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UKRAINIAN ACADEMY OF ACMEOLOGY

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# HIGH SCHOOL TEACHER COMPETENCE IN CHANGE

according to the results of the project  
of the International Visegrad Fund  
“High School Teacher Competence in Change” No. 21720008

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The monograph is written according to the results of the project № 21720008 “High School Teacher Competence in Change” with the support of the International Visegrad Fund and the Ministry of Foreign Affairs of the Kingdom of the Netherlands. The work presents common and different approaches to system of education and higher education in Poland, Ukraine, Slovakia, and the Czech Republic. Authors specify a set of actions that contribute to improving the quality of high school teacher’s activities and development of their professional competencies.

The publication is intended for scientific and pedagogical workers who are interested in theoretical, methodological and practical issues of improving the professional activity of teachers, modernizing and ensuring the quality of higher education in conditions of its reformation.

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# INTRODUCTION

## *General research information*

The implementation of the international project #21720008 “Higher School Teacher Competence in Changes” has begun in 2018, with the assistance of the International Visegrad Fund and the Ministry of Foreign Affairs of the Netherlands.

**The grant recipient of the project:** Borys Grinchenko Kyiv University

**Project website:** <http://histecc.kubg.edu.ua>

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Four research groups were formed for the project implementation in each of the partner countries universities in 2017.

Each research group consists of five participants (scientists, experts in education, and representatives of non-governmental public organization). Among the 20 project implementers, four represent the non-governmental public organization *Ukrainian Academy of Acmeology*, which studies the process of achieving high professional development by a person. An international section of a non-governmental organization Ukrainian Academy of Acmeology on standardization of the results of professional activity of academic staff and improvement of their quality is created within the framework of the project with the participation of local communities and employers.

## *The context of the problem in individual countries*

In terms of educational reform and social transformation, the requirements for all educators' activities are changing, including academic staff. Changes in their professional competences are irreversible. There is a need for the conceptualization and harmonization of the academic staff professional work. Considering that the higher school teachers competencies are an important indicator of their activities, urgency of implementation the idea of the project № 21720008 “Higher School Teacher Competence in Change” under the auspices of the International Visegrad Fund and the Ministry of Foreign Affairs of the Netherlands is connected with the approaches unification to the competence sphere definition of academic staff in conditions of changes and development of diagnostic tools, recommendations for the results standardization of academic staff professional activity in partner countries.

Consequently, the purpose of the project № 21720008 “Higher School Teacher Competence in Change” is definition and diagnosis of academic staff complex competencies that meet the requirements of time, and further standardization of their activities in three Visegrad Group countries (Poland, Czech Republic, Slovakia) and Ukraine.

Definition and diagnosis of academic staff competencies are based on the international experience of the four participating countries. The main purpose of the project is achieved through comparative analysis of the nature and state of competencies development in the partner countries, further development of recommendations and standardization of the lecturer's performance.

The project result is to determine complex competencies that meet the quality criteria and correlating variable processes in society, as well as the methodology development, diagnostic research toolkit, proposals for improving the professional activities quality of higher school teachers.

## General methodology

The basis of the methodology of the problem study is the analysis of socio-economic contexts in which academic staff activity occurs as an executor of an important public mission. The paper considers the concept of A. King and B. Shnayder on the re-orientation of the part of the global tasks on the local level for “rapid response” on the complications that arise in civilization society (King & Shnayder, 1991). The conclusions of the Club of Rome meetings on the changes occurring in a globalized world are reviewed (Horbatenko, 2012).

The methodology is preceded by careful study of various documents, which identified and developed a competent idea in the European educational environment, namely:

— report “Learning: the Treasure Within”, prepared in 1996 by J. Delors, a representative of France, chairman of the International Commission on Education for the 21<sup>st</sup> Century within the Framework of UNESCO (Delors, J. (1996). *Learning: the Treasure Within*. Report to UNESCO of the International Commission on Education for the Twenty-First Century, Paris: UNESCO, 46 p.);

— report “Key Competencies in Europe”, represented in 1996 by W. Hutmacher, an expert of the European Council at a symposium on secondary education in Bern (Switzerland) (Hutmacher, W. (1997). *Key Competencies in Europe*. Report No. DECS/SE/SE/ec-(96)-43 of the Symposium “A Secondary Education for Europe Project”, Berne Switzerland, 27–30 March, 1996, Strasbourg: Council for Cultural Cooperation, 72 p.);

— project “Definition and Selection of Competences: theoretical and conceptual bases” under the auspices of the Organization for Economic Cooperation and Development during 1997–2003s in member countries;

— research “Key Competencies. A Developing Concept in General Compulsory Education”, that was held in 2002 by the European Commission together with the network *Eurydice* (EURYDICE (Network on Educating Systems and Policies in Europe). (Key Competencies. A Developing Concept in General Compulsory Education. Brussels: European Eurydice Unit, 2002, 182 p.);

— approval of the Recommendation of the European Parliament and the European Council for the European reference framework Key Competencies for Lifelong learning for the implementation in the member states in 2006

(EU (European Union)). (Key Competencies for Lifelong Learning. (2006). Recommendation of the European Parliament and to the Council of 18 December 2006 (2006/962/EC). *Official Journal of the European Union*, 2006, 30 December, p. I. 394/10–I. 394/18);

— approval of the Communication from the Commission to the European Parliament and the European Council “Improving Competencies for 21<sup>st</sup> Century: an Agenda for European Cooperation on Schools” in the 2008 (EU (European Union)). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. *Improving Competencies for the 21<sup>st</sup> Century: an Agenda for European Cooperation on Schools*. COM(2008) 425 final. (SEC(2008) 2177), Brussels: Commission of the European Communities, 2008, 12 p.);

— approval of the Communication from the Commission to the European Parliament and the European Council “New Skills for New Jobs” in 2008 (EU (European Union)). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions. *New Skills for New Jobs. Anticipating and Matching Labor Market and Skills needs*. COM(2008) 868 final (SEC(2008) 3058), Brussels: Commission of the European Communities, 2008, 15 p.);

— draft of the European Commission “Key Competences in Europe: Opening Doors for Lifelong Learners across the School Curriculum and Teacher Education” (2008–2009) (Jean Gordon, Gabor Halasz, Magdalena Krawczyk et. al. (2009). *Key Competences in Europe: Opening Doors for Lifelong Learners*. *CASE Network Report*, Warsaw: CASE — Center for Social and Economic Research, No. 87, 328 p.);

— approval of the European Council Conclusions on a Strategic Framework for European Cooperation in Education and Training “Education and Training 2020” in 2009 (Council Conclusions on a Strategic Framework for European Cooperation in Education and Training (“ET 2020”), 2941th Education, Youth and Culture Meeting, Brussels, 2009, 13 p.);

— approval of the Communication from the Commission to the European Parliament and the European Council “Rethinking Education: Investing in Skills for Better Socio-Economic Outcomes” in 2012 (EU (European Union)). Communication from the Commission

to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions. Rethinking Education: Investing in Skills for Better Socio-Economic Outcomes. COM (2012) 669 final {SWD (2012) 371–377}, Strasbourg: European Commission, 2012, 17 p.);

— research “Developing Key Competences at School in Europe: Challenges and Opportunities for Policy”, conducted by the European Commission together with the network *Eurydice* in 2012 (European Commission, EACEA, Eurydice. Developing Key Competences at School in Europe: Challenges and Opportunities for Policy. (2012). Luxembourg: Publications Office of the European Union, 68 p.);

— project by the European Commission of European Policy Network on Key Competences in School Education in 2012 (The European Policy Network on Key Competences in School Education — KeyCoNet, 2012–2014);

— approval of the KeyCoNet’s Conclusions and Recommendations for Strengthening Key Competence Development in Policy and Practice in 2014 (Looney, J., Michel, A. (2014). KeyCoNet’s Conclusions and Recommendations for Strengthening Key Competence Development in Policy and Practice. Final Report. Brussels: European Schoolnet, 22 p.);

— approval of Communication of the Commission to the European Parliament and to the European Council “Improving and Modernizing Education for All” in 2016 (EU (European Union). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions. Improving and Modernizing Education for All. COM (2016) 941 final. Brussels: Commission of the European Union, 9 p.).

