ural State University of Economics, Department of Business Foreign Language, 620144 Yekaterinburg, Russia

Abstract. The article addresses the issue of teacher-student relationship in Russian higher education environment. The aim of the study is to identify challenges and problems faced by first- and second-year Russian students in interaction with university teaching staff and consider ways of solving them. The paper presents the analysis of student survey results, which contained closed and open-ended questions. Quantitative and qualitative research methods, applied in the study, allowed to confirm students' needs for respectful attitude and teacher's support. Respectful teacher's attitude was found to be more significant for harmonizing classroom environment than teacher's ability to effectively transfer subject-related knowledge. Recommendations on establishing balanced teacher-student relationship and minimizing anxiety in higher education settings are given. The findings are in relation to teacher development programmes and their potential in providing teaching staff with pedagogical and psychological knowledge for establishing cooperative teaching and learning. Suggestions for further research including teacher-student interaction from teacher's perspective are outlined.

1 Introduction

Teacher-student interaction belongs to the topics which have increasingly attracted the attention of practitioners, methodologies and researchers in the last decades. Despite being in the centre of interest, the issue of relationship between university teachers and students in the context of higher education needs further development as constantly changing modern academic environment calls for new approaches to teaching and learning [1]. At present when most attention is paid to distance education challenges and development of teachers' technology-related skills, providing university staff with pedagogical and psychological knowledge can't be neglected. Through development programs university teachers can be assisted in responding to emerging professional needs, among which teacher-students relationships remain most important. Introducing innovative pedagogical approaches aimed at building a new type of teacher-student interaction can be a challenging task for those university teachers who lack pedagogical education. Methods and ways of building positive teacher-student communication undoubtedly deserve a place in professional development programs [2].

* Corresponding author: makarovayn@mail.ru

Interaction of representatives of different generations, having different worldviews, beliefs and values, is likely to provoke conflicts. The gap between average age of a university teacher and a student may be around 23 years and can cause differences in students' and teachers' expectations for interactions during education process [3]. Obstacles emerging in teacher-student classroom communication demands from a university teacher the ability to handle difficult situations and adjust to constantly changing conditions. Modern teacher is expected to provide assistance in effective learning and build relationship based on trust.

The aim of the study is to determine challenges and problems in teacher-student interaction as seen by students of a Russian university. The objectives of the research are the following: on the basis of survey results to describe students' perception of university teachers' power and potential in creating an effective learning environment and reducing level of stress and anxiety experienced by students in the classroom; to identify students' needs related to teacher-student relationship.

Teacher-student interaction is considered to be among the most important relationship a person can encounter during his life [4]. As T. Farell [5] observes, building respectful relationship between teacher and student must be placed in the center of quality learning experiences. Teacher-student interaction can be developed and improved in different kind of activities. For example, E.K. Briody, E. Wirtz, A. Goldenstein and E.J. Berger explore faculty-student interactions and methods to mitigate faculty-student distance out of the classroom [6].

Modern authors consider the issue under discussion from opposite points of view: from the point of view of the teacher and from the student's perspective. As the paper focuses on learner's perception of teacher-student relationships, we will concentrate on the review of modern studies conducted in relation to students' understanding and interpretation of teacher-student interaction. Research carried out from students' perspective, discusses the impact of teacher's professional, scientific and personal characteristics on teacher-student interaction [7]. Analysing these three areas of academic activities, the authors conclude that teacher's communicative skills help provide favourable learning environment and affect the quality of education. The literature review shows that most recent studies prove positive correlations between effective teacher-student interaction and growth of students' motivation and decrease of stress and anxiety level.

High-stress classroom atmosphere can originate from numerous factors, including a lack of teacher's support. Modern students experience stress and anxiety being in the classroom, which cannot but have negative impact not only on academic performance of the students, but their psychological well-being [8]. The fact that many questions in this field remain unanswered and modern academic environment is observed to remain stressful, makes addressing the issue of teacher-student interaction and its further study relevant.

2 Materials and methods

It was decided that the best method to better understand students' perception of challenges in teacher-student interaction as well as teacher's potential in building an effective learning environment was to conduct a survey. The survey contained 13 questions, 6 of which belonged to the category of open-ended questions, the rest being close-ended ones. The participants were 38 first- and second-year Russian students, aged 18 and 19, who major in economics and management. Quantitative and qualitative methods were found effective for analysing students' survey responses and achieve the research aim.

3 Results and discussion

The analyses of students' responses can be divided into two parts: firstly, analysis of students' perception of the ability of the teacher to reduce student's anxiety and negative stress level; secondly, discussion of issues related to students' needs for respectful teacher's attitude and building cooperative relationship.

3.1 Student's stress level and anxiety

The percentage distribution of the answers given by the respondents to the question "Have you ever experienced anxiety or stress being in the classroom?" is presented in Figure 1.

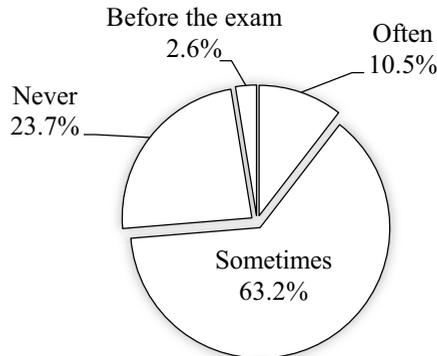


Fig. 1. Distribution of answers to the question "Have you ever experienced anxiety or stress being in the classroom?"

The pie-chart shows that more than 73% of the first- and second-year students have been under stress or felt anxiety. Though analysis of factors causing stress is beyond the scope of this study, the question "Do you feel afraid to ask questions in class?" was asked to see if communication with teachers, namely asking a question in the classroom, can cause negative stress or anxiety. Low percentage of students experience difficulties when asking their teacher questions – more than 86% of first- and second-year students do not consider it to be a challenge (Figure 2).

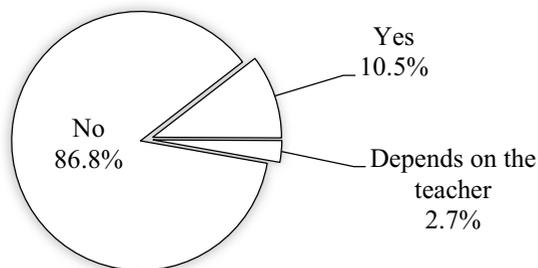


Fig. 2. Distribution of answers to the question "Do you feel afraid to ask questions in class?"

92% of the students consider teachers to be able to reduce negative stress level in the classroom. These data indicate that the majority of the respondents are positive about teacher's ability to cope with classroom stressful situations and help students overcome anxiety (Figure 3).

Methods to handle stress in classroom settings are numerous. One of them suggests introducing into academic environment social-emotional learning [8]. It is proved to be efficient in combating anxiety and reduce negative stress level. Social-emotional learning impacts both students' academic success and their psychological well-being.

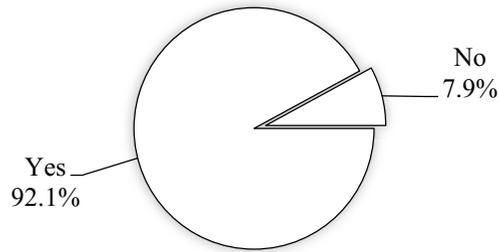


Fig. 3. Distribution of answers to the question “Can a teacher help reduce stress level in the classroom?”

Another pedagogical tool to establish teacher-student interaction based on trust, which enables efficient learning environment and helps minimize negative emotions, is teacher self-disclosure [4], which implies revealing some information on teacher’s personality even if this information is not related to the subject taught. Blended learning is also considered to be an effective method and can help reduce level of students’ anxiety [9].

3.2 Respectful relationship

The second group of survey data relates to significance of establishing student-teacher respectful interaction. The analyses of respondents’ answers showed that all the participants consider teacher’s respectful attitude most important. According to students’ responses, teachers can show they respect and value their students in many ways, for example by answering students’ questions and not raising their voice. Among other answers are the following: objective evaluation of students’ knowledge and performance, readiness to help, ability to listen and understand, equal attitude to all students, praising in the classroom, communicating with students, being a partner, giving a student a chance to express his point of view even if it’s different from the teacher’s opinion, being polite. Many answers refer to personal traits rather than professional characteristics of a teacher. The respondents were also required to compare the significance of teacher’s respectful attitude with teacher’s ability to transfer knowledge. Only few students view teacher’s ability to explain the material in a simple way as more significant in comparison to respectful interaction. Some students opposed “communication with a student” to “giving a student subject-related knowledge”, meaning by “communication” teacher’s ability to encourage, inspire and praise. The data obtained by the survey confirmed the results of the research conducted by A.A. Fyodorov et al. [3]. Respectful attitude to students was valued higher than subject knowledge, which ranked second.

Students answers highlighted their need for respectful communication and student-teacher partnership in learning and teaching. These expectations along with high percentage of respondents who have experienced negative stress and anxiety in the classroom bring into discussion the importance of teachers’ readiness to change their role from an information and knowledge transferor to a partner and a helper [10]. The necessity for establishing a learning partnership demands considering from teacher’s perspective. Measuring teacher-student relationships from both perspectives can help better understand challenges and problems of teacher-student interaction [11].

4 Conclusion

The following conclusions can be drawn from the study. Most first- and second-year students who participated in the study have experiences negative stress or anxiety being in the

classroom. About 10% of the respondents often find themselves in stressful situations being in academic environment. Teacher-student interaction did not prove to be a students' anxiety source as the majority of the respondents are not afraid of asking their teachers questions related to the subject. Over 90% of the participants perceive their teacher as a person who is able to help reduce level of stress in the classroom and improve learning environment. The second major finding concerns the relevance of establishing student-teacher respectful interaction to effectiveness of learning process. From the students' perspective respectful teacher's attitude is more significant in comparison to teacher's ability to transfer subject-related knowledge. The analysis of the survey answers revealed students' need for effective and respectful dialogue with teachers. According to the results obtained in earlier research, applying educational psychology in teaching and learning is not perceived by university teachers as their essential characteristics and task [12]. This calls for necessity of seeking new approaches to university teachers training, who should be prepared for initiating and establishing effective and respectful interaction with their students based on profound knowledge in methodology, psychology and pedagogy. University teachers without pedagogical training background can develop their pedagogical competence by participating in professional development programmes. Teachers involvement in these programmes can help introduce elements of educational psychology in teaching and learning and promote better understanding of students needs for teachers-student effective interaction and communication. Further research objectives can include the study of teacher-student interaction from Russian university teachers' perspective, as well as analyses of teachers' and students' readiness to establish learning partnership.

References

1. H. Gehlbach, M.E Brinkworth, A. Juraschek, *Brit J Educ Psychol*, **82**, 690 (2012)
2. L. Claessens, J. van Tartwijk, A.C. van der Want, H. Pennings, Nico Verloop, Perry J. den Brok, T. Wubbels, *J Educ Res*, **110**, 478 (2015)
3. A.A. Fedorov, E.Yu. Ilaltdinova, S.V. Frolova, *Higher Education in Russia*, **27**, 28 (2018)
4. N. Safaei, M. Shahrokhi, *Cogent Educ*, **6**, 1678231 (2019)
5. T. Farrell, *ELT Journal*, **69**, 26 (2014)
6. E.K. Briody, E. Wirtz, A. Goldenstein, E.J. Berger, *Eur J of Eng Educ*, **44**, 666 (2019)
7. F. Maleki, M.H. Talaei, S.R.M. Moghadam, S. Shadigo, H. Taghinejad, A. Mirzaei, *J Clin Diagn Res*, **11**, 4 (2017)
8. S.L. Stocker, K.M. Gallagher, *College Teaching*, **67**, 23 (2019)
9. P. Sarkar, S. Sharma, *Int J Grid Distrib Comp*, **13**, 277 (2020)
10. M. Yusofi, S. Zarghami-Hamrah, Y. Ghaedy, A. Mahmudnia, *Policy Futures in Education*, **16**, 147 (2017)
11. M.E. Brinkworth, J. McIntyre, A. Juraschek, H. Gehlbach, *J Appl Dev Psychol*, **55**, 24 (2017)
12. I.E. Abramova, E.N. Makarova, *Perspect Sci Educ*, **44**, 415 (2020)

The development of the well-being of students of the risk group as an indicator of improving the quality of higher education in the context of the Bologna process

Svetlana Khusainova^{*}, *Ekaterina Palekha*

Institute of Pedagogy, Psychology and Social Problems, Isaeva st., 12, 420039 Kazan, Russia

Abstract. The relevance of the article is due to the need to develop the well-being of students included in a special risk group because of their deviancy: that affects the level of the quality indicator of higher education. This problem is presented in the aspect of development of lifelong learning in the context of the Bologna process. The purpose of the article is to identify the well-being of students of the risk group as an indicator of improving the quality of higher education correlated with personality-oriented learning and the idea of increase of their mobility and competitiveness in the labor market. The authors reveal that students of the risk group with a low level of well-being and a low level of self-acceptance face difficulties in setting an adequate goal in life, as well as in establishing the necessary contacts that contribute to the creation of autonomy that determines the satisfaction of the proposed conditions of their development. The authors show the essence of the quality indicator of higher education, which consists in resilience, involvement in one's own activities and risk taking, which is realized through the active assimilation of knowledge from experience and its usage. It is proposed to consider the development of students' well-being as an additional indicator of the quality of higher education. It has been proven that the high value of the diversity of education systems is recognized as one of the missions of higher education to develop the well-being of students of the risk group. The article could be interesting for educational psychologists, graduate students and researchers of risk groups in the education system.

1 Introduction

The challenges of the new era are aimed at changing and improving the multifaceted aspects of higher education. Responding to these changes requires continuous quality control. The diversity of higher education is constantly supported by public policies and the need to enhance the relevance of its missions of teaching, research and socio-cultural

^{*}Corresponding author: sv_husainova@mail.ru

development. Students, institutions and other participants of higher education relations must be adequately prepared for situations of change in a rapidly changing world.

One of such components of quality control can be the criteria of one's satisfaction with life and with oneself, which also denotes a high level of psychological well-being while achieving the goal. The influence of this phenomenon on a human life and activities in various areas contributes to an increase in the level of subjective well-being.

Researchers of the problems of psychological well-being noted that this area is becoming more and more relevant. E. Diener, K. Petersen, K. Sheldon, R. Ryan, S. Lubomirski, C. Ryff, D. Kahneman and others support the necessity of study of psychological well-being in their research [1, 2, 3, 4, 5, 6].

Russian researchers N. K. Bakhareva, M. V. Buchatskaya have also studied the concept of psychological well-being of the subjective and psychological well-being of the individual. The study of resilience as a special system of beliefs about oneself, the world and relations to the world is the topic of the famous works of D. A. Leontiev [7]. The applied aspect of the phenomenon is expressed in the personality variable term which provides mental health and opposition to situations of change.

Speaking about the circumstances of a person's life, it is always assumed that the manifestation of events is shifted from a positive to a negative one or the occurrence of a situation of change in the process of activities carrying out. Such circumstances carry the perceived risks and cause in a person certain reactions to negative events. Not everyone succeeds, but the subject can immediately cope with the challenges of society, the development of technologies, economic changes that entail negative experiences. In fact, undesirable factors create risk that can occur in a particular situation or be taken into account and minimized. In situations of change, the behavior of persons at risk is noted with the inability to cope with difficulties (loss of normal conditions for development, loss of life / health, etc.). This category was defined by researchers as a "risk group". This category is described by L. Ya. Oliferenko, T. I. Shulga, I. F. Dementieva as persons, due to the circumstances of life, most susceptible to negative external influences, both from society and its criminal elements, contributing to the emergence of maladjustment [8].