Important for the definition of methodological foundations of the study were analytical materials on variable processes taking place in higher education systems of different European countries published by the European Commission “Modernization of Higher Education in Europe: Academic Staff 2017” (Crosier, Birch, Davydovskaia, Kocanova & Parveva, 2017). A special attention was paid to the expansion of informational space of higher education through the implementation of new ICT technologies, resource support; modernization and searching for common approaches to enhancing its quality. It also raises the problem of convergence of education systems of different countries;

determination of the competence space of higher school lecturer activity.

It should be noted that in pedagogical science there are different approaches to defining of competencies and their classification. The breadth of interpretations and variability of scientific approaches to understanding competencies can be traced in researches of Ukrainian and foreign scholars. For instance, I. Zimnyaya analyses key competencies as a result of education (Zimnyaya, 2009); G. Light studies the problem of the competences development of a personality in terms of continuous training (Light, 2003); V. Luhovii dwells on the terminological foundations of competency-based education (Luhovii, 2009); D. Glover and D. Miller studies the essence of teachers information competencies (Glover & Miller, 2006). G. Raven characterizes peculiarities of competence expression (Raven, 2002); O. Pometun justifies the essence and structure of competences, studies world experience (Parashchenko, Pometun, Savchenko, & Trubacheva, 2004); O. Savchenko researches key competencies as an innovative result of education (Savchenko, 2011); A. Khutorskoi analyses competence as a didactic concept (Khutorskoi, 2008) etc.

According to the definition of a famous European Educational Agency (Training Agency), competence is a description of what the person, working in the professional field, is able for. This is a description of the actions, behavior, and a result that the person is able to demonstrate (Walters, 1979, p. 5).

According to L. Holmes, professional competence is associated not only with certain actions required for “organizational component of the profession”, but is also compiled at the expense of the complex of personal, social and technical factors in a dynamic context of professional activity (Holmes, 2017). Professional competence is related to the personal style of a professional, whose activity based because of his own experience, values, moral qualities, etc. These features should be taken into account in the content of competencies.

It should be mentioned, science has no generally accepted approach to the classification of competences and their measurement. However, there are many scholar’s developments regarding approaches to their study and definition. For example, within the research framework organized by the European NGO “CORDIS” (Community Research and Development Information Service) professional competence is defined as the complex

formation of training blocks providing educational needs based on knowledge, scientific literacy, and the scientific thinking.

To determine the contents of academic staff competencies, it was important to analyse the results of the project DeSeCo, carried out by researchers in the context of the OECD. Researchers have generalized the results and conclusions of the three projects: the Cross-Curricular Competencies Project, IALS — International Adult Literacy Survey, and the Human Capital Project. Partially materials of the international program for the Adult Literacy and Lifeskills (ALL) and the International Association for the Evaluation of Educational Achievement (IEA) (Development of key competences in education: some lessons from international experience) were also examined. The content of education is reinterpreted and presented as a scope of competences. The main groups of competencies are defined as the ability to use the tools of interaction with the environment (language, knowledge, ICT, etc.); to interact with others in heterogeneous groups; to act independently.

The complexity of research of academic staff competencies is in the fact that their activity is multidimensional. It performs research, educational, design, organizational, evaluation, upbringing, innovative and other functions. Quite a lot of researchers explore the content of individual competencies according to above-mentioned functions. In our opinion, this approach is not only productive but also very challenging for the quantitative calculation and analysis. Therefore, the basis for the development of diagnostic tools to identify modern changes in academic staff competence were materials of the TUNING Project materials (Tuning Education Structures in Europe).

Therefore, according to the TUNING Project, the arguments of researchers regarding the structure of common competencies (instrumental, interpersonal, systemic) that a University graduate should possess, are taken as a foundation. This statement has given some guidance in order to conclude: “what the student will have, the lecturer must have”. Therefore, defined competence categories in the structure of general competence taken as a basis and reviewed in three professional dimensions of academic staff (academic, professional and pedagogical, social and personal), receive the name of the profiles

of professional activity. They can display its diversity and present certain competence plurality essence of this activity. The choice of these competence profiles of lecturers meets the following general criteria: universality as a mandatory requirement for all lecturers who are engaged in educational activities; compliance with the requirements of the development of the educational process of a modern higher educational institution; importance for all lecturers in different European universities; controlling and self-governing.

Each of the competence profiles consists of a set of lecturer’s competencies, which, on the one hand, are the key characteristics of a particular profile, and, on the other, could be seen as individual competences. The essential characteristics of competencies are reflected through different peculiarities of academic staff professional activity.

Each profile is presented through a set of competencies. Their content in accordance with specified numbers is in diagnostic tools (questionnaire in *Appendix*, p. 93).

**The professional and pedagogical profile** consists of the following competencies:

1. Innovation (№ 9, 13);
2. Professional self-development (№1, 5, 14);
3. Digital (№ 2, 3, 7);
4. Communicative and interactive (№ 4, 10);
5. Management (№ 6, 8, 11, 12).

**Innovation** is regarded as lecturer’s openness to changes at all levels of society, educational reforms, transformations taking place in consciousness and values of a modern person. It is the prerequisite for the development of necessary professional and pedagogical qualities: flexibility, responsiveness, adaptivity, consistency, creativity, and predictability.

**Professional self-improvement** of the academic staff is an integral part of its activity, the foundation of personal and professional enrichment, competency development potential, a way of implementing the basic values of European education “lifelong learning”;

**Digital competence** determines the ability of academic staff to use a variety of ICT in working with students and create new information resources. Digital competence triggers changes in a traditional model of the educational process and development of a multi-component educational model, creating interactive ICT environment.

**Communicative-interactive competence** of the academic staff largely depends on the ability to build interaction with students based on competency,

using various interactive techniques. The advantage of independent work in the structure of cognitive activity of students, the interactive methods of working with them, the departure from the traditional forms of educational process organization makes the interaction of the lecturer with students the dominant in his professional and pedagogical activities.

**Management competence** reflects a set of active actions of an academic staff within the educational process, associated with pedagogical means, human resources, certain processes, result assessment, etc. for the effectiveness of this process and ensuring its quality. An important component of lecturer's management activity is the ability to create an educational environment as a system of influences and conditions of personality formation, opportunities for development set in the social, spatial and material environment.

**Social and personal profile** consists of the following competencies:

1. Socio-cultural (№ 18, 19, 22, 25);
2. Professional and personal responsibility (№ 15, 20, 26);
3. Leadership (№ 17, 21, 24);
4. Civic (№ 16, 23).

**Socio-cultural competence.** Pedagogical activity is constantly in a situation of cultural and moral choice, dialogue of cultures, which requires the use of strict criteria for the knowledge, evaluation and use of certain behavioral patterns. This competence is characterized by a humanistic orientation of pedagogical activity, it affects the quality of modern education.

**Competence of professional-personal responsibility.** Management functions give the subjects of pedagogical management certain powers, an impact on the identity of the person who teaches, require him not only professional knowledge, but also moral upbringing, which determines the choice of methods and techniques of personal influence on the students. The ability not only to make professional solutions, but also to be responsible for their consequences in the learning process have a particular importance. This competence characterizes the management skills of pedagogical activity.

**Leadership competence** involves the ability of an academic staff to support students, communicate with them, and encourage development of self-government and youth initiatives. At the same time, nowadays a lecturer has to show qualities of a universal leader: fidelity to principles, initiative,

teamwork, self-confidence, the ability to show organizational, scientific and technical abilities, desire to raise the professional level and pedagogical skills. This competence is a modern European trend within professional activities and therefore requires improvement.