Previously S. V. Khusainova and her colleagues [9, 10, 11, 12] described some features of the risk group in order to create a number of psychological and pedagogical recommendations to the Russian educational zone, the implementation of them is supposed to contribute to the prevention of the manifestation of deviant behavior of student youth.

M. Seligman considers psychological well-being through the prism of prosperity, which determines the state of stable balance expressed in a high level of psychological, social and emotional well-being. He bases it on the category of "passion" and shows in his research that students' enthusiasm is mainly manifested outside the educational organization with a high degree of cognitive motivation. Students perceive the educational organization in the range from apathy to irritation. This was confirmed by the researcher in cross-cultural studies [13, 14].

The study of the quality of life and mental health was first carried out by D. Gurin, D. Verov, Sh. Feld. Further, these studies gained their significance in the study of the balance of positive and negative emotions as the main indicators of psychological well-being of a person by N. Bradburn and D. Kaplovich [15, 16]. Later A. Campbell, P. E. Converse, W. L. Rodgers conducted a study of life satisfaction, without relying on the concept of happiness. As a result, two paradigms for the study of psychological well-being were derived [17].

I. V. Dubrovina [18] emphasizes that one of the priority tasks is the development of a psychological service, the work of which is aimed at solving social problems of overcoming negative emotions and states. Psychological support, in her opinion, should be

directed to the development of positive emotions and states aimed at experiencing well-being.

Learning about the world needs to pass through the prism of spiritual values that pay attention to respect for people and themselves as a person. This will provide an answer to some of life's questions: *What is the feeling of happiness? Is satisfaction an indicator of psychological well-being? How can you solve problems successfully and experience positive thoughts during this time?*

Attention concentration on positive experiences contributes to the emergence of "student's enthusiasm", correlates with the feeling of pleasure from the task being performed and awakening interest in learning activities. The basis of the study consciousness is attention concentration, and interest contributes to its maintenance, stimulating activity and the desire to continue it.

Universities students who are in classrooms for a long time consider classes unattractive. Classes, conducted in an active form, contribute to an increase in concentration in educational activities and increase the level of enthusiasm, where the task begins to be perceived as feasible.

Psychological well-being acts as a predictive parameter for understanding one's own abilities aimed at solving educational problems. Passion for activities that bring them closer to the realization of the goal raises the expectation of success, but if the activity consists only of simple tasks, satisfaction is impossible. A level of difficulty is needed that promotes the acquisition of problem-solving skills that improve the quality of education.

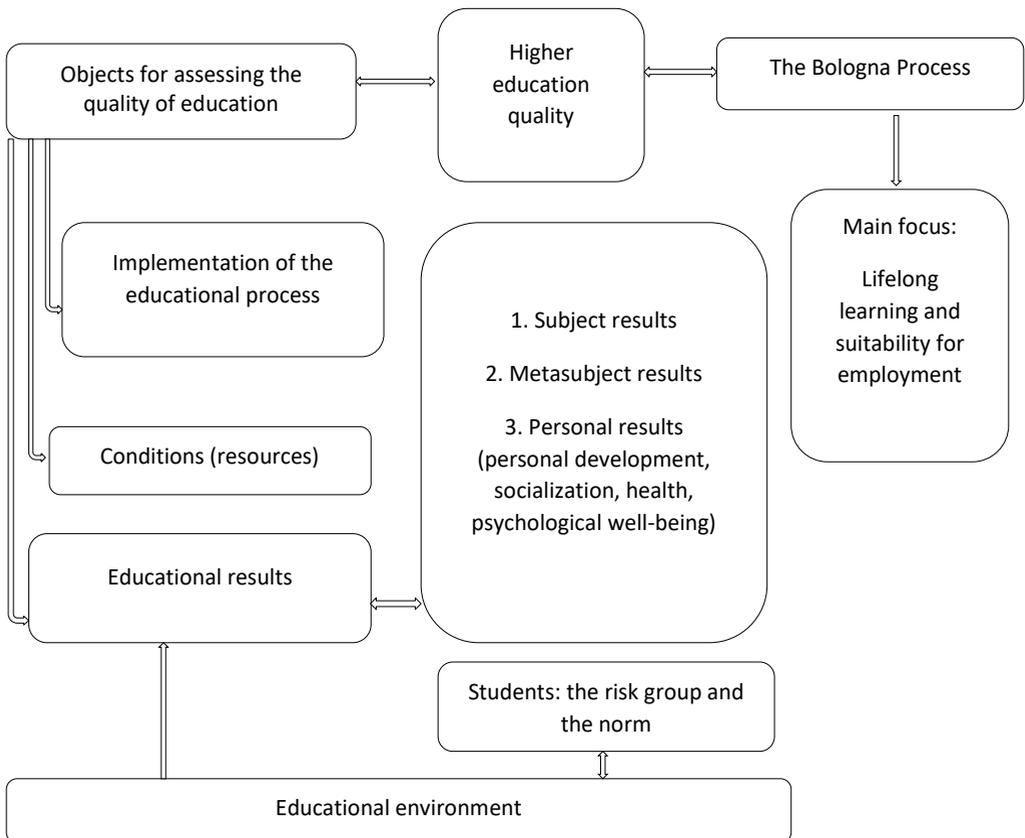


Fig. 1. Psychological well-being as an indicator of improving the quality of higher education in the context of the Bologna process.

Figure 1 shows that psychological well-being can be considered as an indicator of improving the quality of higher education in the context of the Bologna process: to a greater extent, it will influence personal results, as well as have a direct impact on educational results. This means that both the environment and the conditions of learning, and the peculiarities of the implementation of the educational process invariably affect such a factor as the well-being of the student's personality.

M. A. Artamonova in her research has shown that “the social aspect of the Bologna Process emphasizes the social characteristics of higher education aimed at providing equal opportunities for quality education. Access to higher education should be enhanced by strengthening the capacity of students from underrepresented groups and providing the right conditions for completing their studies. This involves improving the learning environment, removing all barriers to learning, and creating the right economic environment for students to benefit from learning opportunities at all levels. Each participating country will set measurable goals for increased overall participation and increased participation of underrepresented groups in higher education, to be achieved by the end of the next decade. Efforts to achieve objectivity in higher education must be complemented by actions in other parts of the education system” [19].

2 Methods

Theoretical methods were used to obtain generalized knowledge about any psychological phenomenon.

The study used the following methods. Methodology for assessing psychological well-being (C. Ryff) was designed to measure the severity of the main components of psychological well-being. Within the framework of the eudemonistic approach, based on the earlier research of M. Yagoda, C. Ryff developed a multidimensional model of psychological well-being. It includes six main components of psychological well-being: having a purpose in life, positive relationships with others, personal growth, environmental management, self-acceptance and autonomy. This technique was adapted into Russian by T. D. Shevelenkova and T. P. Fesenko in 2005 [20].

The Resilience Questionnaire by S. Muddy, adapted by D. A. Leontiev, to identify readiness for self-development. The vitality test is an adaptation of D. A. Leontiev. The Hardiness Survey was developed by the American psychologist Salvatore Maddy. Resilience is a system of beliefs about oneself, the world, and relationships with it, which enable a person to withstand and effectively overcome stressful situations [7].

The study involved first and second year students of Kazan Federal University – these are 65 people: 29 boys and 36 girls aged 18 to 20 years.

3 Analysis and results

The purpose of the article is to identify the well-being of students of the risk group as an indicator of the quality of higher education in correlation with student-centered learning. This contributes to the success and satisfaction of the anticipated developmental conditions affecting the level of well-being of students of the risk group, increasing their mobility and competitiveness in the labor market.

For the study, the students were divided into subgroups according to indicators of psychological well-being. The risk group and the group of students corresponding to the social norm were determined.

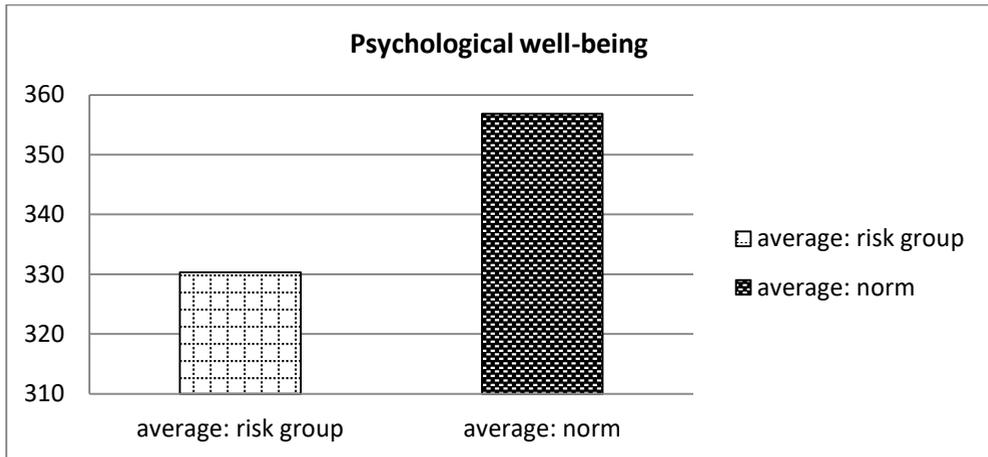


Fig. 2. Indicators of well-being of students of the risk group and the group of students corresponding to the social norm.

The figure 2 shows that students of the risk group have a low level of meaningfulness of life, value-semantic competence and motivation.

Interpretation of students' answers according to the methodology scales indicate that they are dissatisfied with themselves, disappointed with the events of their past, negatively assess some of their personal qualities and would like to be not who they are.

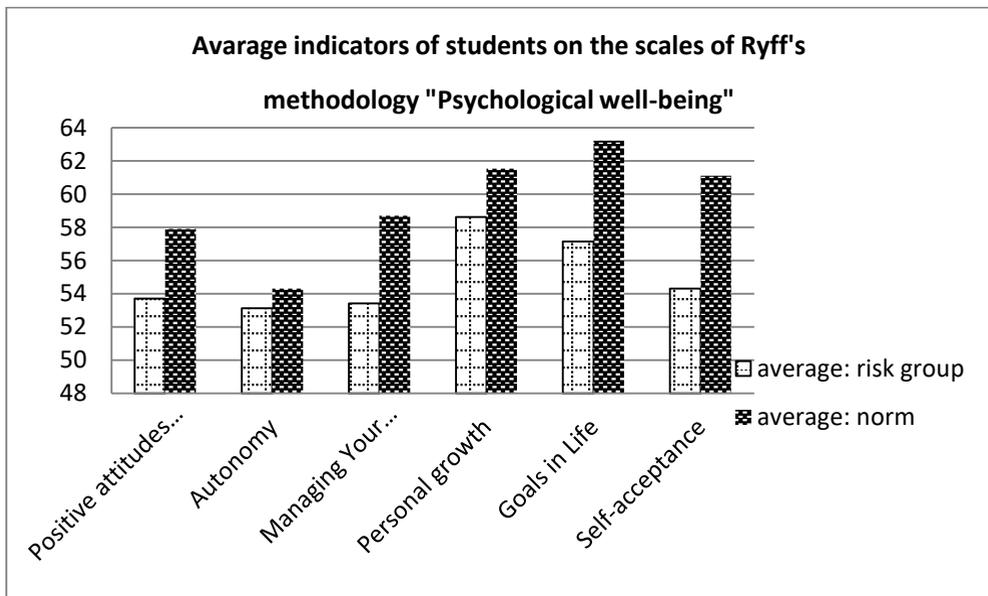


Fig. 3. Indicators of the scales of well-being of students of the risk group and the group of students corresponding to the social norm.

Figure 3 shows that the students of the risk group have indicators on all scales lower than those of students of the social norm. This suggests that they have no satisfaction of aspirations, which indicates the specificity of the conditions in which the learning process takes place. It is currently a distance learning form. There are some limitations for the realization of goals when solving educational problems.

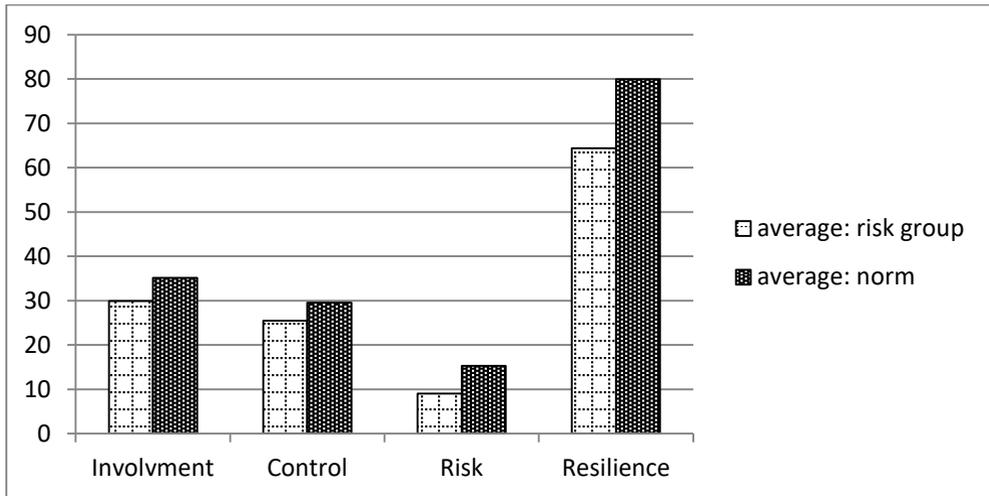


Fig. 4. Indicators of resilience of students of the risk group and the group of students corresponding to the social norm.

The results of students obtained according to the "Resilience" methodology revealed (Fig. 4) that the average values on the scales "Engagement", "Control", "Risk", "Resilience" among students of the risk group are lower than those of ordinary students (norm), which speaks of an insufficiently formed system beliefs that enable the learner to perceive and deal with a difficult situation.

To identify the necessary indicator that contributes to improving the quality of higher education, correlated with maintaining the satisfaction of the proposed development conditions, a one-way analysis of variance was made.

Table 1. The matrix of coefficients of assessments of well-being and resilience components.

	Component	
	1	2
Positive attitude towards others	,836	-,094
Autonomy	,969	-,500
Environmental management	,722	-,050
Personal growth	,351	-,432
Life goals	,715	-,530
Self-acceptance	,802	,010
Psychological well-being	,935	-,090
Involvement	,054	,553
Control	,050	,665
Risk	-,231	,839
Resilience	,031	,918

Isolation method: Principal component analysis. Rotation method: Varimax with Kaiser normalization.

The obtained results of the variance analysis showed that two factors (load 67 % and 74 %) were identified that determine 1 – a positive attitude towards life and 2 – resilience in a situation of change. The first characterizes a positive attitude, harmony with the outside world and the experience of happiness. The second factor characterizes resilience in relation to current events. These results confirm that psychological well-being can act as indicators of improving the quality of higher education as objects of assessing the quality of education in educational institutions. The main parameters for assessing quality will be

educational results: subject results, metasubject results, personal results (personal development, socialization, health, psychological well-being). Psychological well-being is an indicator of improving the quality of higher education that contributes to the satisfaction of the proposed development conditions.

4 Conclusions

1. The need to develop the well-being of students of the risk group, which affects the level of expression of the indicator of the higher education quality, has been revealed. This problem was presented in the aspect of the development of "lifelong learning" in the Bologna process context.
2. It has been determined that the well-being of students of the risk group as an indicator of the quality of higher education is correlated with personality-oriented learning. This way of learning contributes to the success and satisfaction of the expected developmental conditions, and also affects the level of well-being of students of the risk group in order to increase their mobility and competitiveness in the labor market.
3. It has been proven that students of the risk group with a low level of well-being and a low level of self-acceptance face difficulties in setting an adequate goal in life, as well as in establishing the necessary contacts that contribute to the creation of autonomy that determines the satisfaction of the proposed development conditions.
4. The essence of the quality indicator of higher education has been revealed, it consists in resilience, involvement in one's own activities and risk taking, which is realized through the active assimilation of knowledge from experience and its subsequent use.
5. It is proposed to consider the development of students' well-being as an additional indicator of the quality of higher education. It has been proven that the high value of the diversity of education systems is recognized as one of the missions of higher education to develop the well-being of students of the risk group.

Acknowledgements

The article has been prepared as a part of the public task of the Institute of Pedagogy, Psychology and Social Problems on the topic No. FNRR-2021-0003.

References

1. E. Diener, C. Diener, *Most people are happy*, Psychological Science, no. **7**, 181 (1996)
2. C. Peterson, M. Seligman, *Character strengths and virtues: A handbook and classification* (2004).
3. C. D. Ryff, C. L. Keyes, *The Structure of Psychological Well-Being Revisited*, Journal of Personality and Social Psychology, vol. **69**, 719 (1995)
4. C. D. Ryff, *Psychological well-being*, *Encyclopedia of gerontology: age, aging, and the aged* (1996)
5. C. D. Ryff, C. Keyes, *The Structure of Psychological Well-Being Revisited*, Journal of Personality and Social Psychology, vol. **69**, no. **4**, 719 (1995)
6. C. D. Ryff, *Psychological well-being*, **269** (2014)
7. D. A. Leontiev, E. I. Rasskazova, Vitality test, **63** (2006)
8. L. Ya. Oliferenko, T. I. Shulga, I. F. Dementyeva, *Socio-pedagogical support of children at risk: textbook* (2004)
9. S. V. Khusainova, E. S. Palekha, R. O. Galieva, R. N. Khakimzyanov, *Deviancy VS extremism: terms, prerequisites, research* (2019)

10. S. V. Khusainova S., E. Palekha, *Generetion Z: ways, methods and forms of training (the question of increasing the motivation of students and the professional growth of teachers)*, Proceedings 12th International Conference of Education, Research and Innovation, 3670 (2019)
11. S. V. Khusainova, External influence as a factor in the safety of the educational environment. *Scientific opinion*, **1**, 85 (2018)
12. S. V. Khusainova, R. N. Khakimzyanov, Study of psychological features of the personality prone to deviant behavior, *Kazan pedagogical journal*, **6(137)**, **195** (2019)
13. M. Seligman, *Flourish: A Visionary New Understanding of Happiness and Well-being* (2012)
14. M. Seligman, *The Optimistic Child* (2007)
15. N. M. Bradburn, *The Structure of Psychological Well-Being* (1969)
16. N. M. Bradburn, D. Caplovitz, *Reports on Happiness: A Pilot Study of Behavior Related to Mental Health* (1965)
17. A. Campbell, P. E. Converse, W. L. Rodgers, *The Quality of American Life* (1975)
18. I. V. Dubrovina, *Psychological well-being of schoolchildren in the system of modern education: textbook* (2016)
19. M. A. Artamonova, Higher education reforms and the Bologna process in Russia (a private view of a methodologist), **279** (2008)
20. T. D. Shevelenkova, T. P. Fesenko, Psychological well-being of the individual, *Psychological Diagnostics*, no. 3 (2005)

The experience of distance learning in the bologna process countries during the COVID-19 pandemic

Zarina R. Bitieva , Maria A. Bulavina, Zalina R. Bitieva*

NANO HE Institute of World Civilizations, Leninsky Prospekt, 1 / 2k1, Moscow, Russia

Abstract. In this article, the authors analyze various aspects of the distance learning discourse of the countries participating in the Bologna Process from the point of view of the impact of the pandemic on the development of higher education. The author pays special attention to the practical aspects of the activities of Russian universities during the pandemic, their interaction with each other and the problems of cooperation in the context of distance learning. Naturally, the stress caused by the epidemic and the transition to distance learning, especially for senior teachers, could not but affect the quality of training, but competently and professionally selected materials provided students with an educational result, and teachers with positive feedback and opportunities for self - development. The aim of the article is to demonstrate the experience of distance learning in the context of the pandemic and its impact on the higher education system. The author used the following methods: comparative research; methods of collecting empirical information; conceptual and terminological analysis; a method for solving problems. The results of the study can certainly be considered as revealing the positive dynamics of the development of the Bologna process in the higher education system, especially in the context of the pandemic.

Introduction

In 2019, the world community as a whole and the countries participating in the Bologna Process in particular, faced a serious problem-the coronavirus pandemic (COVID - 19). Education systems around the world were forced to take measures to organize the educational process in difficult, unexpected conditions associated with the introduction of a self-isolation regime. The emergency transition to distance learning was accompanied by problems of such a nature as: insufficient technical equipment, lack or poor training of teachers and students for the new format of work. At the same time, along with new challenges, the new format of education has brought new opportunities for self-development into our lives, provided a wide range of prospects for changing and improving educational systems. The Bologna education system has also not been left out of these

*Corresponding Author. Email: zalinabitieva@gmail.com

changes. In general, the Bologna Process can be interpreted as a process of internationalization of higher education, and at the same time, digitalization in all spheres of life, which is becoming especially relevant in today's realities.

The study and analysis of this issue is based on the data and conclusions of a large array of publications that are devoted to both the pandemic itself and the improvement of the higher education system. As part of the article, the authors also conducted a survey of students of Russian universities in order to identify the problems they faced during the period of self-isolation and transition to a distance learning format. At the same time, the authors studied the normative legal acts regulating distance learning in Russia [1, 2, 3].

First of all, it is necessary to determine the very concept of "distance learning". Based on the analysis of pedagogical literature, we give such a definition: under distance learning refers to educational activities using distance learning technologies involving the use of information and telecommunications infrastructure for the transmission of information and mediated synchronous or asynchronous interaction of students and teachers [5].

Materials and Methods

The methodological basis for the implementation of this work was some general scientific research methods, among which it is necessary to distinguish research, collection of empirical information, methods of comparative research, conceptual and terminological analysis, as well as the problem method and selective observation. The use of this set of methods will allow us to form a reliable assessment of the impact of the Covid-19 pandemic on the higher education system in Russia. The developed methodological tools will create a basis for a more in-depth scientific study of the consequences of the epidemic's impact on the level of education. The methodology developed in the scientific article will be adapted to take into account the use of a reliable statistical database of publicly available sources.

Results

It is important to note that the transition to the distance learning format in different countries participating in the Bologna Process did not take place with the same success and was characterized by some difficulties within each individual country. Among the difficulties that prevent effective learning in distance format in Russia, according to a survey among the students of Russian universities are the following: problems with reliable Internet connection, access to digital devices or their fault, and no comfortable place for studying at home and lack an adequate level of intrinsic motivation among students, the need for an external control of the teacher.

Thus, 20% and 35% of the surveyed students faced the problem of reliable Internet connection and technical difficulties, respectively. This problem especially affects the settlements of the Russian Federation located in mountainous areas, for example, in such republics as North Ossetia-Alania, Kabardino-Balkaria, Karachay-Cherkessia.

According to the results of the 2018 PISA study, which involved 79 education systems of countries and individual regions, in Russia about 90% of students have a comfortable place to study at home [6]. Despite the results of these studies, 25% of respondents expressed their indignation at the transition to distance learning due to the lack of comfortable conditions for obtaining education outside the walls of educational institutions.

As for the lack of a sufficient level of internal motivation among students, 58% of respondents believe that external control significantly increases motivation to learn. That is,

without the guidance and support of a teacher, students will not be able to effectively navigate the world of distance learning, especially in medical educational institutions.

It is also important to note that in addition to the availability of electronic educational systems and platforms, it is also necessary to ensure that teachers have technical and pedagogical skills in the field of digital technologies. For example, the Institute of World Civilizations (Moscow) uses an electronic information and educational environment (EIE), in which almost 100% of the teaching staff of the Institute were trained under the additional professional training program "Electronic information and educational environment in higher education" in the amount of 72 hours of training. The EIE includes more than 6.2 terabytes of information, including 1750 methodological developments, 2.3 million test questions to control students' knowledge, 9654 materials for practical classes, 6271 materials for lectures, 1425 presentations, and all of them are placed in a single ordered system. The system also hosts more than 378 e-books, the system is connected to EBS ipr-books and U-wright, 1521 video lessons, including in Russian and English. According to the results of a survey of students, distance learning was approved by 77% of students (the main share was made up of students from other regions of Russia). At the same time, in order to organize the educational process for online events, the ZOOM platform is actively used. The convenience of this platform was appreciated by 100 % of the surveyed students, as well as teachers and administrative staff, who especially appreciated the convenience of monitoring class attendance by both students and teachers, as well as archiving classes by recording conferences. In addition, there are many other platforms that implement the possibilities of distance education .

In addition to the identified problems and difficulties caused by distance learning, there are also concerns for the psychological and physical health of students in distance learning. President of the "League of patients", expert of Russian Academy of Sciences, member of Expert Council under the Government of the Russian Federation Alexander Saversky appealed to the Prosecutor General and the FSB, citing the results of a study conducted by the Institute of hygiene and health of children and adolescents FGAI "SMRC children's health" Russian Ministry of health. The study was conducted from April 27 to May 26, 2020 and was called "The well-being of schoolchildren in distance learning during the COVID-19 epidemic". According to the results of the study, 80% of students as a result of isolation and distance learning found dysfunctional mental reactions.

However, in addition to the negative consequences, it is important to note the positive consequences of learning in a crisis situation. The search for new ways of organizing training helps to stimulate creative decisions of teachers. As noted by more than half of the surveyed students – 58%, classes have become more interesting and informative. Since interactive-cognitive games have become actively used, which in turn contributes to improving the assimilation of the material by students. According to testing first-year students in the first semester, with the analysis of test results of first-year students last year, this year the results are much better. In addition to improving results, students' attendance increased, and interest in lectures and practical classes increased due to two factors: first, classes became more interesting, and secondly, students have more free time to prepare for classes due to the distance learning format, since they do not need to spend time on the way to the institute. The results obtained by the team of authors demonstrate an increase in the attendance of full-time students in the distance learning format, which is displayed in Figure 1.

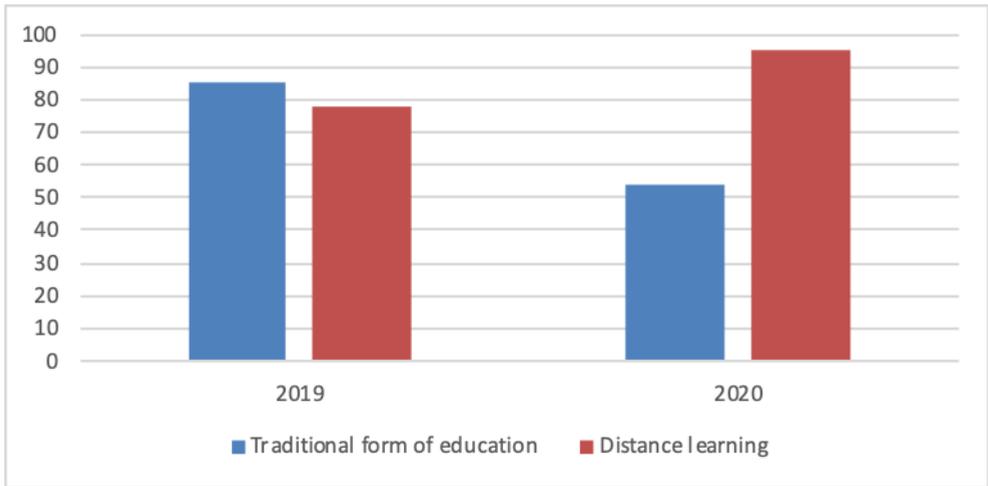


Fig. 1. Dynamics of attendance of classes by full-time students of the Institute of World Civilizations

Observations showed that students began to actively attend classes in 2020 compared to 2019. Of course, the presence of a student in an online class does not always indicate their willingness to actively participate in the learning process. Theoretically, it can be just online, while doing their own business by turning off the video camera and microphone. However, in such cases, the Institute applies the practice of periodic roll call and checking the involvement of each student in the learning process. Speaking about the figures, it is important to note that out of 100% of full-time students, 85% attended classes in the traditional form of education in 2019, and in the distance format in the same year, attendance was 78%. While attendance in 2020 in the conditions of coronavirus in the traditional form was 54%, and in the remote form-95%. That is, as we have already noted above, distance learning was the reason that it became easier for students to attend the lesson, they were able to connect to classes without changing their location, without wasting extra time on the road. It is important to emphasize that these figures and conclusions are given regarding the study of students of the Moscow institute, which implies the availability of a comfortable workplace at home, as well as good technical conditions.

In the course of studying this issue, the following analysis criteria were identified:

- 1) availability of distance learning;
- 2) quality of educational material;
- 3) the academic performance of students;
- 4) professional development of teachers;
- 5) convenience of remote system.

According to these criteria, the impact of distance learning on the quality of education in higher education was determined, which is displayed in Figure 2.

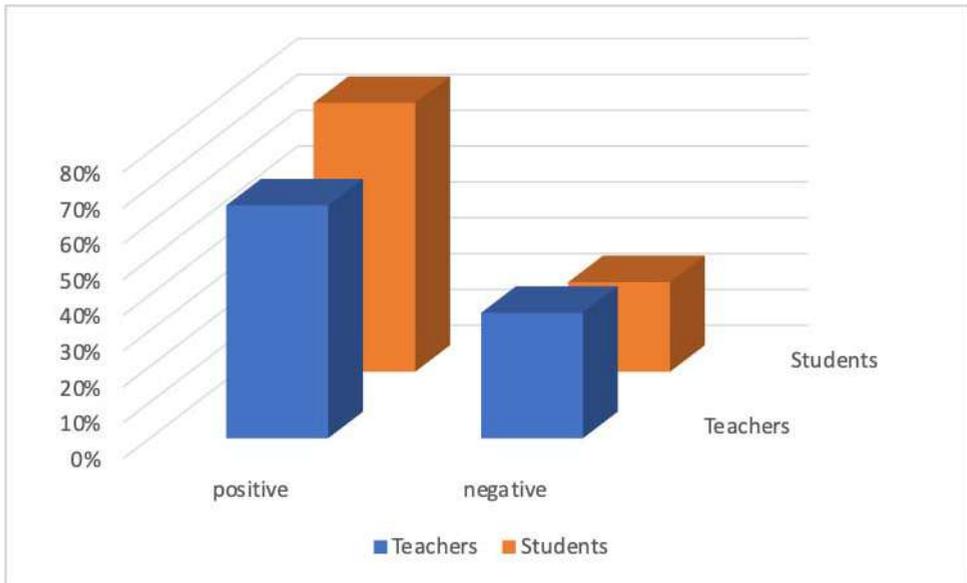


Fig. 2. The impact of distance learning on the quality of education in higher education.

The positive impact of distance learning on the education system was noted by 65% of teachers, while 35% of colleagues noted the negative consequences associated primarily with the lack of control in exams and tests, as well as control works. Among students, a positive impact was noted by 75% of respondents, and 25% supported the negative impact of distance education.