**Civic competence** is an integral part of an academic staff activity performing an important social mission in society. Due to it, higher school lecturer shows himself as a highly cultured person understanding his purpose in today's society, knowing his civil rights and responsibilities, current legislation. Understated indicators of this competence development is a testament of a transition period in the development of the country, changing of value orientations, overcoming crisis in all spheres of life.

**Academic profile** consists of the following competencies:

1. Research (№ 27, 29);
2. International cooperation (№ 30, 31, 33);
3. Scientific PR (№ 36, 37);
4. Methodological (№ 28, 32, 34);
5. Academic integrity (№ 35).

**Research competence** reflects the core of modern academic staff performance, which is not so much a broadcaster of ready knowledge to students, but an active person, able to acquire ways of obtaining new knowledge, creator of the science in a university environment. Consequently, he would benefit from his own research activities and experience in scientific research. Certain difficulties arise for lecturers in organizing research-based student training, participating in research groups, ability to carry out research projects.

**International cooperation** of academic staff is the prerequisite for the internationalization of science and education as one of the conditions of quality increase. The purpose of international cooperation in education and science is raising a competitive lecturer and graduate of a higher educational institution in the global labour market. The results of the international cooperation programmes, as a rule, are presented in international scientific papers that may be of interest to a wider scientific community and representatives of different countries. The necessity of publications of research results in scientific journals is the biggest problem for lecturers. Certain difficulties also arise in regards to the international community cooperation within the framework of conferences, seminars, participation in scientific exchanges and internships.

**Scientific PR** of an academic staff is associated with the popularization of personal scholar achievements, a continuous supplement of educational courses with new scientific ideas and achievements of modern science; creating your own scientific school on topical scientific problems, etc.

**Methodological competence.** It is doubtless the fact that pursue effective teaching can only lecturer, who has mastered the scientific methodology and research tools.

Another aspect of the activity of academic staff is **academic integrity**. Academic integrity should be the cornerstone of the foundation of life of any academic community and every lecturer of universities. For higher education through teaching and research on the basis of academic integrity strengthens intellectual dignity, tolerance to polyphony of scientific opinions, builds the harmony of moral and intellectual in every scientist.

The relevance of project researchers' approach concerning the definition of higher school teacher's competencies is consistent with recommendations of the Commission of the European Parliament and the Council of Europe on Council Recommendation on Key Competences for Lifelong Learning, approved in January 2018. The list includes literacy competence, language competence, mathematical competence and competence in Science, technology and engineering, digital competence, personal, social and learning competence, civic competence, entrepreneurship competence, cultural awareness and expression competence (European Commission, 2018).

To diagnose the quality components of academic staff competencies in each of the profiles, identify the relevant transformations that occur in lecturer's competence environment today, a diagnostic toolkit is developed. the basis for designing diagnostic are certain statements teachers had to evaluate. A guidance in the development of diagnostic tools is the ideas of foreign scientists L. Cohen, L. Manion, K. Morrison on using research methods in studying various phenomena and processes in education (Cohen, Manion, & Morrison, 2002; Paul van Geert, 2017).

The design of the questionnaire enables assessment as an ability of the subject to determine the value of ideas or statements. The respondents of the diagnostic toolkit are not only academic staff but also students, as their expectations on lecturer's performance are an important indicator of the quality of education. It also allows setting the appropriate correlation links between diagnostic results in two groups. Four-dimension scale of competence assessment is developed. It could record the dominance of choice and respondents' evaluation of statements: from the approving "Yes" to the denying "No".

### **Information about the general research and statistical tools**

The study involved 993 respondents: 328 lecturers and 665 students.

Table 1

GENERAL SAMPLE INFORMATION (LECTURERS)

	Total	Men	Women	Age		
				25-40	41-55	56
Ukraine	125	17 (13,6 %)	108 (86,4 %)	58 (46,4 %)	45 (36,0 %)	22 (17,6 %)
Poland	63	15 (23,8 %)	48 (76,2 %)	22 (34,9 %)	31 (49,2 %)	10 (15,9 %)
Czech Republic	73	31 (42,5 %)	42 (57,5 %)	23 (31,5 %)	34 (46,6 %)	16 (21,9 %)
Slovakia	67	18 (26,9 %)	49 (73,1 %)	24 (35,8 %)	21 (31,3 %)	22 (32,9 %)

	Experience			Degree	
	Up to 10	11-20	21	Have	No
Ukraine	44 (35,2 %)	35 (28,0 %)	46 (36,8 %)	66 (52,8 %)	59 (47,2 %)
Poland	19 (30,2 %)	23 (36,5 %)	21 (33,3 %)	49 (77,8 %)	14 (22,2 %)
Czech Republic	25 (34,2 %)	22 (30,1 %)	26 (35,7 %)	51 (69,9 %)	22 (30,1 %)
Slovakia	17 (25,4 %)	21 (31,3 %)	29 (43,3 %)	38 (56,7 %)	29 (43,3 %)

Table 2

## GENERAL INFORMATION (STUDENTS)

Country	Total
Ukraine	269
Poland	164
Czech Republic	150
Slovakia	82

According to the Project implementation plan in 2018, a survey for academic staff and students conducted using specially designed Google-forms.

The survey proposes 37 lecturer's characteristics. Each statement is evaluated on a 4-point scale: "yes", "rather yes than no", "rather no than yes", "no", and it was possible to choose only one of these answers.

A number of filters taken into account in the process of developing Google-forms for evaluating the results of the study (gender, age, experience, degree).

Unified statistical procedures are used, for which purpose special functions are developed in the program "Microsoft Excel" for analyzing the data obtained.

Well-known statistical criteria are used for understanding the real attitude of lecturers and students regarding research problem: Pearson  $\chi^2$  and Fischer  $\phi^*$  (Ukrainian sample), Pearson  $\chi^2$ , Mann-Whitney (Slovak sample).

Discourse of the common methodological approaches to the definition of the higher school teachers competencies in the changes and development of diagnostic tools for their evaluation, using valid statistical methods allowed each of the international research teams to conduct their research and get results, which are the basis for comparative analysis and production recommendations system.

# DEVELOPMENT OF ACADEMIC STAFF COMPETENCES IN UKRAINE

Transformation processes in the education system of Ukraine are aimed at creating a functional construct, able to ensure the quality of education that meets the requirements of socio-cultural realities, European and international standards, and, consequently, contributes to the development of the state in all dimensions. The leading place in this system belongs to higher education, which ensures the readiness of the economically active population to work meeting the requirements of the post-industrial information society. It is generally recognized that improving the quality of human capital through increased access to higher education can be a determining factor in the economic growth of a country and improving the quality of social life as a whole.

In the “Encyclopedia of Education” the concept of “higher education” is characterized as a relatively new, which means the top stage of long-term formation of a professional. Today, there is a unanimous perception of higher education as “the process and result of combining education and professional training”. Problems, solved by higher education are complex and multidimensional. In particular, it comprises “on the basis of familiarization with the latest

achievements in science and practice, mastering such a large number of systematic knowledge, skills and professional activities, it provides a person with higher education, the ability to independently and responsibly perform his functions, creatively use and develop achievements of science, technology and culture”, “contains the development of the student’s personality, his intellectual and moral qualities”, “needs and skills of further self-improvement and continuous education” (Encyclopedia of Education, p. 99). The Law of Ukraine “On Higher Education” (2014) regards higher education as “a set of systematic knowledge, skills and practical skills, ways of thinking, professional, ideological and civic qualities, moral and ethical values, other competencies obtained in higher education (scientific institution) in the relevant field of knowledge on certain qualifications at the levels of higher education, which is higher in complexity than the level of complete secondary education” [195].

Therefore, in the system of higher education, which is a special sphere of social relations of all participants of the educational process, the training of future specialists is carried out, their diverse competencies necessary for successful functioning in the professional, social and personal life are formed and developed.

HIGHER EDUCATION INSTITUTIONS IN UKRAINE 2010–2017

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Number of establishments (total) including the forms of property	813	805	785	767	664	659	657	661
<i>state and communal</i>	637	633	619	609	520	525	527	533
<i>private</i>	176	172	166	158	144	134	130	128

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Number of students (total), units including the forms of training	2418111	2246363	2106174	1992882	1689226	1605270	1586754	1538565
<i>full-time</i>	1509049	1403249	1352150	1309592	1153293	1141291	1140100	1119061
<i>evening</i>	8887	7665	6586	5555	4797	3822	3312	3225
<i>correspondence</i>	900175	835449	747438	677735	531136	460157	443342	416279
Number of students per 10 thousand of population	557	519	488	463	393	375	372	363

Source: Higher Education in Ukraine in 2017. Statistical Bulletin // State statistics service of Ukraine [Electronic resource]. K., 2018. Mode of access: [http://www.ukrstat.gov.ua/druk/publicat/kat\\_u/publosvita\\_u.htm](http://www.ukrstat.gov.ua/druk/publicat/kat_u/publosvita_u.htm) (accessed 09.11.2018).

Since its independence, Ukraine has formed an extensive system of higher education institutions. Prior to the adoption of the Law of Ukraine "On Higher Education" (2014), colleges, technical schools, vocational schools, institutes, academies, and universities representing different levels of higher education belonged to higher education institutions. In 1991–2016s, the network of higher education institutions in Ukraine underwent significant changes. If in 1991/92 a. y., there were 910 institutions of higher education at different levels, in 2010/11 a. y. — 813, among them 637 — public and municipal, 176 — private. Over the past eight years, there has been a clear downward trend in the number of higher educational institutions, the total number of students and the number of students per 10,000 population, which indicates the processes of optimization of the network, which

have diverse causes. For instance, closing, merging, associating universities, a decline in birthrate in Ukraine. All these processes of population reproduction in our country since the 90s of the 21<sup>st</sup> century have become a trend.

At the beginning of 2017–2018 academic year (the time of the pilot study) in Ukraine there are 661 institutions of higher education, including 289 universities, institutes and academies. The number of students in all institutions of higher education is about 1 million 539 thousand. For every 10 thousand people in Ukraine, there are 363 applicants for higher education, which is commensurate with European indicators. The educational process in higher education institutions is provided by 118 thousand teachers. In 2017, 421 thousand specialists graduated higher education institutions in Ukraine, which is 34 thousand more than in 2016.

#### HIGHER EDUCATION INSTITUTIONS — UNIVERSITIES, INSTITUTES, ACADEMIES

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Number of establishments (total), units including the forms of property	330	326	316	309	277	288	287	289
<i>state and municipal</i>	231	227	220	218	197	208	209	212
<i>private</i>	99	99	96	91	80	80	78	77
Number of students (total), people	2066667	1899138	1770311	1673287	1437955	1375160	1369432	1329964
Number of persons accepted for training (total)	381362	307316	331164	337420	291647	259904	253217	264448
The amount graduated from HEIs (total)	528875	515032	505420	471717	405392	374028	318681	359901
Number of students per 10 thousand of population	476	439	410	389	335	322	321	314

Source: Higher Education in Ukraine in 2017. Statistical Bulletin // State statistics service of Ukraine [Electronic resource]. K., 2018. Mode of access: [http://www.ukrstat.gov.ua/druk/publicat/kat\\_u/publosvita\\_u.htm](http://www.ukrstat.gov.ua/druk/publicat/kat_u/publosvita_u.htm) (accessed 09.11.2018).

It should be noted that today the system of higher education in Ukraine operates in the context of changes of the legislative field of activity; optimization of the network of educational institutions; creation of various mechanisms for the formation of a better staff in connection with the tightening of requirements for applicants and scientific and pedagogical workers through mechanisms of external evaluation; search for optimal ways to improve its quality.

Modern requirements for the results of the activities of educational institutions on different levels and types are rooted in the program documents of our state — “Strategy of Innovative Development of Ukraine for 2010–2020 in the Context of Globalization Challenges” (2009), “National Strategy of Ukrainian Education Development up to 2021” (2013); “Strategy of Sustainable Development “Ukraine — 2020” (2015), the National report “Sustainable Development Goals. Ukraine” (2017); regulatory and legal basis of the organization of the educational activities — laws of Ukraine “On Higher Education” (2014); “On Education” (2017), Decree of the Cabinet of Ministers of Ukraine “On Approval of the National Qualifications Framework” (2011), “On Approval of the List of Branches of Knowledge and Specialties for Training of Applicants for Higher Education” (2015). These normative legal documents define the main directions, priorities, tasks, and mechanisms of implementation of the state policy in the field of education, staff and social policy form the basis for the management and financing of the education system, determine its structure and content.

The Law of Ukraine “On Higher Education” (2014) is aimed at the implementation of the key principles and tools of the Bologna process, the creation of an attractive and competitive higher education area of the European model. It began an important stage of reforming the domestic higher education, becoming the basis for the modernization of the higher education system in different aspects: levels, degrees, the list of specializations in training of applicants for higher education, competencies, content, organization and quality of education. The main ideas of the Law of Ukraine “On Higher Education” (2014), which are the basis in determining the direction of modernization of the system and content of higher education related to: legislative implementation of the National Qualifications Framework; bringing the levels of education in accordance with the qualification levels (Section III, Article 5); organization

of applicants training for higher education at all levels and degrees in specialties (Section IV, Article 11); implementation of the standard of higher education as a normative document defining the requirements for the competencies of the future specialist and the normative content of education (Section III, Article 10); clearly defining the powers of the Central Executive body in the field of education (Section III, Article 13); providing a coherent system of quality assurance of higher education (Section V, Article 16), the creation of the National Agency for quality assurance of higher education (Section V, Article 17, 18, Final regulations).

Potential directions of higher education development are justified by analytical studies and actively discussed by theory scholars.

The search for effective ways of formation of specific training of future specialists, which in the future will provide effective professional activity on the basis of knowledge, skills, requires reference to the competence approach (Eng. competency approach), involving “training focused on output rather than input; considering mainly the ability to perform practical tasks, also taking into account knowledge; training in a work environment (at least part of the training takes place at the workplace in a work environment)” (Nychkalo, N. (2002). State Standards of Professional Education: theory and methodology, 98–99). The competency approach assumes the obligatory activity of subjects of education in the process of obtaining effective knowledge. The activity of subjects of education in the educational environment of higher educational institutions will be determined by the conditions and incentives created in the environment, the subject context of learning and extracurricular activities. Therefore, since 2011, Ukraine has introduced the National Qualifications Framework — a legal document that reveals a systematic and structured description of the competencies of the qualification levels.

It should be noted that the English word “competence” in the Ukrainian scientific discourse in the 2000s is used in two lexical meanings — “competency” and “competence”. These notions have different meaning, content and hierarchical subordination (Rashkevych, Yu. (2014). The Bologna Process and the New Paradigm of Higher Education). Competency is understood as a range of issues a person should be aware of, it is an objective category, a socially recognized level of knowledge, skills, relations in a certain sphere of human activity. It is alienated from the person as a predetermined

social norm (from the speech by O. Savchenko at the meeting of NAES of Ukraine). According to N. Bibik, the result of the competency acquisition is a competence, which, unlike competency, involves a personal characteristic, attitude to the subject of activity (Bibik, N. (2008). Encyclopedia of Education). According to O. Savchenko, “long-term scientific discussions allowed scholars to identify four basic characteristics of the concept of “competence””. They are the following: the use of competence always occurs in a certain context; competence is always the result, it characterizes what an individual can do, and does not describe the process during which he acquired this competence; to measure the ability of an individual to use competence, we need clearly defined and approved standards; competence is a measure of what an individual can do at a specific time” (Savchenko, O. (2011). Key Competencies — Innovative Result of School Education, p. 5). In 2015 S. Sysoyeva summarized various approaches to the interpretation of concepts “competency” and “competence”. Thus, competency, according to the author, is a certain norm in relation to continuing education, which is set by educational standards and is used to form requirements for learning outcomes. Competence is an integrated personal quality of a person (his capital), which formation starts at the stage of training, and it is finally formed and developed in the process of practical activity, providing a competent approach to solving professional problems. Competence is an evaluation characteristic of a person. Personal competence is a personal capital and the result of training in various forms of formal, informal and lifelong education. Competence approach is an approach aimed at the formation of competence of a person (S. Sysoyeva, S. (2015). New Law of Ukraine “On Higher Education”: discussion aspects of the scientific thesaurus).