Analyzing each criterion separately, it is important to note that the convenience of distance learning was considered from the point of view of the absence of additional time and financial costs for attending classes. The quality of the teaching material has increased, as the control over the teaching staff by parents who are close to students during classes has increased, as well as free control by the university management over the conduct of classes in a remote format. However, more than half of the teachers note a significant increase in the preparation time for classes, which, according to the authors, requires additional financial incentives in the form of bonuses to teachers. Student performance, as the study shows, has also increased. At the same time, it is important to note that 35% of teachers who note the negative impact of distance learning on the education system, cite as an argument that the student has the opportunity to write off the material on the exam or test, which in turn qualitatively worsens the level of education. As a counterargument, the students we interviewed say that each student should understand the degree of responsibility to himself for the quality of his education. According to the authors, this issue remains quite controversial from a philosophical point of view. Improving the qualifications of teaching staff was also noted in the study as to prepare for remote sessions used more materials and time, however remote format requires the technical training of teachers, which in turn broadens the mind and promotes the use and systematization of the newly acquired knowledge.

Conclusions

The issues of the impact of distance learning on the education system in Russia, as participants of the Bologna Process during the COVID-19 pandemic, have a high level of

scientific and practical significance, since they allow optimizing the regulatory mechanisms in the education system, its improvement and development.

Meanwhile, it is important to note that the transition of the higher education system of the Russian Federation, as a participant of the Bologna Process, to a distance learning format, has both positive and negative consequences. The negative consequences, first of all, should be attributed to the lack of technical equipment of participants in the educational process, especially in the regions of Russia.

However, the study conducted by the authors using student questionnaires allowed us to conclude that Russia coped with the tasks set for the Ministry of Education and Science and the transition was not so painful for both students and teachers. To a greater extent, the reason is the close interaction of higher education and society, especially when countries face such serious challenges as the coronavirus epidemic. In the context of a pandemic, self-organization of both students and teaching staff is important to achieve the highest results.

It is important to continue working in this direction, to improve the experience of the countries participating in the Bologna Process, in particular Russia, in improving the practices of teaching and learning in a distance format. Of course, the remote study format is more acceptable for the higher education sector, in comparison with the school level of education, since students are already more responsibly and consciously involved in the educational process. However, there is a positive experience among younger children, even preschool age. Significant importance in this issue is given to the qualification of the teaching staff. In this regard, it is important to improve the quality of educational materials and take a branching approach in the chosen profession.

Humanity must understand that it is necessary to adapt to the new conditions of life in all spheres, including in the field of higher education.

References

1. Federal Law "On Education in the Russian Federation" of December 29, 2012 N 273-FZ (as amended on December 8, 2020).
2. Order of the Ministry of Education and Science of the Russian Federation dated 23.08.2017 No. 816 "On approval of the procedure for the use of organizations carrying out educational activities, environmental training services."
3. Bataev A.V. Analysis of the world market for distance education // *Young scientist*. 20. 205 (2015)
4. Minnaev E. R. Distance education in Russia: real conditions and development problems. *Higher education in Russia*. **11**. (2008).
5. Prokofieva T.Yu. Formation and development of distance learning in the world, *Problems of local self-government*, **5 (29)**. (2008) [Electronic resource]. Access mode: <http://www.samoupravlenie.ru/29-09.php/>
6. Rodionov DG, Kushneva OA, Terentyeva NA International authority of the Russian higher school: problems and solutions. *Innovacii*. **9 (179)**. 81 (2013)
7. Khakimova L., Lapasova F. The role of distance learning in the higher education system during quarantine measures in connection with the Covid-19 pandemic // *InterConf.*, 2020.
8. Tsirenova M.I. Experience of using massive open online courses in distance learning for Chinese students during the Covid-19 epidemic // *Modernhumanitiessuccess / Advances in the Humanities*, 31 (2020)
9. Distance learning at school closures: how well prepared are students and schools? Information from PISA // Saytorg (https://read.oecd-ilibrary.org/view/?ref=127_127063iiwm328658&title=Learning-remotely-when-schools-close) (accessed 12/19/2020)
10. De Wit H., Deka L., Hunter F. (2015) Internationalization of higher education – what

can research add to the policy debate? In: Curaj A., Matei L., Pricopie R., Salmi J., Scott P. (eds) European Higher Education Area. Springer, Cham, available at https://doi.org/10.1007/978-3-319-20877-0_1 (date of access 12.02.2019).

The impact of digital technology on the quality of higher education

Elena Zaborova

Ural State University of Economics, Department of Applied Sociology, 620144 Yekaterinburg, Russia

Abstract. COVID-19 pandemic intensified the transition to online learning practices. The article aims to analyse how students perceive distance education quality compared to face-to-face education mode. The author argues that the groups of social actors, interested in the promotion of distance education in higher schools, include: university leadership, geographically and physically disadvantaged students. In the period 2015-2020 the group of USUE researchers conducted a series of students' surveys. Analysing the survey findings, the author states that despite the benefits of distance education, students consider that the quality of distance learning is inferior to the traditional face-to-face education mode. Among the problems faced by students in distance learning, is their inability to select information, assess its reliability, and differentiate significant information from insignificant. It is concluded that it is of great importance to continue research into the impacts of digitalization on the quality of higher education.

1 Introduction

We live in the information era, which means a dramatic increase of the information role in the life of society, its transformation into the major productive force, an essential condition for the progress of society and the functioning of the individual. The information age is also called the digital age, thereby emphasizing the rapid introduction of digital technologies, new technical tools, new software and large databases into our lives. The sphere of education is going through these processes as well, as a result, distance forms of education are spreading rapidly, the role of the Internet as a source of knowledge is growing, and the role of the teacher is changing. For Russia, the field of education is of great importance, Russians have not only access to information, but also to education: currently more than half of Russians (54%) aged 25 to 64 years have university degrees (in Canada – 51%, in Israel – 46%, in Japan – 45%, in the UK, Finland, Australia – 38% respectively) [1]. Thanks to digital technologies, the possibility of intercultural interaction between different countries has increased. How will these new processes affect the quality of education? What are the advantages and disadvantages of digitalizing the educational process in higher school? The search for answers to these questions is very relevant.

Methodologically, the paper is based on conceptual approaches set forth in the works of Russian and foreign researchers. The problem of the information society and its characteristics has been studied by the classics of scientific thought D. Bell, M. Castels, N. Luman, J. Masuda, A. Molya, M. McLuen, W. Rostow and others. The problem of

education quality in the context of information and digital processes is now attracting the attention of a wide range of scientists. E.D. Zakunova, A.E. Anisimova, E.A. Seregina [2], K.V. Sluzneva, K.S. Gordeev, A.A. Zhidkov consider distance education as one of the methods of obtaining education [3]. The advantages and disadvantages of distance education are considered by A.A. Vlasova, E.A. Porseva [4], E.A. Rybina, V.A. Rotanova, A.I. Toropova [5] and other authors. G.A. Bondareva, N.A. Guz, N.A. Petrova study trends in digitalization of higher education [6].

2 Materials and methods

The article is based on empirical data obtained as a result of a number of sociological studies conducted by the authors' team of the Ural State Economic University from 2015 to 2020 (2015, n = 703; 2016, n = 830; 2019, n = 571; 2020, n = 200). The research in 2015-2019 was based on studying the opinions of respondents of the Ural State University of Economics (USUE) and Ural Federal University (UFU), in 2020 the data were collected as a result of the study "Assessment of Education Quality by USUE Students" (n = 200), conducted by the USUE Department of Applied Sociology. The author's tools for data collection were developed with the account of empirical experience in sociology.

3 Results and discussion

The research results demonstrate the increasing influence of digitalization on all aspects of the educational process, information technologies are penetrating into all elements of the educational system (its organization, planning, the educational process itself). The situation caused by the COVID-19 pandemic has led to either an almost complete transfer of the educational process to a remote form, or a significant increase in its share in the pedagogical process. Distance learning is becoming typical, day-to-day practice. Forced to engage in remote learning and teaching, students and teachers began to actively master new technologies for submitting material, assessing students' knowledge, and communicating online. At the same time, unfortunately, the quality of education has not improved.

Back in 2017, we wrote that distance education is undoubtedly beneficial for a number of social actors [7]. Therefore, it is beneficial primarily to the leadership of universities, since it means significant financial benefits with insignificant material costs. In an environment where most universities rely mainly on their own sources of funding, without any state assistance, distance education helps universities save on the classroom maintenance, educators' trips, and catering facilities. In addition, promoting a distance form of education means acting progressively, in line with the trajectory prescribed by the state, helps to position the university as an advanced educational institution. That is why university administrations actively promote distance education.

The second group supporting this form of study is the students themselves, especially students living in remote areas (those who are initially deprived of the opportunity to study in person due to the limited physical functions also can be referred to this group). As our research has shown, many of them are married people having to juggle work and study commitments. For them, distance learning is an effective way to obtain a diploma in higher education, without breaking away from the family and workplace. If you add to this the fact that distance learning is much cheaper than full-time education, then the result becomes predictable: students support distance learning via the Internet. In 2019, answering the question "If you currently had the opportunity to choose a form of education, then what would you prefer?" our respondents replied that they would choose distance learning (72.9%) and traditional training (27.1%). Here, perhaps, we see the largest difference compared to the

previous study (2015). Previously, 53.1% of respondents would choose distance learning and 46.5% preferred traditional learning.

While supporting distance learning, respondents are clearly aware that the quality of education they receive is lower than in full-time mode of learning. In terms of the quality of knowledge obtained, the remote form cannot compete with the traditional one: 32.4% of respondents noted that the traditional form provides more opportunities for obtaining quality knowledge. Only 9.2% of students indicated that the distance form provides more opportunities for obtaining high-quality knowledge. Blended learning was considered effective by 27.6% of respondents (2019). Data from the latest study (2020), when full-time students were forced to combine full-time and distance learning, showed that 41.2% of fourth-year students surveyed prefer full-time education (traditional classroom learning) to other learning formats, a third of students (32%) advocate blended learning when distance learning technologies replace part of classroom-based classes (for example, theoretical lectures); only 14% of students preferred distance learning in the format of real-time webinars; and 12.5% of students would prefer a “full-time distance learning”: to listen to recorded lectures at the time convenient for them.

As we can see, the number of those who choose a full-time (classical classroom) form of learning has increased. The number of those who choose a mixed form of training has also risen. The fact that the number of those who prefer the distance form is also higher can be interpreted as a reflection of the fact that remote technologies have firmly integrated into the educational environment and it would undoubtedly be naive to resist their penetration.

Another fact of the educational environment was that the Internet has penetrated into our everyday reality. All experts are unanimous in assessing the positive aspects of the Internet and its enormous role in the development of intercultural cooperation. The Internet has become the main source of information for students. In the recent past, students mainly read books in libraries, listened to lectures by teachers and this educational material was a basic source of information for them. Today they rely on information from the Internet, many books are digitized and posted online, electronic magazines and newspapers are published. However, can the Internet be considered a reliable source of information? As the analysis of the scientific literature shows, it is impossible to rely entirely on this source, rather it is essential to develop criteria and an algorithm to be used for checking information obtained from the Internet.

There is a lot of information on the Internet and it is easily accessible, which can undoubtedly be considered the merit of this information base. However, the source of this information can be anyone, including a not very competent user. Therefore, the question of assessing the information reliability is acute. The abundance of information that today is estimated as an information explosion (in the five previous years, more information was produced by humanity than in the entire previous history, the volume of information in the world increases annually by 30%), gives rise to another problem - its selection. This, in turn, requires time, perseverance, self-organization skills. As our studies showed, not all students have this set of qualities: among the main difficulties that students face when studying online, they point out “a high degree of independent work” (56.6%), “the need for self-organization of the learning process” (34.2%), “lack of constant control by the teacher” (22%) (2019).

Knowledge is a form of information that is dominated by logic, clarity, rigor, a clear distinction between truth and error, its pinnacle is scientific knowledge. The information itself does not imply in-depth immersion in the subject under study; it is superficial and useful for solving practical problems. Fragmented stimulus patterns [8], chaotic movement of frames, sounds, narratives, etc. are observed in Internet information, elements of reality and fiction are mixed in it. It resembles wisdom, but is devoid of its depth. In the information space, events in their material existence are included in a virtual context filled with simulations. Today, for a person, disaster films do not differ from the disaster itself. The

result is the spread of semblance outside the television screen or computer display to the real experience of a person, which he is no longer able to distinguish from the virtual reality [9].

It should be stressed that human education also implies a high level of moral development, but there are virtually no filters on the Internet that would block immoral information, cruelty, Internet trolling. As a result, today the path to true education has become longer. S.N. Golubchikov fairly states “From the long pedagogical experience the author drew a conclusion: despite the growing informatization, knowledge of the computer, Internet technologies, students forgot how to think, reflect, and draw conclusions from the material they read. A rare defence of the diploma thesis takes place without the student (master, and a venerable scientist) being able to make a report without reading it on a piece of paper or from the presentation screen... more and more authors cannot express their thought in a clear, understandable, simple language...” [10]. Today, in this situation, the role of a teacher is indispensable; it is increasing, since many students themselves cannot assess the reliability, importance and value of the information that they receive. As our research has shown, students need the advice of teachers and their assistance.

4 Conclusion

In 2017, President of the Russian Federation V.V. Putin put forward the thesis that the digital economy will determine the future and act as the locomotive of the country's development. The issue of digital transformation strategy of the Russian economy was put on the agenda [11]. Today it is believed that it is digital transformation that will become the material and technical embodiment of nano - and biotechnology, artificial intelligence, the “Internet of things”, robotics and other modern technologies based on electronic devices, this will be the economy of the sixth technology revolution, so the introduction of digital technologies into the educational space seems to be an inevitable process. Without a doubt, the very fact that students and teachers attempt to master Internet technologies is already an indicator of their level of competence, the search and absorption of information through the Internet is one of the options for self-education that is so vital in the current era.

It is essential to study further the impact of digitalization on higher education in general and on the quality of higher education obtained, in particular. While the situation is constantly changing, several aspects of the problem remain unclear. Thus, the position of teachers regarding the introduction of new digital technologies in the gender and gender-age context, an analysis of the effectiveness of using various methods in online teaching (for example, the effectiveness of tests or presentations) require further investigation.

References

1. V.N. Stegnyy, Formation of the Humanitarian Environment at the University, **1**, 13 (2017)
2. E.A. Seregina, *Perspect Sci Educ*, **2**, 25 (2018)
3. E.D. Zakunova, A.E. Anisimova, K.V. Sluzneva, K.S. Gordeev, A.A. Zhidkov, *Econ Manag Innov Tech*, **11**, 88168 (2018)
4. E.A. Porseva, *Econ Manag Innov Tech*, **5**, 89328 (2019)
5. E.A. Rybina, A.A. Vlasova, V.A. Rotanova, A.I. Toropova, A.S. Sochneva, *Econ Manag Innov Tech*, **6**, 92561 (2020)
6. N.A. Petrova, G.A. Bondareva, *World Sci Cult Educ*, **5**, 353 (2019)
7. E.N. Zaborova, I.G. Glazkova, T.L. Markova, *Sociol Res*, **2**, 131 (2017)
8. G.V. Osipov, S.V. Klimovitsky, *Human Socio-Econ Soc Sci*, **5**, 54 (2018)

9. M. Castells, *The information age: Economy, society and culture* (Wiley-Blackwell, New York, 1999)
10. S.N. Golubchikov, *Bul Environ Educ in Russia*, **3**, 22 (2015)
11. Yu.V. Yakutin, *Manag Bus Adm*, **4**, 27 (2017)

The stages of students' behaviour change functioning as predictors of dropout

Csilla Marianna Szabó^{1*}, Haneen Matar²

¹ Educational Sciences, Institute of Teacher Training, University of Dunaújváros, Dunaújváros, Hungary

² Psychological Sciences, Aluma for Social Responsibility - for Jewish Identity, Israel

Abstract. Due to the expansion of higher education, the number of students attending universities has significantly grown for the last few decades. However, many students drop out of higher education due to several reasons, such as lack of motivation, inadequate learning techniques, or teachers' requirements. One of the main reasons is motivation, which is closely connected to behaviour change. The concept is taken from the medicine discipline but can properly be applied in education as well. The stage of behaviour change can predict the possible risk of dropout. The current research was conducted among the freshmen IT students in two countries (Hungary, Israel) at the beginning of their second university semester in order to measure and identify at which stage of the behaviour change cycle they are situated. The results could draw university management's attention whether they need to introduce and implement any prevention programs to avoid students' dropout.

1 Introduction

Due to the expansion of higher education, the number of students attending universities has significantly grown for the last few decades. Nevertheless, many students cannot finish their higher education studies. University dropout exists in all countries and most higher education institutes face and must cope with this problem. Regarding OECD countries, only 39% of full-time bachelor students graduate within the period of their standard curriculum, while after additional three years, this ratio increases up to 67%. As for dropouts, more than 10% of bachelor students leave their education during or at the end of the first academic year. The tendency is the same in the United States with nearly the same figures [1]. As the research introduced in the current paper focuses on two countries: Hungary and Israel, their figures must be highlighted. Based on the data from the National Graduate Career Tracking System, Hungarian statistics are significantly similar to those of OECD countries: the average dropout ratio on bachelor level is about 36%; however, it is higher, nearly 40% among students in technical study programs [2]. On the other hand, Israel has much better statistics: 60% of students complete their bachelor studies during the normal length of the training, and after an extra 3 years, plus 23%, which means altogether 83% [1].

*Corresponding author: szabocs@uniduna.hu;

Despite the significance of this problem, it has received enough attention in higher education policy only in the last few years. Student dropout is considered not only as a failure in students' academic career, but it is also wasting money on all levels: on the individual, family, and institutional levels, and on the level of society [3]. Students lose one or two semesters, the family loses money as university education burdens the family budget. The university loses students and with them either state normative funding or tuition fee, and society loses a future expert. Not to mention the failed social and cultural mobility both on individual and family level; as well as frustration and health problems due to the failure [4]

The current study introduces several factors that could contribute to students' unsuccessful academic career and the increase of dropout risks. Besides the different dropout factors, the paper focuses on a specific aspect: students' behaviour, or rather their behaviour change cycle, presenting the attributes of the stages of this cycle. The research, which was conducted in February 2020 among Freshman IT students in two countries (Hungary, Israel), indicates whether there are any differences between the two nationalities on students' behaviour change cycle.

2 Materials and methods

2.1 Definition of dropout and contributing factors

Although there have been several studies on higher education dropout, its real reasons and the factors leading to that are quite various. What is more, students who dropped out of one study program, later could take a degree in another one, which means that we can differentiate institute dropout (leaving the particular higher education institute) and system dropout (leaving the higher education system) [5]. As the figures collected from the universities in the higher education system refer to the phenomenon of institute dropout, we take the definition of dropout as the number or ratio of students who leave the higher education institute without a qualification.

Some groups of students are more endangered of dropping out. Freshmen in all study programs and students in technical, IT, and natural scientific programs [6], [2]; students who learn part-time and work parallel with their university studies [2] [7]; students with low social and economic family status [8], [7]; or students who do not learn according to their standard curriculum and have one or more passive semesters [9], [2] are more likely to drop out. In Hungary, another factor may contribute to leaving the institute without qualification: foreign language knowledge, or rather foreign language certification – as it is the compulsory element for taking a degree [10].

One of the first scientists studying the phenomenon of higher education students' dropout was Tinto. He built his model on three basic elements: pre-entry attributes, commitment, and integration. Regarding the pre-entry attributes, they include students' family background, individual attributes, and pre-college schooling [5]. Other authors [11] also highlight that the role of students' economic and cultural capital brought from their families is unquestionable, as well as the parents' expectations to and support for their children's further studies [5], [4]. According to Tinto's model, the pre-entry attributes significantly influence and predict students' expectations, goals, and commitment towards their higher education studies [12]. Depending on the students' commitment level, they could integrate into the system of the university. Integration also consists of two branches: the first is academic integration, which refers to a learning experience, academic results, and intellectual development, while the second is social integration, which means interpersonal relationships with their teachers and peer students. [5]. The higher level of commitment results in a higher level of integration, which reduces the risk of leaving the university.

Examining the factors leading to dropping out, they could be categorized by various principles. The most frequently used categories are personal and institutional factors [8], [13]. Students' attitudes and behaviour, their academic results, and the socio-economic status of their families are considered personal factors. If students have had academic failure; if they have a negative attitude to school and learning; if they lack motivation; if there is a shortage in their academic knowledge; if they do not have effective learning techniques; if they belong to a disadvantaged ethnic minority; if their parents have a low qualification, they are more likely to give up their university studies and leave higher education before taking the degree [6], [13]. Institutional factors include the following elements: if there are problems in organising education; if the compulsory or optional learning materials are not available; if professors have a shortage in their methodological and psychological competences; if teachers' requirements are too high and their assessment is not consistent or fair; if students cannot finance their studies or they have work parallel with their studies; if the labour market braindrains students [6].

The same or very similar reasons could be categorized in another way. Pusztai and her colleagues [14] listed factors in three categories: PULL, PUSH, and FALL OUT types. The factors that pull students out of higher education are called PULL-type factors. They incorporate reasons, such as financial problems, family responsibilities, changes in the family, sickness, living far from the university, successful employment and reasonable salary without a degree, and finally the social devaluation of higher education qualification. Push factors are connected to the higher education institute as these factors push students out of the system. That category includes reasons when the institutional regulation is rigid; students are not provided with sufficient and adequate information about their study program; the requirements and the assessment system are not clear or not standardized; the tuition fee is unreasonably high. Elements of the FALL OUT group are in regard to students' disillusionment with their studies and/or the institution, when they lose their motivation or interest in their chosen career, or when they consider the progress in their studies not good enough. The fall-out factors are rather typical of the early dropouts. [14]

Miskolci, Bársony, and Király [15] listed four dimensions of dropout reasons: 1) economic, 2) personal psychological, pedagogical, and learning, 3) social and cultural, 4) institutional. One of the most important factors of economic reasons is the economic status of the student's family. Regarding the psychological factors, students' intrinsic motivation, such as being goal-oriented or the wish to be appreciated by others, is one of the most essential ones. Students with higher motivation level are more persistent and have more intention to face and cope with challenges [16] The motivation level could be reduced by the facts if students are not admitted to the study program they had wanted to, or if they have low academic results in the first few semesters and have low self-efficacy [15]. Social and cultural factors incorporate the impact of the family and that of relationships in students' macro environment. Examining the details of social and cultural reasons, the following elements could be mentioned: parents' qualification level, a referential person with a higher education qualification in the student's life, the type of secondary school, the student's place of living, etc. Concerning the institutional reasons, the most important elements are the infrastructure and the prestige of the university; the quality of the training; teachers' commitment, and their effective support for their students [15], [6].

Finally, we would like to highlight one more but rarely analysed factor: trust. Trust in education means the convincement that the education system, institutions, and experts function according to legal and ethical rules, and the operation order, as well as they support individual students when they enter the higher education institute. The preliminary trust is continuously measured and could be reinforced or reduced according to students' experience. [17]

2.2 Behaviour change cycle

Miskolci and his colleagues highlighted the significance of psychological and pedagogical factors, among them that of motivation in the process of either dropout of or commitment to higher education. Motivation is in close connection with the individual's attitude and behaviour towards their environment and activities. Scientists consider attitude and behaviour not as a stable phenomenon but a continuously changing continuum. Students should change their attitudes, behaviour, and learning techniques when they enter higher education, and should acquire new methods and techniques, as well as change their attitude and behaviour to be able to adapt to new and higher requirements.

The individual's readiness for change is a comprehensive attitude that simultaneously is influenced by the content (what has been changed), the process (how is changing), the context (in what situation it is changing), and the characteristic of the person who is involved in the change. Hanpachren elaborated a research instrument to measure the level of individual readiness for change. It consists of three dimensions: resistance, participation, and promotion. [18] Cunningham and his colleagues [19], also listed three groups of factors influencing the level of readiness for change: individual contributors, organisational contributors, and social factors. Individual contributors refer to the benefits and risks that the individual identifies, and the person's self-efficacy. People with a higher level of confidence in their ability could more favourably cope with change. Secondly, organisational factors also impact the readiness for change. Karasek [20] analysed employees and grouped jobs into two categories: active and passive. Active jobs afford higher decision latitude, increase learning opportunities, and so, contribute to the development of new behaviour patterns. However, passive jobs limit an individual's opportunity for decision making. Finally, social support within the organisation, received both from peers on horizontal level and superiors on vertical level increase the readiness for change [19].

Behaviour change cycle is similar to Hanpachren's model [18] but while the latter is a linear process, the former is a cycle. Behaviour change has long been known and used in medicine, especially in working with addicts. The behaviour change model, which was called the transtheoretical model (TTM) of change, was elaborated by Prochaska and DiClemente in connection with smoking cessation [21]. Scientists claimed that two interrelated dimensions are needed to exactly assess an individual's behaviour modification: stages of change and process of change. The former includes four stages: precontemplation, contemplation, action, and maintenance, which represent the temporal, motivational, and constancy aspects of change. The latter focuses on activities and events that create a successful modification of problem behaviour. Prochaska and DiClemente elaborated a cycle introducing a relapse, an event that terminates either the action or the maintenance phase bringing the whole process back to the initial stages of precontemplation or contemplation, which gives a cycling or recycling attribute to the whole process. Although the stages of change are closely connected to an individual's motivation, this model has hardly been used in pedagogy, especially as a predictor for dropping out. [21] The transtheoretical model (TTM) of change later was modified a bit to have five stages: precontemplation, contemplation, preparation, action, and maintenance.

Precontemplation (PC) is the first stage, where individuals have no intention at all to change their behaviour, usually, in the next 6 months. Precontemplators typically are not aware or underaware of the problems and the need for change. However, people in their surroundings recognise the problem, and contemplators start thinking about the problem or seek help due to others' pressure. People on precontemplation level feel and show resistance to recognising or modifying the problem [22], and they often deliberately avoid information. On Contemplation stage (C), individuals openly state their intention to change within the next six months. Although they are aware of the problem and that of the benefits of change, they evaluate the costs of changing high too much, and they are not committed to take an

action. They hesitate between the two edges: they are rather conscious about their dysfunctional behaviour, but they fear the amount of effort and energy they must take to overcome it [22]. That is why contemplators are often seen as procrastinators [23]. Preparation (PR) is the stage in which individuals intend to take steps to change, take actions in the next month, which results in small behavioural changes. Although individuals have already reduced their problem behaviour, they have not reached the criteria for effective actions. [22], [23]

On the Action stage (A), individuals modify their behaviour, experiences, and environment to overcome the problem. The Action stage refers to the most overt behaviour change and requires a significant commitment of time and energy from the individual. Changes in behaviour are the most recognised by others. [22]. People generally change their behaviour for 3-6 months, but sometimes only for a much shorter time. In order to stay longer on Action stage or even step to the next stage, individuals should focus on restructuring their cues and finding new social support, bolster their self-efficacy to be able to cope with obstacles, and continuously make themselves aware of the long-term benefits of change [23]. On the Maintenance stage (M) individuals work to prevent relapse and consolidate all gains they attained during the Action stage. Maintainers are reported to have the highest level of self-efficacy and be the least frequently tempted to relapse. They work hard to stabilize their behaviour change and avoid relapse. [22] [23]

However, students quite often move through the stages in a spiral pattern. Although a lot of students move from one stage to the next, many of them relapse once or several times during the whole process, getting to an earlier stage. Some relapsers experience a deep failure, and feel embarrassed, ashamed, and guilty due to their unsuccess. As a result of their negative feelings, they often return to the Precontemplation stage and may remain there for various periods. However, most relapsers raise again to the Contemplation and later to the Action stage.

2.3 Research method and process

The research was conducted with a digital self-administered questionnaire in two universities of two countries (Hungary and Israel) among the first-year IT students in February and March of 2020, at the beginning of their second semester. The population was chosen according to the fact that the ratio of dropout students is the highest during the first academic year and significantly high among students learning in STEM programs. The number of the whole sample was 101, out of which 72 Hungarian and 29 Israeli students.

The questionnaire was elaborated some years ago by Israeli colleagues. Besides some socio-economic questions, the questionnaire contained nearly 40 statements referring to students' motivation, attitude towards their studies, learning control, self-efficacy, and their stage of behaviour change. Students had to indicate their level of agreement on a 7-grade scale, where 1 meant it is not true at all and 7 – it is totally true. Out of the statements, altogether 14 refer to the stages of behaviour change: three-three indicate precontemplation and contemplation stages, four-four nominate Action and Maintenance stages. The survey aimed to find out students' motivation level according to the stages of the change cycle. The hypothesis was that most students are on pre- or contemplation level but there is no significant difference between the students learning in the two countries.

3 Results and discussion

Examining students' level of agreement referring to the four stages of change, we can state some general results based on the data in table 1. Most of the statements indicating the precontemplation and contemplation stages have fairly low means as the average of most

statements is not higher than 3.50 on the 7-grade scale, most of them are under 3.00. This means that students evaluated that the statements implying low motivation levels are a little bit or moderately true to them. The only exception is the last variable on the contemplation stage, the mean of which is 5.04. However, this statement points out a rather conscious attitude and behaviour – comparing with the other two statements on this stage.

Regarding the statements referring to the action and maintenance stages, the averages of most variables are much higher, in between 3.84 to 5.34, moreover, most of them are around 5.00. This means that students mostly agree with the statements, which means they modify their behaviour, take some actions and efforts to improve their result, and not to relapse. However, the means of two exceptional are surprisingly low: 1.96 and 2.66, indicating that they are not true or only a bit true to students. Although these statements express students' activity and their attitude to maintain the level of their academic performance, they suggest a negative approach: I do nothing, I no longer need to invest.

Table 1: Students' agreement level with the statements referring to the stages of change

Stage	Statements	Mean	Mean HU	Mean IS
Precontemplation	I have no schooling problems and if something doesn't work, it's not because of me.	3.50	3.64	3.17
	Whenever I don't pass an exam, it's probably not my fault, is because the exam was hard.	2.76	2.94	2.31
	Others think that I have problems in my field of study that need to be solved, but I think differently.	2.57	2.54	2.66
Contemplation	Schooling is important to me, but when I come across a hard material, I give up very quickly.	3.00	3.00	3.00
	When I encounter a problem in the field of studies, I start to think that this topic is not for me.	2.50	2.64	2.14
	When I come across a problem in the curriculum, I think about the problem and take into account the various considerations and possible implications.	5.04	4.92	5.34
Action	If I can't solve my homework, I'll keep trying despite the difficulty.	5.34	5.08	5.97
	When I encounter problems, I do nothing about it.	1.96	1.97	1.93
	If I recognize that my studying method is ineffective, I try new learning methods.	4.68	4.32	5.61
	If I come across something different than I expected/planned, I choose to act and deal with it.	4.75	4.42	5.59
Maintenance	To me, it is very important to learn for each lesson/practice.	4.89	4.56	5.62
	Although my grades were excellent, I always felt I need a push to help me continue to learn and succeed.	3.84	3.39	4.97
	My grades are excellent, so I understand that I no longer need to invest.	2.66	3.01	1.79
	Despite my impressive achievements in school, I think I should continue to invest in my studies.	5.20	4.82	6.14

Table 1 contains not only the means of the whole sample but also the means of both Hungarian and Israeli subsamples separately. Examining the average of the answers of the two nationalities, the following tendency can be noticed: Israeli students evaluated the variables referring to precontemplation and contemplation stages lower, while the variables implying action and maintenance stages are higher than Hungarian students – except for the three variables mentioned above, where the tendency reverse. One of the three variables belong to the precontemplation stage – this result reinforces the tendency. The other two

variables belong to the action and the maintenance stages; however, they express students' negative attitudes. It can be declared that the statements demonstrating the higher stages of behaviour change are more true to the Israeli students than to the Hungarian ones.