According to the new version of the Law of Ukraine “On Higher Education” (2014), competence is defined as a dynamic combination of knowledge, skills and practical skills, ways of thinking, professional, ideological and civic qualities, moral and ethical values, which determine the ability of a person to carry out professional and further educational activities successfully. It is the result of training at a certain level of higher education.

It is important for a professional competence to cover “specified skills (the requirement to perform certain individual tasks); the use of knowledge and skills in the workplace at the level of established requirements (standards) for this

work; the ability to responsibly perform duties and achieve planned results; the ability to find solutions in unusual situations; the ability to apply knowledge and skills in new conditions of working activities” (Nychkalo, N. (2002). State Standards of Professional Education: Theory and Methodology: monograph, p. 96–97). Therefore, professional competence “is a combination of theoretical and practical training of the future specialist for future professional activity and the main indicator of his developed professional thinking”, it takes into account various aspects of the specialist — intellectual (cognitive), professional (special) and personal (subjective), which complement each other, contribute to their complex and systemic manifestations, if necessary, can compensate for the lack of development of certain indicators of a competence” (Yagupov, V. (2007). Competence-based Approach to Training of Specialists in Higher Education, pp. 6–7).

Therefore, given the lack of a unified approach to the interpretation of the concept of “competence” in the modern Ukrainian terminological discourse, the need for its identification within educational systems of countries-participants of the study, it was important to determine the structure of the concept of “professional competence of a lecturer of higher school” as an indicator of professional activity in three dimensions: academic, professional and pedagogical, social and personal.

### *Description of a national analysis*

125 lecturers and 269 students of Borys Grinchenko Kyiv University participated in the survey. It is a representative sample in accordance with the parent population. The indicated sample is able to capture the state of competencies development of scientific and pedagogical staff, their main problems and disabilities as subjects and objects of the educational process. Respondents were asked to assess 37 characteristics according to the degree of dominance. It should be mentioned, lecturers involved in the survey, made a self-assessment of their professional activity, and students answering questions, defined their own expectations regarding high school lecturer’s activity. Virtually, they developed “the perfect model” of a modern university lecturer.

Moreover, in the process of creating Google forms, a range of evaluation filters of research results were applied. So, for lecturers the following filters were involved: gender, age (25–40 years,

41–55 years, 56–70 years, over 71), experience in teaching (up to 10 years, 11 to 20 years, more than 20 years), scientific degree (PhD, Candidate of Sciences, without a scientific degree). For students, the following filters were involved: gender and year of studying. Introducing these filters in the context of research is due to a hypothetical assumption of a research group, that certain personal and professional features represented in filters affect their responses and choices. However, this scientific article is not intended for a detailed description of higher school lecturer's competencies progress but focuses on highlighting general trends of their development.

Developed filters allowed to show that the vast majority of respondents are women (86,4 % of the total number of respondents), men are much less — 13,6 % (see *Figure 1*).

Distribution of lecturers by age is interesting:

- 25–40 years — 46,4 %;
- 41–55 years — 36,0 %;
- 56–70 years — 16,8 %;
- above 71 years — 0,8 % (see *Figure 2*).

Regarding the length of teaching experience, we received the following data:

- up to 10 years — 34,4 %;
- 11–20 years — 27,2 %;
- over 20 years — 38,4 % (see *Figure 3*).

The last filter that is applied to a sample of lecturers is a scientific degree. We recorded the following data:

- Doctors of Science — 10,4 %;
- Candidates of Science — 42,4 %;
- lecturers without a degree — 47,2 % (see *Figure 4*).

The survey of students found that the vast majority of respondents are women (91,1 %), men consist 8,9 % (see *Figure 5*).