The differences between the two nationalities were analysed by Independent Sample Test, according to which the difference is significant at eight variables, which are presented in Table 2. Based on the results, some tendencies could be seen. Much more significant differences can be found between Hungarian and Israeli students when the statements refer to the higher stages of behaviour change. Except for two variables, Israeli students agree with these statements on a higher level than Hungarian students do, as in most cases the difference of the means is negative. The differences between the means of Hungarian and Israeli students are considerably big. The variables where the difference is the biggest are the following: "If I recognize that my studying method is ineffective, I try new learning methods.", "Despite my impressive achievements in school, I think I should continue to invest in my studies.", and "Although my grades were excellent, I always felt I need a push to help me continue to learn and succeed.". The three statements, on the one hand, refer to the efforts students make for better acquisition of the learning material; on the other hand, their stamina to continue their hard work in order to maintain their good grades. The results demonstrate that Israeli students are on the higher stages of the behaviour change cycle, which means they are less likely to drop out.

Table 2: Significant differences between Hungarian and Israeli student by Independent Sample Test

Statements	F	t	Sig.	Mean Difference	Std. Error Difference
Whenever I don't pass an exam, it's probably not my fault, is because the exam was hard. (PC)	2.314	1.989	.049	.634	.319
If I can't solve my homework, I'll keep trying despite the difficulty. (A)	4.318	-3.445	.001	-.882	.256
If I recognize that my studying method is ineffective, I try new learning methods. (A)	4.759	-4.180	.000	-1.288	.308
If I come across something different than I expected/planned, I choose to act and deal with it. (A)	1.553	.216	.000	-1.170	.305
To me, it is very important to learn for each lesson/practice. (M)	3.703	-3.360	.001	-1.169	.348
Although my grades were excellent, I always felt I need a push to help me continue to learn and succeed. (M)	.076	-4.356	.000	-1.577	.362
My grades are excellent, so I understand that I no longer need to invest. (M)	1.868	4.143	.000	1.221	.295
Despite my impressive achievements in school, I think I should continue to invest in my studies. (M)	.473	-3.802	.000	-1.318	.347

According to [15], motivation and self-efficacy play an important role in the dropout process. The questionnaire contained four variables indicating students' self-efficacy. It was examined whether the self-efficacy variables correlate with the variables indicating the stages of behaviour change. Table 3 presents that nearly all behaviour change variables that have a significant correlation with self-efficacy statements belong to the action and the maintenance stages. These correlations are positive and medium-strong – except for one variable, which implies no action. In this case, there is a correlation with only one behaviour change variable, moreover, it is negative. There is one more exception to the tendency, the variable on the contemplation stage. It has medium strong positive correlations with all self-efficacy

variables. This result is obvious as this statement implies students' conscious attitude to their studies.

Table 3: Correlation between self-efficacy and stages of behaviour change

	I'm sure I can understand the hardest learning materials.	I believe I am as smart and clever as others.	I believe I can excel in my university studies.	I have high endurance and independence capabilities.
I have no schooling problems and if something doesn't work out, it's not because of me. (PC)				.310**
When I come across a problem in the curriculum, I think about the problem and take into account the various considerations and possible implications. (C)	.358**	.528**	.501**	.569**
If I can't solve my homework, I'll keep trying despite the difficulty. (A)	.502**	.366**	.504**	.462**
When I encounter problems, I do nothing about it. (A)				-.313**
If I recognize that my studying method is ineffective, I try new learning in new methods. (A)	.363**	.501**	.489**	.456**
If I come across something different than I expected/planned, I choose to act and deal with it. (A)	.525**	.386**	.483**	.370**
To me, it is very important to learn for each lesson/practice. (M)	.377**	.352**	.476**	.395**
Although my grades were excellent, I always felt I need a push to help me continue to learn and succeed. (M)	.399**	.209*	.394**	
Despite my impressive achievements in school, I think I should continue to invest in my studies. (M)	.612**	.451**	.623**	.466**

Correlation results definitely present that the students who have a higher level of self-efficacy are on the higher stages of behaviour change: they are more ready to modify their behaviour and attitude, more willing to take concrete actions, and make more efforts to maintain the results they have reached. As both self-efficacy and positive behaviour significantly contribute to students' progress during their higher education career, these factors support students' opportunity for academic success and decrease their risk to drop out. Moreover, as these factors confirm each other, their influences are combined, and their positive impact on students' attitude, behaviour, as well as their achievement is summed up.

If the hypotheses are tested, it turns out that both hypotheses must be rejected. Regarding the first, the results prove that students agreed with the statement referring to the action and maintenance stages on higher level. Considering the second one, the Independent Sample Test showed a significant difference between the two subsamples in eight out of the 14 variables. What is more, six of these statements belong to the higher two stages of behaviour change, which means that the significant difference between Israeli and Hungarian students is more typical on a higher level.

Conclusion

University dropout has many reasons from the not favourable or non-supportive family or the shortage in students' knowledge and their inadequate learning techniques to the rigid administrative system in higher education and professors' insufficient teaching methods or unclear requirements. However, students' motivation level and their attitude to their higher education career are essentially important. Students with higher motivation and better attitude are more likely to accomplish their courses and successfully finish their studies within the period of the standard curriculum. Therefore, students' motivation and the stage of the behaviour change when they start their higher education career could be one of the most important indicators of dropout reasons. Examining and identifying freshmen's behaviour change, as well as their level of intrinsic and extrinsic motivation, together with their level of self-efficacy could predict students' progress or failure at the university.

Identifying the stage of students' behaviour could be a starting point of a prevention program. Correct recognition of the stage is in vain if no other steps are followed. The question is how students could be convinced about the necessity to change their behaviour and how they could be motivated to take actions. Since the students who are on the lower stage of behaviour change cycle, are usually the ones who have a low level of intrinsic motivation and that of self-efficacy. It means they need more external support to be able to first recognise their shortcomings, second, decide to take steps to improve the situation, and third, take real actions. Based on the results of the questionnaire indicating students' motivation, self-efficacy, and behaviour stage, a complex preventive program should be launched with providing support for these students. The program could contain several different elements, such as mentoring students at risk, continuously monitoring their progress, providing for them both scientific and psychological support, regularly giving them positive feedback, and involving them in students' communities – just to mention some of backing and encouragement. All the investment is worth doing as preventing students from dropout not only saves money on all levels (individual, family, institutional, and social) but also increases the number of professionals in society.

References

1. How many students complete tertiary education? <https://www.oecd-ilibrary.org/docserver/62cab6af-en.pdf?expires=1610041524&id=id&accname=guest&checksum=C34791F95A0AFAFF863D9219B22AE876> [downloaded: 06.01.2021.]
2. Harkányi, Á. M. Lemorzsolódás a műszaki képzési területen a 2016-os Felsőoktatási Pályakövetés kutatás alapján. *Felsőokt. El. Jel.* **2**, 3. 15 (2018)
3. Lukács, F. – Sebő, T. Az egyetemi lemorzsolódás kérdőív vizsgálata. *Isklakultúra*. **10**. 78 (2015)
4. Fenyves, V. et.al. Kísérlet a lemorzsolódás mértékének és okainak megragadására a Debreceni Egyetem Gazdaságtudományi Kar példáján. *Neveléstudomány*, **19**. 5 (2017)
5. Tinto, V. Dropout from higher education: A theoretical synthesis of recent literature. *Rev. Ed. Res.*, **45**, 1. 89 (1975)
6. Szabó, Cs. M. Reduce Student Dropout and Support their Success: Complex Program in Higher Education. In: András, I. - Rajcsányi-Molnár, M. (edit.) *East - West cohesion II*. Subotica, Čikoš Group. **37** (2018)
7. Molnár, B. A felsőoktatásban tapasztalható lemorzsolódás lehetséges okai. *Interdiszciplináris pedagógia és a felsőoktatás alakváltozásai*. VII. Árpád Kiss Conference Remembrance, Debrecen (2011)
8. Pusztai, G. – Fónai, M. – Bocsi, V. A társadalmi státusz transzmissziója és a felsőoktatási lemorzsolódás. *Acta Med.e et Soc.* **10**, 28. 5 (2019)

9. Szabó, Cs. M. – Bacsa-Bán, A. Revealing the Reasons Leading to Students' Drop-out at the College of Dunaujváros. In: Pract. and The. in Syst. of Edu. **10**, 1. 81 (2015)
10. Szabó, Cs. M. – Bacsa-Bán, A. Students' Drop-out, Certificate instead of Diploma? Present State and Possible Improvements. In: András, I. - Rajcsányi-Molnár, M. - Németh, I. P. (edit.) *Szimbolikus közösségek*. 91 (Dunaujváros, DUF Press, (2015)
11. Pusztai, G. *A láthatatlan kéztől a baráti kézíg. Hallgatói értelmzői közösségek*. Budapest: Új Mandátum Kiadó. (2011)
12. Józsa, G. Lemorzsolódási rizikófaktorok a felvételi adatbázis alapján. *Iskolakultúra* **29**, 2-3. 3 (2019)
13. Fehérvári A. Lemorzsolódás és a korai iskolaelhagyás trendjei. *Neveléstudomány*, **3**, 3. 31 (2015)
14. Pusztai, G. et.al. Dropped-out Students and the Decision to Drop-out in Hungary. *CEJER* **1**, 1. 31 (2019)
15. Miskolci, P. – Bársony, F. – Király, G. Hallgatói lemorzsolódás a felsőoktatásban: elméleti, magyarázati utak és kutatási eredmények összefoglalása. *Iskolakultúra*, **28**, 3–4. 87 (2018)
16. Gilmore, L. et.al. Mastery motivation of university students in Australia, Hungary, Bangladesh and Iran. *Hungarian Ed. Res. J.*, **7**, 2. 178 (2017)
17. Pusztai, G. Ha elvész a bizalom. *Educatio* **27**, 4. 623 (2018)
18. Lizar, A. A. – Mangundjaya, W. L. – Rachmawan, A. The Role of Psychological Capital and Psychologicxal Empowerment on Individual Readiness for Change. *J. Dev. Areas*. **49**, 3. 343 (2015)
19. Cunningham, C. E. et. al. Readiness for organizational change: A longitudinal study of workplace, psychological and behavioural correlates. *J. Oc. and Org. Psycho*. **75**, 4. 377 (2002)
20. Karasek, R. A. Job demands, job decision latitude, and mental strain: Implications for job redesign. *Adm. Sc. Q.*, **224**, 285 (1979)
21. DiClemente, C. C. et. al. The Process of Smoking Cessation: An Analysis of Precontemplation, Contemplation, and Preparation Stages of Change. *J. Cons. Clin. Psycho*. **59**, 2. 295 (1991)
22. James, O. et. al. Applying the stages of change. *Psychotherapy in Australia*. **19**, 2. 10 (2013)
23. The Stages of Change. <https://www.cpe.vt.edu/gttc/presentations/8eStagesofChange.pdf> [downloaded: 10.01.2021.]

Theoretical and methodological aspects of assessing the impact of migration flows as a consequence of the Bologna process on the security of the state

Oleg N. Slobotchnikov, Zarina R. Bitieva, Mikhail V. Shatokhin, Elizaveta V. Shiianova*

NANO HE Institute of World Civilizations, Leninsky Prospekt, 1/2k1, Moscow, Russia

Abstract. The article presents theoretical and methodological aspects of assessing the impact of migration flows caused by the participation of a number of states in the Bologna Process on the security of the state. The research carried out by the authors make it possible to substantiate the relevance of the development of methodological tools for the impact of migration processes on the security of the country. Since inclusion in the Bologna Process implies an increase in migration flows. The implementation of the methods presented is confirmed by the results of its practical adaptation based on a comparative interstate analysis. The key advantages of the methodology developed by the author are the ability to dynamically assess the effect of migration management in the country for a certain period, which should become the main one for adjusting government decisions in this area of regulation, along with the formation of reasonable conclusions about the positive or negative impact of the migration on the level security, based on the absolute value of the migration effect index.

Introduction

One of the most pressing trends in the development of the current global economy is globalization, which has a significant impact on both the change in the content of the global economy itself and the development of national systems. The impact of globalization on the existing processes in the present-day world is extremely multifaceted. One of the main aspects is the extended border crossing, taking into account both and political factors. The opening of borders and even, in a certain sense, continents provided a vital impetus for the activation and development of migration processes. Various levels of socio- development of states, geopolitical instability in certain regions, and general patterns of the international division of labor have become extra incentives to boost up the migration. The essential characteristics of migration make it possible to identify both positive and negative impacts on donor and recipient countries. There were periods when migration as a global phenomenon on an international scale had a radical impact on the change in the level of

* Corresponding Author. Email: shato-hinm@mail.ru

socio- development of a particular state. It might change the characteristics of its political and national-ethnic structure. Such kind of changes within under-migration-countries cannot fail to be of concern. Given conditions require effective policies to manage them. In this regard, government agencies along the countries are developing and implementing large-scale migration management programs. The increased level of relevance of the implementation of measures of state regulation in this area is caused by the significant impact of migration on the state security. Achieving the required and the highest possible level of security is a strategic and priority target for any state. Better-managed migration is one of the most key factors in a set of measures to achieve it. The high level of correlation between migration and the country's security requires the development of a capacious methodological toolkit that allows, on a scientific basis, to carry out a verified assessment of migration impact on the changes in state security.

The objective of this research is to assess the theoretical and methodological aspects of the migration processes' impact on the security of the state. Achieving the objective requires solving the following range of tasks:

- to substantiate the relevance of the development of methodological tools for the impact of migration processes on the security of the country;
- to highlight a set of criteria for determining the scale and intensity of migration processes at the national level;
- to form some elements of an integrated approach to assessing the impact of migration processes on the security level of the country;
- to carry out a practical adaptation of the developed methodology based on a comparative interstate analysis.

Materials and Methods

The methodological basis for the implementation of this paper were some general scientific research methods, among which it is necessary to highlight research, analytical synthesis, scientific abstraction, statistical, -analytical, monographic, selective observation. The use of the specified set of methods will make it possible to form a reliable assessment of the impact of the intensity of migration processes on the level of security of the state. The developed methodological toolkit will create the foundation for a deeper scientific study of the variability of security under the influence of the migration scale. That is one of the most significant phenomena of the modern world economy in the context of globalization.

The methodology developed in the scientific paper will be adapted, regarding the use of a reliable statistical base of publicly available sources.

Results

The security of the state on the current globe scale with its many threats is one of the key factors in making managerial decisions at the state level. security is one of the most relevant elements of such a capacious concept as national security. The adoption of a wide range of and political decisions by the Governments among the countries is conditioned by the desire to achieve the highest possible level of security. The essence of security has been studied for a long by various authors. The content of the article is disclosed by the most fundamental interpretation of this phenomenon. Some authors propose to consider the interpretation of the essence of security through the prism of the stability of the state. This point of view, in particular, is being covered in the publication by Akhivalov A.U. [1, p.31]. security is the ability of the state's economy to function progressively within the framework of existing international relations and to be resistant to fluctuations in the global

environment. Thus, in this approach, the main criterion for ensuring the necessary level of security of the state is the degree of the national system's stability, considered in conditions of turbulence of external factors.

Another approach to disclosing the essence of a country's security bears an evolutionary nature and is determined by the level of intensity of basic processes within the country. Certain aspects of this approach are, to one degree or another, considered in a scientific article by Orlovskaya T.N. [7, p.21]. Based on the synthesis of the conceptual foundations of this approach, it can be concluded that security is characterized by the degree of development intensity of crucial financial, , and innovation-investment processes in the state. Those are expressed in the rates of growth, taking into account the available resource potential and the quality of its use.

The third approach to the essence of security allows us to consider this phenomenon concerning the degree of independence of the state from external influence in the financial and aspects. In this case, security is the ability of the national system to effectively develop on the principles of independence and self-sufficiency in the absence of critical dependence on external sources of funding or resource bases, but taking into account the communication activity within the framework of international relations.

The interpretations presented in the research make it possible to form a comprehensive opinion on the essence of the security of the state. Each of the approaches presented reflects important aspects of ensuring security, but gives a complete and comprehensive picture of it. The author's view on this problem is that security is a complex concept that includes a triad of elements in the form of resistance to external factors, achieving resource and financial and independence from external sources, and ensuring stable rates of growth. The cumulative development of these components will contribute to an increase in the level of the country's security.

The synthetic nature of security leads to the fact that its level is significantly influenced by a large number of factors. Migration is one of the most significant factors affecting all aspects of security. The essence of the concept of migration in s is, by and large, unambiguous. Migration is the movement of fairly large groups of people from one region to another for a long period to create conditions for stable living, labor, and income [3, p.35].

The researchers are focusing on the issue of the migration processes' influence on the level of security of the country. Most authors note a high level of correlation between the intensity of migration and indicators of the state's security. As noted by N.P. Sheveleva [9, p.57], the diagnosis of the impact of labor migration on security should be carried out taking into account their division by status into donor and recipient countries. Regarding the change in the status of the state in migration relations, different effects of their influence on the level of security are formed. The so-called "quality" of the migration flow is of key importance for assessing the direction of the impact of migration on the security of the state. In general, the quality of the migration characterizes the volume of intellectual potential and the cost estimate of the labor force transferred to it. Taking into account the essence of this concept, it can be noted that the migration flow, within which the movement of highly educated labor resources capable of performing skilled labor tasks, can be considered as "qualitative". Since the existence of migration is an integral characteristic of the current world economy in the context of globalization, one of the key tasks of the Government is to create conditions for the constant "quality" growth of the incoming migration. The influx of skilled labor contributes to the growth of the security of the state, and the processes associated with the "brain drain", on the contrary, adversely affect its level. In general, the mirror image of the migration influence processes on the condition of donor and recipient countries' security.

Summarizing the materials of scientific publications [4, p.127], [5, p.37], [2, p.63] made it possible to identify the main directions of the influence of migration processes on the security of the state, which is displayed in Figure 1

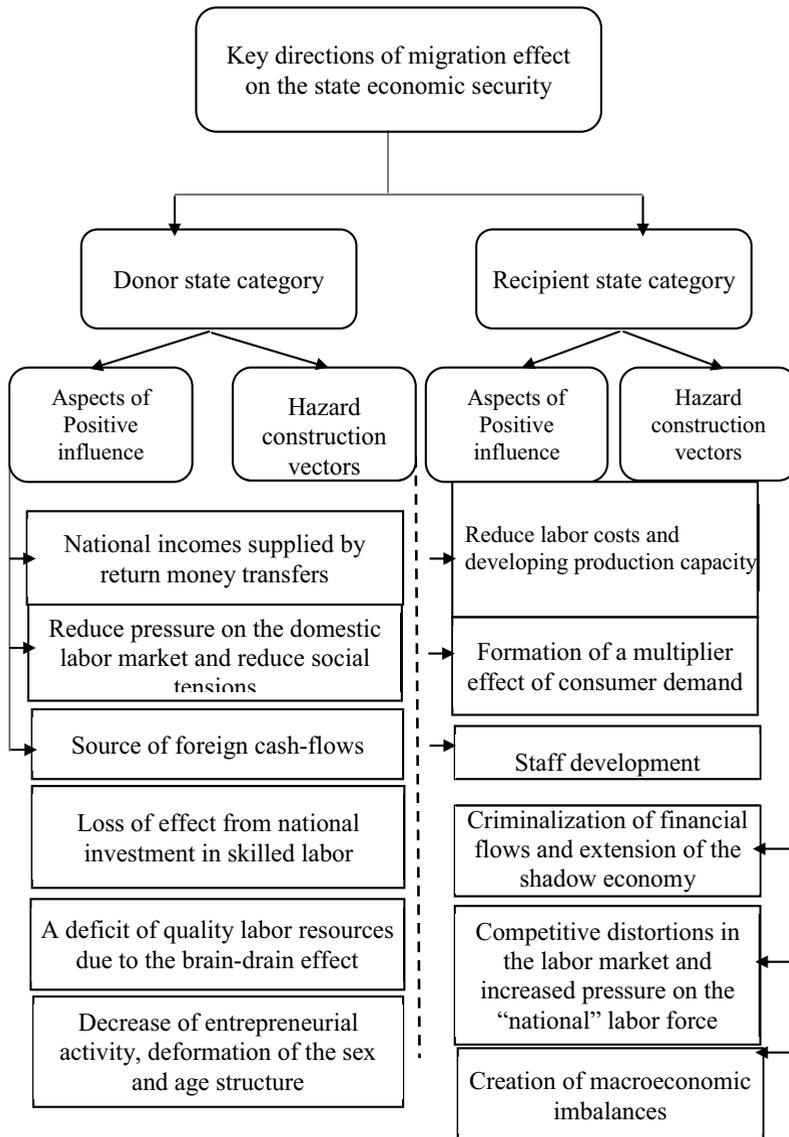


Fig. 1. The main directions of the impact of migration processes on the security of the state

The classification of aspects of the positive impact and vectors of the hazard construction of migration processes on the security of the state, summarized in Figure 1, whereas the correlation of donor and recipient countries, depicts the multiplicative nature of this impact. Moreover, according to N.A. Propel [8, p.137] the multiplicity of this impact is manifested not only in a wide range of effects but in the time horizon. The results of migration processes can have ripple consequences for the security of the country, both tactically and strategically.

Several basic tools are used in the scientific literature to determine the vectors of the impact of migration processes on security. Considering the author's position, Figure 2 shows the correlation matrix of the impact of migration processes on security.

Strength and Degree Assessments of impact on security						
C o r r e l a t i o n f a c t o r s	Labor	Increase the capacity of the labor market «+»; Decrease the labor potential «-»				
	Intellectual		Progressive staff development «+»; «Brain drain» «-»			
	Social-			Consumer effect «+»; Social tension rise «-»		
	Financial-				Capital inflow «+»; Criminalization of capital flow «-»	
	Demographic					Extended use of capacity «+»; Demographic disproportions «-»

Fig. 2. Correlation matrix of the migration processes impact on the security

The matrix presented in Figure 2 allows, based on an expert method, to identify the most significant aspects of the impact of migration processes on the security of the country, as well as to assess the degree of relevance and significance of this impact, according to the point-weighted approach.

The importance of studying the issues of the impact of migration processes on the security of the state requires the development of formalized methodological tools for its quantitative assessment. The solution to this problem is the justification of a set of indicators that allow performing assessment procedures grounded in a reliable statistical database.

Within the diagnostics of the processes under study, considering the author's position, it is obliged to develop several groups of indicators. Within each group of indicators, generalizing characteristics should be highlighted, allowing for evaluative comparisons. At the initial stage of the developed methodology, consider the indicators of the intensity of migration processes [4, p. 127]:

- Socially tolerable level:

$$Lst. = \frac{M_s}{P_t} * 10000, \quad (1)$$

here Lst - socially tolerable level;

M_s – recent migrants arrived in the state under the period studied;

P_t – national population on average under the period studied;

- Emigration rate:

$$Er = \frac{Me}{Pt} * 10000, \quad (2)$$

here Er – migration rate;

Me – the quantity of emigrated flows under the period studied;

Pt – national population on average under the period studied.

At the next stage of the study, it is necessary to determine the criterion that will be a comparable value for assessing the influence of the intensity of migration processes on the level of security of the state. To develop this criterion, two main qualifications must be used:

- age, which reflects the demographic losses of the country as a result of the existence of emigration flows, or vice versa, the demographic "acquisitions" of the state through immigration;

- intellectual, that is, the "quality" of the migration flow. The intellectual qualification should be built according to the level of education of the migrant and the qualifications of his/her labor activity [6, p.57].

To solve the first problem, the age index is adapted to the developed methodology, which is calculated according to the following formula:

$$Ia = \frac{ARA}{AMA}, \quad (3)$$

here Ia – age index of migration;

ARA – average retirement age within both a donor state and a recipient one to assess the emigration flows;

AMA – average migrant age under the period studied.

For a quantitative substantiation of the intellectual component of migration, it is proposed to use the indicator of the human development index. In our opinion, this indicator most capaciously reflects the generalized "value" of an individual, taking into account a wide range of indicators for the security of the state. If security is considered a complexly formed system, then the human development index embodies most of its elements. The calculation of the total value of the human development index includes the determination of several groups of its constituent indicators. The first in a series of these indicators is the life expectancy index, which determined by the formula given below:

$$Ii.e. = \frac{Long - LE_{min}}{LE_{max} - LE_{min}}, \quad (4)$$

here $Ii.e.$ – life expectancy index;

$Long$ – actual longevity;

LE_{min} – minimal life expectancy.

Within the framework of the presented calculation algorithm, the value of this indicator is used at the level of 25 years;

LE_{max} – maximal life expectancy.

Within the framework of the presented calculation algorithm, the value of this indicator is used at the level of 85 years.

The second indicator that is used to calculate the human development index is the index of the achieved level of education, which in turn is determined based on the product of education indices. The literacy index is determined by the following formula:

$$Ilit. = \frac{Lt_{act} - Lt_{min}}{Lt_{max} - Lt_{min}}, \quad (5)$$

here $Ilit.$ – literacy index;

Lt_{act} – a share of the literate population under 15 y.o.;

Ltmin – the minimum share of the literate population under the age of 15 is assumed to be 0%;

Ltmax – the maximum literacy rate of the population is 100%.

The enrollment index is determined using the following methodology:

$$Ienrlt. = \frac{EL_{act} - EL_{min}}{EL_{max} - EL_{min}}, \quad (6)$$

here Ienrlt. – enrollment index;

ELact (educational level) – the actual value of a share of the population enrolling at the age of 6 to 24 of the total number of citizens in this age group;

ELmin – the minimum value of the enrollment indicator is 0%;

ELmax – the maximum level of enrollment is measured by 100%.

Based on the presented indicators, the formula for calculating the index of the achieved level of education is as follows:

$$IEL = 2/3 * Iit. * 1/3 * Ienrlt., \quad (7)$$

here IEL – a calculated value of the index of attained educational level;

Ienrlt. – enrollment index;

Iit. – Literacy index.

The third component required to determine the human development index is the real GDP per capita index. The determination of the specified indicator based on the following methodology:

$$IGDP = \frac{GDP_{act} - GDP_{min}}{GDP_{max} - GDP_{min}}, \quad (8)$$

here IGDP. – real GDP per capita index;

GDPact – the actual value of the country's GDP per capita, based on purchasing power parity;

GDPmin – the minimum value of GDP per capita, based on purchasing power parity, shall be taken by \$ 100

GDPmax – the maximum value of the GDP value per capita, based on purchasing power parity, shall be taken by 40 thousand dollars.

The overall indicators presented form the complex system, which constructs a methodological basis for calculating the human development index:

$$Ihd = 1/3 * IGDP. + 1/3 * IEL + 1/3 * Ile., \quad (9)$$

here Ihd - the human development index;

IGDP. – real GDP per capita index;

IEL – the calculated value of the attained educational level index;

Ile. – life expectancy index.

At the final stage of assessing the impact of migration processes on the state security, it is necessary to generalize all the presented components into a single integral indicator, which is designated as the index of the migration impact effect on the state security. The calculation of the migration effect index will be carried out according to the following formula:

$$IME = \frac{F_{mi} * I_{ar} * I_{hd}}{F_{di} * I_{ar} * I_{hd}}, \quad (10)$$

где IME – index of the migration impact effect on the state security;

Ihd - human development index;

Iar – age-related index of migration processes;

Fmi. - migration intensity factor;

Fdi – departure intensity factor.

The value of this index for each state will have its subjective meaning. An important advantage of the migration impact effect index on security is its comparable nature, which allows making objective interstate comparisons based on the value of the given indicator. The absolute value of the migration effect index is also informative, which allows an answer to the positive or negative impact of migration processes on the security of the country. If the value of the migration effect index is more than one, then this fact indicates a positive influence of migration processes on security. If the value of the studied indicator is less than one, then there is a reverse trend. Practical adaptation of the developed methodology made it possible to determine the values of the migration effect index for individual states at the end of 2019, which are explicated in Figure 3

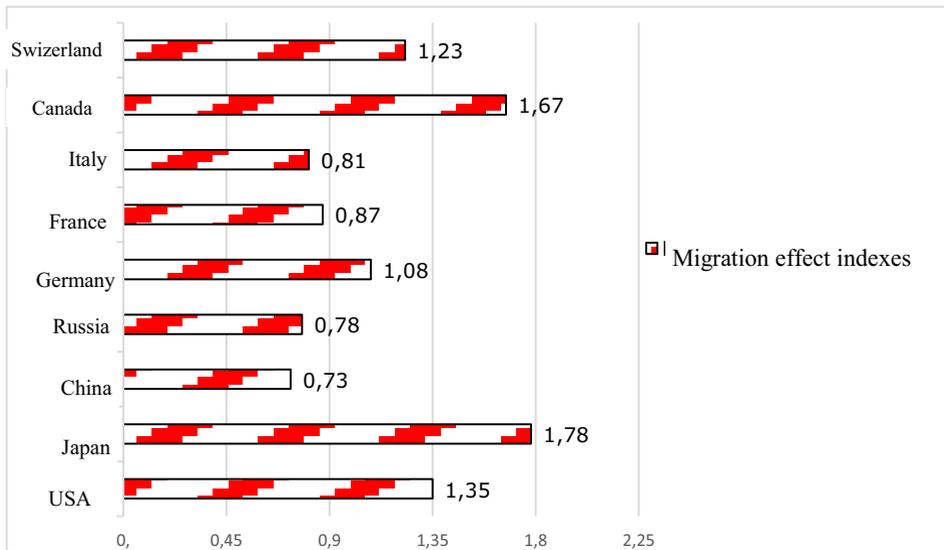


Fig.3. The value of the migration effect index at the end of 2019

* Source: calculated by the author based on these sources [10-13]

Based on the data presented in Figure 3, it can be concluded that even in some developed countries, the value of the migration effect index is less than one, which indicates the negative impact of migration processes on the level of security of the state. The size of the migration effect index in Russia is also less than 1, which is caused by two factors: on the one hand, the existence of a trend of "brain drain", and on the other hand, inflows of low-skilled labor from the neighboring countries.