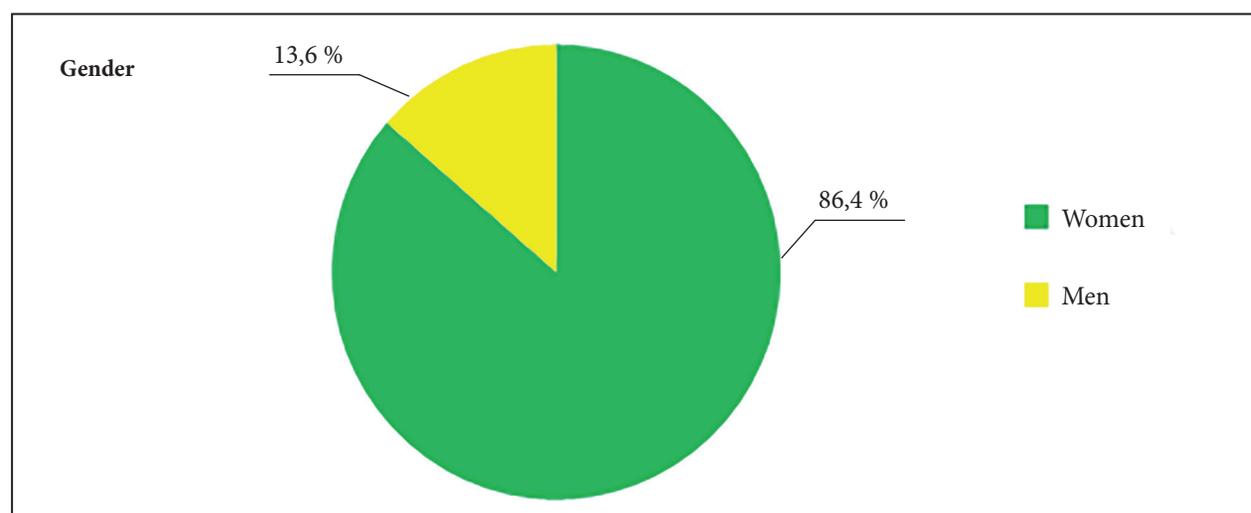


Figure 1: Gender distribution of lecturers

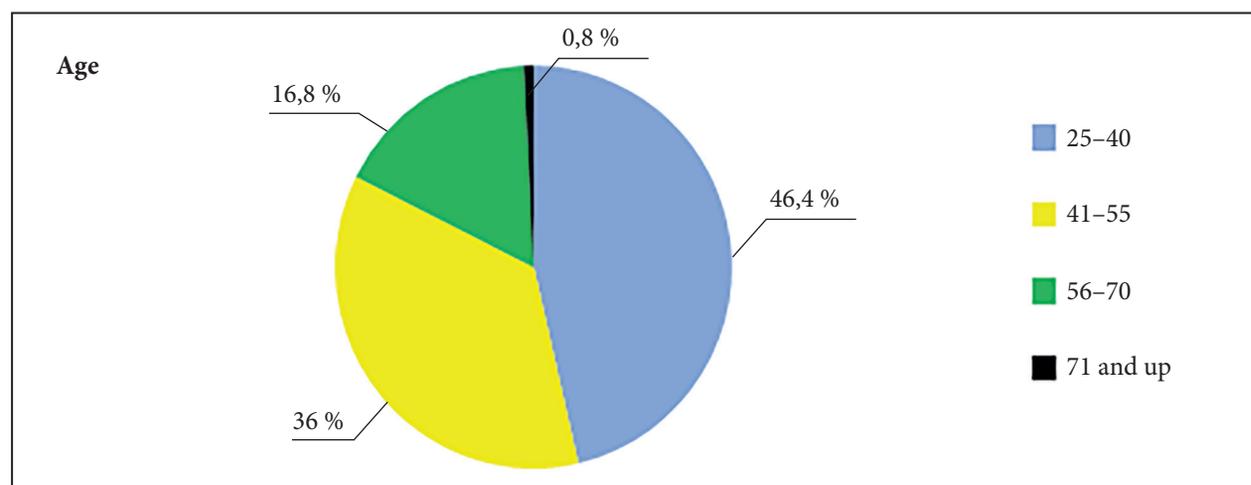


Figure 2: Distribution of lecturers by age

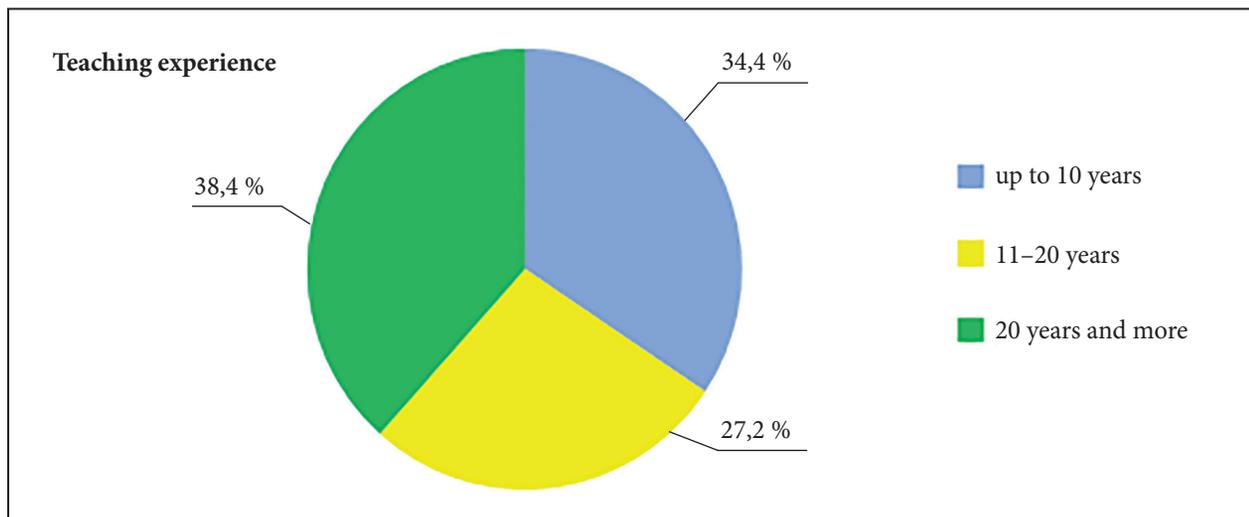


Figure 3: Distribution of lecturers by teaching experience

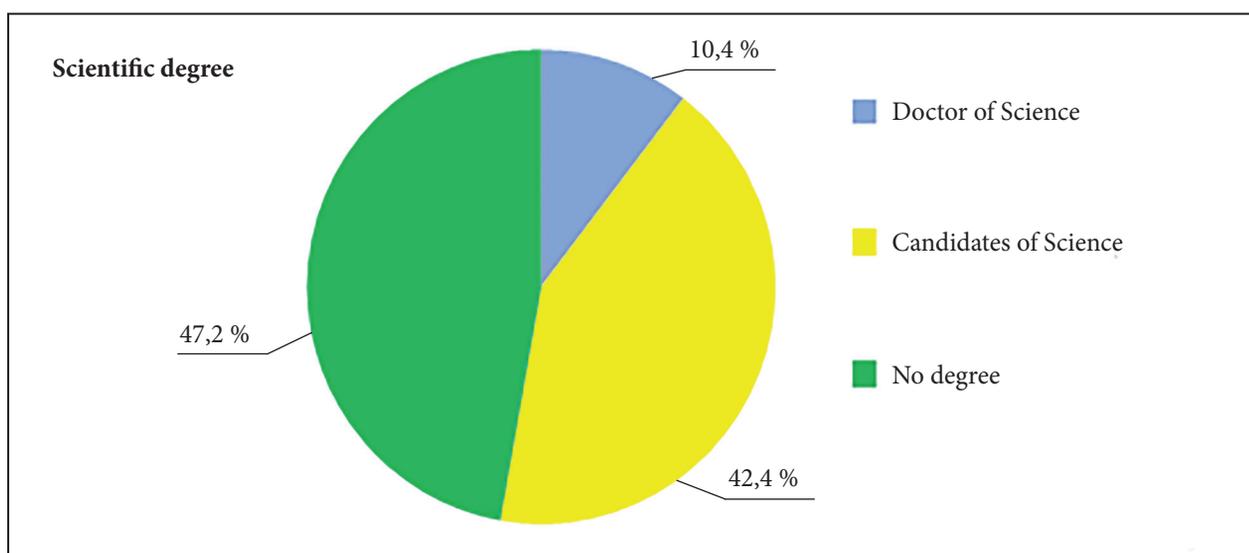


Figure 4: Distribution of lecturers by scientific degree

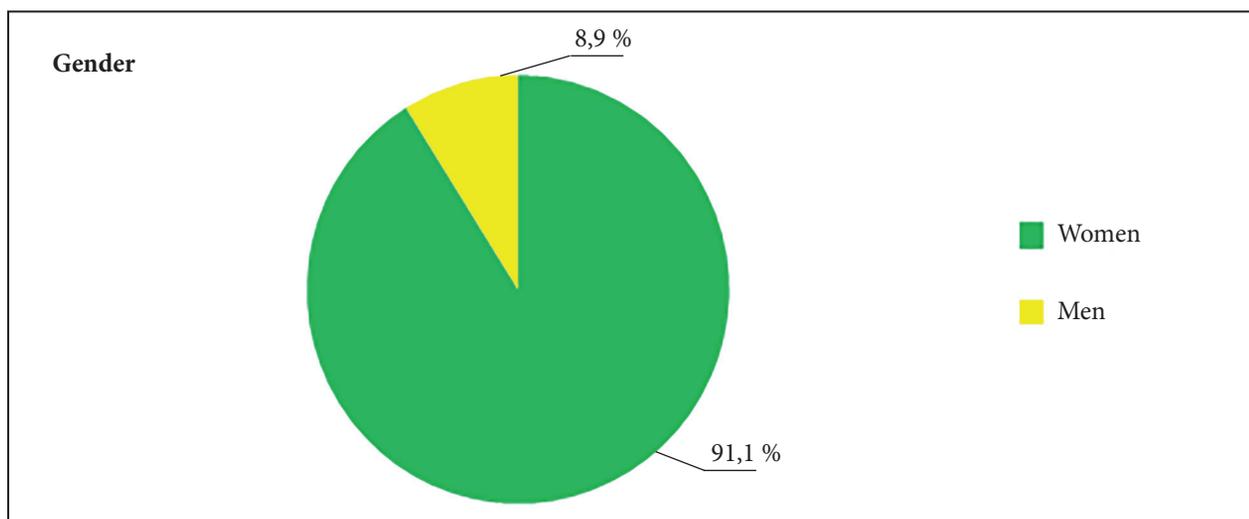


Figure 5: Gender distribution of students

We will also present the distribution of students by the years of study:

- 1 year students — 15,3 %;
- 2 year students — 4,5 %;
- 3 year students — 29,4 %;
- 4 year students — 25,7 %;

- 5 year students — 11,9 %;
- 6 year students — 13,2 % (see Figure 6).

A synthesis of the results and their analysis led to a number of important results. Thus, the professional and pedagogical competence profile of lecturers is not unified in its content (see Figure 7).