Conclusions

The issues of methodological support for assessing the impact of migration processes on security have a high level of scientific and practical significance since they allow optimizing management mechanisms in this area. In the context of the dominance of globalization trends in the world economy at the modern stages of its development, achieving the necessary level of security at the state level is of particular importance. Solving the strategic task of ensuring national security requires taking into account and researching the maximum possible number of factors that influence it. One of the most pressing factors affecting the level of the country's security is migration. The existing conjuncture of the world economy makes it inevitable not only the presence but also the

intensification of migration processes. In this regard, the governments of practically all states need to develop and implement effective methods in the field of managing migration flows to ensure the required level of security. The use of an effective mechanism for managing the migration process requires the development of a formalized toolkit that makes it possible to assess the intensity of migration, its "quality" and directions of influence on some macro indicators, including security. The presented methodology for assessing the impact of migration processes on the security of the country based on the calculation of the integral index indicator. The index of the migration effect allows in dynamics to assess the effectiveness of management of migration processes in the country within a certain time-frame, which should become the main one for adjusting government decisions in this area of regulation. Based on the value of the migration effect index, it becomes possible to compare the quality of migration management between individual countries. The absolute value of the index of the migration effect is also of important informative value, which allows, taking into account the threshold criterion, to assess the degree of impact of migration processes on the security of the state. If the value of the presented index turns out to be more than one, we can talk about the positive influence of migration processes on security, the value of the index of the migration effect is less than one, gives reason to assert the presence of negative trends in this direction of the factor's impact. Thus, it can be concluded that there is a piece of complex information and the analytical effect that can be formed because of adopting the proposed methodology for assessing the impact of migration processes on the level of security of the country. The list of the disclosed advantages of the integral indicator has a high level of relevance for substantiating programs for managing migration flows within the framework of the national system.

References

1. A.U. Akhiyarov, A.I.Sharifullina The need to manage labor migration to ensure the economic security of Russia. *Innovative economics and modern management*, **4**, 29-34 (2016)
2. Van Min'yan', E.D. Platonova The role of labor migration in the formation and development of world, Russian and regional labor markets. *Bulletin of Eurasian Science*, **1**, 58-67 (2019)
3. E.I. Vinokurova Management of migration processes in Russia and the EU countries. *Management issues*, **7**, 33-41 (2016)
4. S. Kalyugina Depopulation and external migration as institutional risks of personnel security. *Journal of Institutional Studies*, **10** 4, 125-144 (2018)
5. K.V. Lysak Personnel security as a component of economic security. *Academic journalism*, **3**, 36-41 (2018)
6. V.V. Maslennikov Assessment of losses of the Russian economy from population migration to other countries. *Finance: theory and practice*, **22** 2 (104), 54-65 (2018)
7. T.N. Orlovskaya Study of the influence of integration processes and globalization processes on ensuring the economic security of Russia. *Petersburg Economic Journal*, **2**, 18-28 (2018)
8. N.A. Pruyel' Migration in modern Russia: scale, main directions and problems // *Regionology*, **28** 1 (110), 133-158 (2020)
9. N.P. Sheveleva, N.G. Savkina and D.A. Panarina The impact of international labor migration on the socio-economic development of the host country. *Society: sociology, psychology, pedagogy*, **27**, 87-92 (2018)

10. Gtmarket (2020) Available at: <https://gtmarket.ru>. (accessed: 3 March 2020)
11. Tadviser (2020) Available at <http://www.tadviser.ru> (accessed: 10 June 2020)
12. UNECE (2020) Available at : <https://www.unece.org> (accessed: 13 June 2020)
13. Official site of the UN. Available at: <https://www.un.org/ru/> (accessed 20 August 2020)

Video presentations, video conferences, seminar discourse or oral student presentation? - Are "traditional" academic genres changing or even disappearing?

Beatrix Kreß, Kathrin Schweiger

Universität Hildesheim, Universitätsplatz 1, 31141 Hildesheim, Germany

Abstract. The pandemic situation caused a transfer of teaching and learning into digital surroundings. This contribution shows adaptations and changes, caused by this, in different scientific communicative genres in the written and in the oral form, accompanied by shifts and modifications in the teaching and learning communication as a whole. Starting from the well-known scientific genres and forms of academic teaching and the targeted learning outcomes, coping strategies in the digital setting are described and reflected and certain consequences are pointed out. The advantages and disadvantages of this development can be discussed only after a longer-term observation, but some effects are indicated in this contribution.

1 Introduction

In academic communication, text genres as well as communicative genres have always served to process and to transmit knowledge. Central written and oral genres in German-language university discourse are above all the lecture, the academic lecture and, on the novice side, the student oral presentation – as well as the derivative, persecutive text genres such as the transcript/note taking, the excerpt, the thesis paper or the protocol/minutes.

The pandemic-related shift of university teaching into the virtual space also led to the introduction or increased use of so-called opencast formats, i.e. video recordings/presentation and to a focus on video conferences as a tool for synchronic teaching and learning (zoom and the like).

The questions are: what consequences will we meet through this change? Will this virtual mode of teaching lead to a change in the classic characteristics of the text genre "student oral presentation" and text genres like the i.g. transcripts/protocol/minutes. Will they disappear or does a new academic form of presentation emerge. What happens to the teaching and learning discourse, which is usually developed in the classroom? In other words, does virtual space – which is now replacing the classroom – give rise to new forms of communication? Just as the Internet resulted in "new" forms of communication and text genres like weblogs etc. The possibilities and usage of tools combined with text design still have to be tried out and learned as these genres (weblog, tweets) didn't exist before the Internet emerged. Familiar text genres – or fragments of them – are transferred to the virtual world. Over time, common practices emerge that lead to new text genres through imitation and repetition (cf. Wenz

2014). “New media first adopt conventions of old media before developing independent formats that exploit the respective media-specific potential” (Androutopoulos 2005:118).

2 Student Oral Presentation

Presentations in school or a seminar are primarily about reproducing or presenting researched facts and thoughts. Seminar papers therefore represent a genre of text that mediates between orality and written form. Presentations can be a powerful instrument of university teaching. They combine the functions of performance review, learning skills and practicing rhetorical and presentation skills. Guckelsberger (2009) specifies three central functions: a subject-related professionalization, a study-related qualification and a scientific and general professional qualification. 1) is a profound examination of scientific content, while 2) is the acquisition of basic research methods – not least, the (critical) processing of texts is practiced. The partial skills just mentioned are also useful for further professionalization under 3) – away from the university environment. Student presentations are virtually the defining characteristic of the seminar, which for its part has dominated university teaching since the 19th century, especially in historical and linguistic studies, theology, but also in the social sciences. The University of Tübingen, for example, describes the seminar as "a course in which teachers hold discussions with students and listen to presentations together," while the University of Hanover specifies that it is a "course under the direction of one or more lecturers, to which students must contribute through their own work (e.g. papers) (Dossier Unididaktik Universität Zürich p. 2).

Traditionally, scientific conference presentations are based on formulated manuscripts, which may be read out word for word. The problem with seminar presentations, however, is their reliance on scientific reference texts, which are intended for a specific audience with an understanding of the material and are generally harder for a listening audience to understand (cf. Grzeszakowska-Pawlikowska 2020). Guckesberger (2009) identifies a central, empirically proven procedure that she calls "patchwork procedure". It says the students take over text passages from the reference texts word for word, which they put together to form a new text, i.e. the text on which the presentation is based. Apart from the fact that such a procedure approaches plagiarism, it makes – as already mentioned above – listening difficult. We assume, however, with the video recording, the patchwork procedure could find increased application - due to the need of error avoidance. Thus, the orally recorded text will also increasingly approach the (conceptual) written form. Listed below is a comparison of the basic differences between student oral presentation and video presentation.

Table 1: Presentation /Screencast

Student oral presentation	Screencast
facial expressions and gestures support understanding	no gesture and facial expression support
syntax lexical error discontinuation of syntax	error prevention -> by re-recording
hastiness of the spoken word makes it impossible to listen again	watching again and again if one has not understood something correctly.
“feels more personal”	impersonal
space for intermediate questions and interaction -> spontaneous	no for intermediate questions and interaction
Pdf or Powerpoint easier for storage	screencasts rather impractical as a storage option

A mini survey in the course “Science Communication” in the winter semester 2020/2021 with 21 participants showed that – when it comes to creating a presentation themselves – half of the participants favor an oral presentation and the other half prefers a video recording.

From the recipient's perspective, as a listener, there is a preference for the screencast version: 59 percent prefer the “preserved” form of presentation.

3 The transcription/note taking

Taking notes, and with it the transcript, is one of the central text productions in the university. Taking notes has above all a memory-supporting function and serves as a basis for further processing, for example, for the protocol or for exam preparation. Steets (2003) speaks of a text genre without specification, because in fact it is not an "official" standardized text genre, there are no formalities for it. A successful transcript makes it possible to visualize the contents of the presentation. How comprehensive or how "objective" the transcript is depends to a large extent on the prior knowledge of the person taking notes.

Another mini survey in the course "Science Communication" in the winter semester 2020/2021 with 21 participants revealed that a small majority of participants take notes by hand (53 percent), while 47 percent type the notes right away on their devices. 67 percent of participants say they have taken fewer notes since the online teaching transition. One reason why there is now a tendency for less note-taking: If a device is used to play the presentation and to take notes at the same time, this makes it more difficult to take notes, i.e. if typing is preferred. Seminar participants further mentioned that lecturers now make use of the online “note taking” tool – which functions similarly to a whiteboard – and then make these available as screenshots. Otherwise, it can also be assumed that students photograph presentations in front of the screen.

4 Teaching and learning discourse

Questionnaires, surveys, informal discussions show: students and lecturers alike miss direct communication in digital learning, despite the fact that most universities established different videoconferencing technologies to allow synchronic and direct communicative exchange. However, due to technical reasons and out of social shyness in the new surrounding, communication as a dialogical exchange rarely develops.

Especially teachers expect from the direct exchange in the classroom, the teaching and learning discourse, certain outcomes. Coming from a taxonomy of skills and learning progression (cf. Anderson et al., 2001, p. 27), remember, understand, apply, analyze, evaluate and finally create, classroom discourse is expected to foster all of them. Knowledge is shared through discourse, understanding can be ensured by communication in question-answer-schemes, and by guided debates higher ordered analytical and critical competences should be facilitated. Linguists emphasize desirable side effects: Communication skills, the ability to use terminology and the scientific register appropriately, to express difficult processes and connections, but also to formulate an opinion or evaluation and be capable to argue it. An acceleration of knowledge and the creation of new insights is expected through that (cf. Lemke 1990: 87-124; Redder 2014, p. 32-33; Ehlich, 2014, p. 45-48). As the scientific debate – and hence the classroom discourse as a discussion in the scientific community “in miniature” – is shaped by controversy (in a productive way), students also acquire social skills: How is opposition stated without being too offensive, but still clear? How can a strong deviation be mitigated?

In order to save some of the advantages of classroom discourse, such as the linguistic examination of theoretical content in order to practice terms and scientific expression, and to promote the higher leveled learning outcomes, some aims are relocated into the written medium, which sounds somehow like contradiction to what is said before. However, the dialogue in video conferences seems to be so loaded from the technical and as well from the

psychological side, especially in larger groups, that only rather simple interactions, such as inquiries, questions and answers in chats etc., were feasible.

So, theoretical discussions, the deepened work with theoretical texts and the practical and analytical implementation were shifted in the written medium. The tasks for writing were then modelled in a way to preserve some of the discursive benefits. This was realized by impulses that allowed personal involvement. The importance of applicability of knowledge and learning outcomes and their embedding in everyday life is commonplace, and it became even more important through the remote situation in digital learning. The material and the task should also be able to encourage some kind of interior dialogue, a discourse with oneself, so different viewpoints and their argumentation were possible. Finally, however, it was also important that the challenge did not resemble well-known exam formats such as term papers or the like. The skills that are to be developed through these types of examinations are embedded to a sufficient extent in the current study programs and promote other competencies such as a critical review of the state of research, developing and arguing an own research focus or research question and writing a longer academic text in a structured and appropriate way. A duplication would have caused frustration.

In the new established written tasks, the focal point is different. It is on multi-perspectivity, argumentation and a “dialogue” of these different point of views with each other, so that not one thread is argued through a longer text, but the skills, promoted by a fruitful debate. Tasks that foster this have to start in rather precise and tangible setting. It should allow a question like “how I would feel in this situation?”, i.e. a quite egocentric point of view, which is followed by the need to change perspectives, as a transfer to an idiosyncratic starting point necessitates alterations and adjustments. This way, a somehow new genre is created that might be characterized as “somewhere in between personal journal/diary and scientific essay”.

5 Conclusion

Of course, it is premature and no representative surveys are yet available to confirm whether traditional text and discourse genres are changed, adapted, or no longer used at all. Herring (2013) speaks of adapted (reconfigured) communicative practices in web 2.0 (personal status updates, quoting/re-tweeting, blogging) and new phenomena (collaborative and especially multimodal practices of various kinds), which can be regarded as fields of investigation of pragmatics. Transferred to text genres, student presentations – mediated by the screencast – might be seen as a kind of adapted text genre. Some types of communication – e. g. the classroom dialogue – seem to be nontransferable, in any case one-to-one, so a media change might be useful. This leads to new text genres. So, many changes can be observed and documented and the situation after the pandemic is not the same also in this way. The advantages and disadvantages are not yet fully foreseeable and should also be discussed.

References

1. L. W. Anderson et al., *A taxonomy for learning, teaching and assessing: a revision of bloom's taxonomy of educational objectives*. New York: Longman (2001)
2. J. Androutopoulos, Online-Magazine & Co: Publizistische Nischenangebote im Internet. In: Siever, Torsten / Peter Schlobinski / Jens Runkehl (ed.) *Websprache.net*, 98-131. Berlin: de Gruyter (2005)
3. K. Ehlich, Argumentieren als sprachliche Ressource des diskursiven Lernens. In: Hornung, A., Carrobio, G., Sorrentino, D. *Diskursive und textuelle Strukturen in der*

- Hochschuldidaktik: Deutsch und Italienisch im Vergleich. Münster: Waxmann. 41 (2014)
4. Universität Zürich Arbeitsstelle für Hochschuldidaktik AfH *Dossier Unididaktik* 1/06 https://www.weiterbildung.uzh.ch/dam/jcr:00000000-1937-95a7-0000-000065e498ec/Du_Studentische_Referate.pdf. Retrieved 17.12.2020
 5. S. Guckelsberger, Mündliche Referate in der Universität: linguistische Einblicke, didaktische Ausblicke. In: Meer, Dorothee/ Lévy-Tödter (Hrsg.) *Hochschulkommunikation in der Diskussion*. Lang: Frankfurt a. M., 71 (2009)
 6. B. Grzeszakowska-Pawlikowska, Rhetorische Kompetenzen in der Fremdsprache Deutsch (DaF). Wirkung und Verständlichkeit polnischer Studentinnen in der interkulturellen Hochschulkommunikation [=Schriften zur Sprechwissenschaft und Phonetik 19.] Berlin: Frank&Timme (2020)
 7. S. C. Herring, Discourse in Web 2.0: Familiar, reconfigured, and emergent. In D. Tannen & A. M. Tester (Eds.), *Georgetown University Round Table on Languages and Linguistics 2011: Discourse 2.0: Language and new media* (pp. 1-25). Washington, DC: Georgetown University Press. Prepublication version: <http://ella.slis.indiana.edu/~herring/GURT.2011.prepub.pdf>. Retrieved 17.12.2020 (2013)
 8. J. L. Lemke, *Talking science: Language, learning, and values*. Norwood, NJ: Greenwood (1990)
 - A. Redder *Wissenschaftssprache – Bildungssprache – Lehr-Lerndiskurs*. In: Hornung, A., Carrobio, G., Sorrentino, D. *Diskursive und textuelle Strukturen in der Hochschuldidaktik: Deutsch und Italienisch im Vergleich*. Münster: Waxmann. 25 (2014)
 - A. Steets, Die Mitschrift als universitäre Textart – Schwieriger als gedacht, wichtiger als vermutet. In: Ehlich, K.; Steets, A. (ed.) *Wissenschaftlich schreiben – lehren und lernen*. de Gruyter: Berlin, New York, 51 (2003)
 9. K. Wenz, Entstehung neuer Textsorten im Internet - Überlegungen am Beispiel von Weblogs. Retrieved on 17.12.2020. <http://opus.bsz-bw.de/ubhi/volltexte/2014/241> (2014)