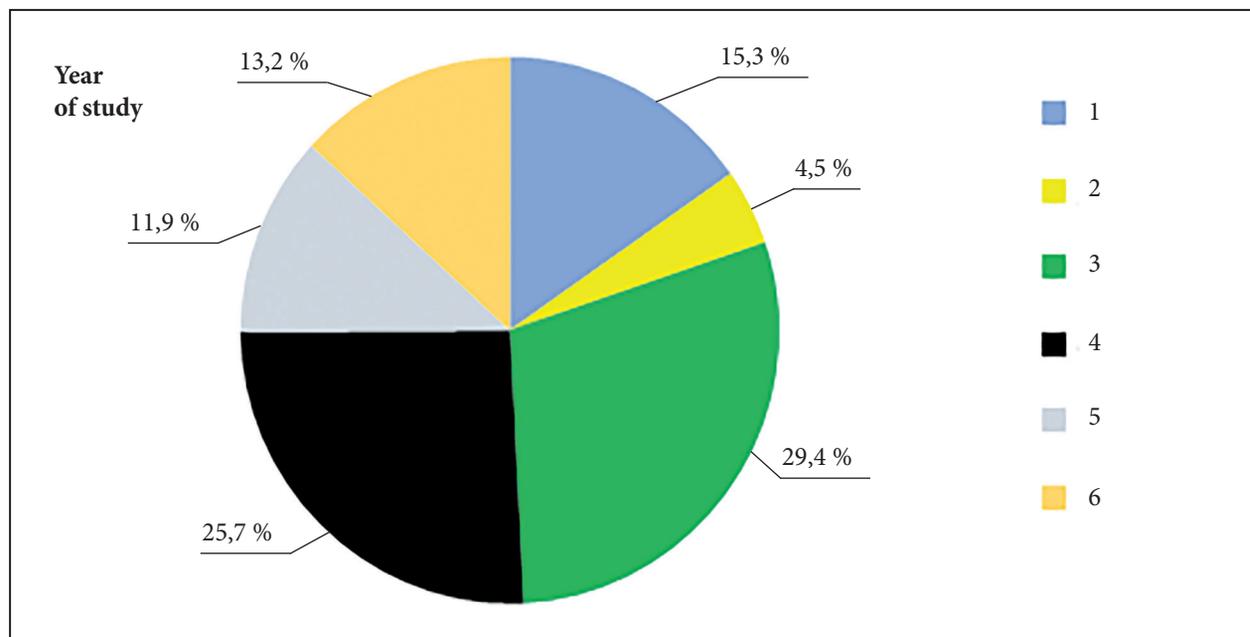


Figure 6: Distribution of students by year of study

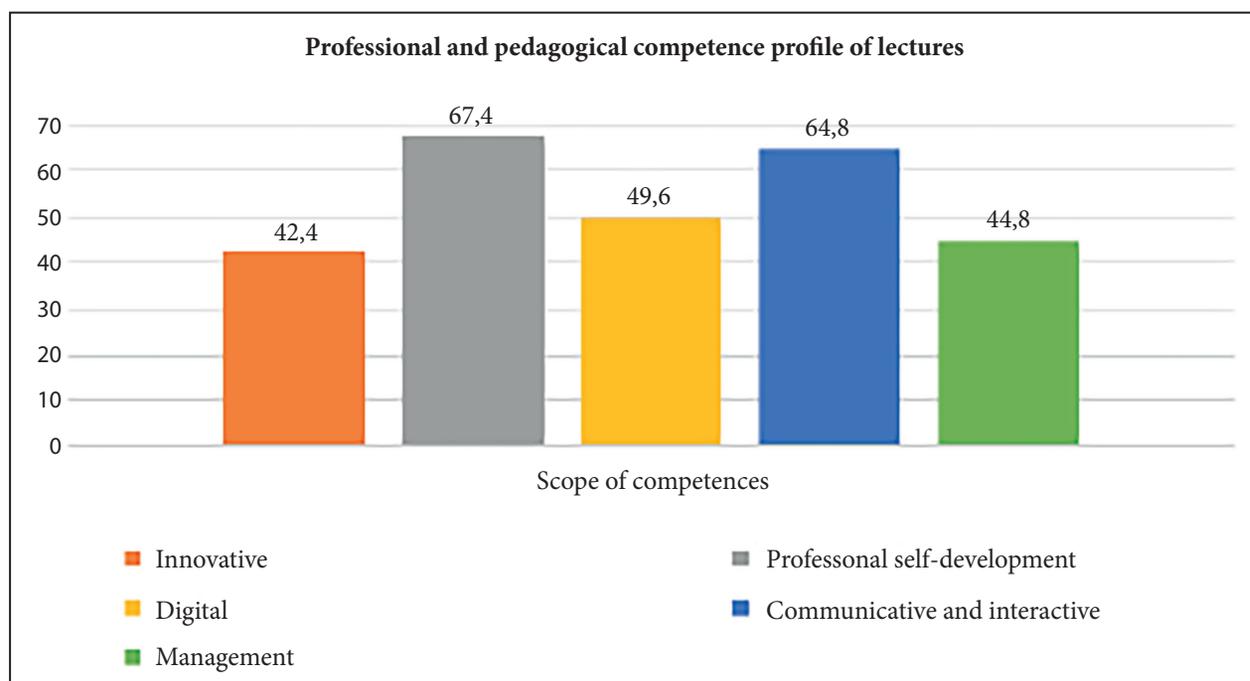


Figure 7: Dynamics of lecturer’s competencies development in professional and pedagogical profile

According to the results of the study, the openness of the lecturer to changes in society at all levels of its functioning, educational reforms, transformations that occur in the consciousness and values of a modern person is a prerequisite for the development of his necessary professional and pedagogical qualities: flexibility, efficiency, adaptability, stability, creativity and ability to prognosticate. This is an essential feature of an innovative competence.

Professional self-improvement of a lecturer as one of his fundamental competences is a rather contradictory process: from subjective assessment of his/her own level of self-improvement, to optimization of the educational process on this basis and the degree of satisfaction with the results of his/her activities. The last component is quite multifactorial, which includes the status of the lecturer, the level of his moral and material satisfaction, authority in the team, etc. However, the essential trend is variable processes in education, which make the teaching profession dynamic, cumulative in content and innovative in methods.

A modern lecturer cannot always quickly perceive these peculiarities, as well as take into account new challenges. This is one of the reasons for the decrease in the degree of satisfaction with the results of their own professional activities and the distribution by age and academic degrees of lecturers. However, making this conclusion, it is impossible to ignore the lack of social optimism among lecturers, low social status in society, uncertainty in the future, lack of social guarantees etc.

Digital competence of a lecturer involves using ICT technologies in the process of professional training and the creation of new information resources. Their availability is changing the traditional model of the educational process, creating conditions for the development of multi-component educational model, interactive virtual environment, reshaping the interaction technology of its subjects. Considering the above-mentioned, the competence of a high school lecturer in working with information on the basis of critical thinking, using ICT and creation of new information resources requires further development. The essence of this process is to expand lecturer's understanding of the informational environment, to familiarize them with new informational trends and opportunities for its use. ICT competence should be improved for lecturers between the ages of 41 and 55, as well as for those without a degree.

Communicative and interactive competence of the lecturer comprising effective interaction with students is the fundamental basis of the effectiveness of the educational process. If the majority of lecturers shows the need for various means of communication with students in the educational process, the results of the survey show a lack of understanding of the importance of interactive interaction by lecturers. The Candidates of Sciences are most ready for it. Among the various ways of interaction, some complications are noted by lecturers in an organization and carrying out project activities, which is both the most promising component of the educational process, a condition for creative self-development and self-realization of the individual.

The competence "managing the educational process" reflects the set of activities of a lecturer within the educational process, which is associated with pedagogical tools, human resources, certain processes, evaluation of results, etc. for the effectiveness of this process and ensuring its quality. An important component of lecturer's management activity is the ability to create an educational environment as a system of influences and conditions for the formation of personality, possibilities of its development, which are in the social, spatial and subject environment.

At the level of lecturer's activity, it means stimulation of intellectual and creative research, modernization of forms and methods of professional training of the future specialist, creation of partnerships and so on. The analysis of results of lecturers' understanding of peculiarities how to create such an environment has proved that only half of them understands its system-forming character for the effective teaching of students. Special attention is required by young lecturers who need to be provided with methodological assistance to improve their professional level.

Besides, methodological attention is required to the organization of independent student work. More than 50 % of lecturers note that they do not know all the tools of pedagogical techniques.

Lecturers are not prepared for formulating of a didactic purpose in accordance with the SMART technology, allowing to structure the educational process, and clearly predict its results. The greatest complications are for lecturers aged 41–55 and Candidates of Sciences.

Less than half of lecturers have an active knowledge of monitoring techniques to assess educational results and doing their correction. The other part of lecturers is poorly familiar

with this issue. Therefore, this problem can also be the subject of further study to improve the professional competence of the lecturer.

The most attention and development requires innovative, digital, and managerial competencies of lecturers. These competencies are the leading ones in their activities and the backbone for the development of other competencies.

Comparison of quantitative results obtained in the survey of lecturers and students provides

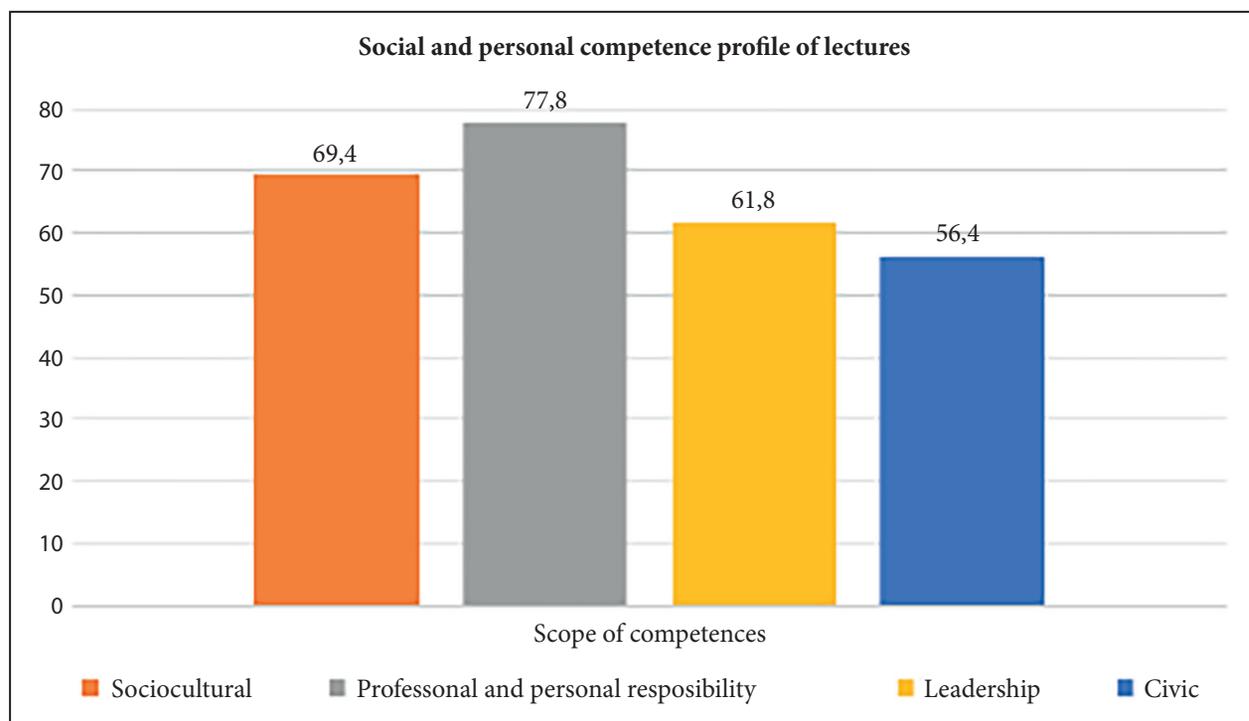
evidence of the relevance and necessity of the development of the above-mentioned competencies of lecturers. Students were more demanding to these competencies of lecturers, as evidenced by the figures in *Table 1*.

Lecturer's competencies in social and personal profiles are a core of overall higher school lecturer's professional activity. This profile is also heterogeneous in its content.

*Table 1*

QUANTITATIVE RESULTS OF PROFESSIONAL AND PEDAGOGICAL COMPETENCE PROFILE DIAGNOSTICS EVALUATED BY LECTURERS AND STUDENTS (ARITHMETIC MEAN)

Nº	The competence	Lecturers, %	Students, %
1	Innovative	42,4	58,5
2	Professional self-development	67,4	65,9
3	Digital	49,6	60,2
4	Communicative and interactive	64,8	67,1
5	Management	44,8	58,2



*Figure 8: Dynamics of higher school lecturer's competencies development in the social and personal profile*

As a result of the research, we have found out that the ability of a lecturer to show a developed emotional intelligence, pedagogical culture and ethics, assumes the presence of the following necessary qualities: keeping to norms of professional ethics with all subjects of educational process; perceiving young generation with their special values and needs; ability to constrain negative emotions and overcome bad mood; bringing up students' tolerant attitude to differences between people in the intercultural environment.

The ability of a lecturer to make professional decisions and be responsible for them involves the presence of the following necessary qualities: understanding of social significance and high responsibility of their professional activities; openness to communication, the desire to understand and solve complex situations; the ability to make decisions and take responsibility for successes and failures in professional activities.

Results of the analysis of higher school lecturers' competence "Professional Decision-Making and Responsibility for Their Consequences" indicates that the assessment of lecturers in this dimension does not coincide with expectations and perceptions of students. If results of a group with an unstable position of lecturers without a degree (27,78 %) is due to the lack of certain experience, the uncertainty of 16,67 % of Doctors of Sciences requires additional study. The distribution of responses of the unstable group according to the work experience demonstrated that the youngest group (up to 10 years of work experience) has a clearer idea of pedagogical management, knowledge of which they have received in recent years of lecturer training. The weakest position is shown in the group with the experience of 10–20 years,

but the group of more than 20 years is inferior to those who have experience of up to 10 years. This situation requires additional attention, as well as the development and awareness of lecturers that can be achieved through training sessions or special courses.

The ability of a lecturer to take a leadership position during the educational process involves the ability to support students, to have a dialogue with them and to promote the development of student self-government and youth initiatives. At the same time, the lecturer should show qualities of a universal leader: sticking to principles, initiative, collectivism, and self-confidence, the ability to show organizational, scientific and technical abilities, the desire to improve the professional level and pedagogical skills systematically.

The civil position of a higher school lecturer is an integral part of his/her competence. Thanks to it, the lecturer of higher education demonstrates himself as a highly cultured person, aware of his purpose in modern society, knows civic rights and duties, as well as the current legislation.

Analysis of the results shows that the least developed competencies were leadership and civic competence of lecturers.

Quantitative results obtained during surveys of lecturers and students provide an opportunity to compare these results. Students turned out to be more demanding about these competencies of lecturers, as evidenced by the figures in *Table 2*.

Competencies of lecturer's academic competence profile characterize a very important sphere of its activities related to a scientific research, its implementation, and promotion, organization of international cooperation presented in *Figure 9*.

*Table 2*

QUANTITATIVE RESULTS OF SOCIAL AND PERSONAL COMPETENCE PROFILE  
EVALUATED BY LECTURERS AND STUDENTS  
(ARITHMETIC MEAN)

№	The competence	Lecturers, %	Students, %
1	Sociocultural	69,4	66,5
2	Professional and personal responsibility	77,8	70,5
3	Leadership	61,8	68,7
4	Civic	56,4	68,7

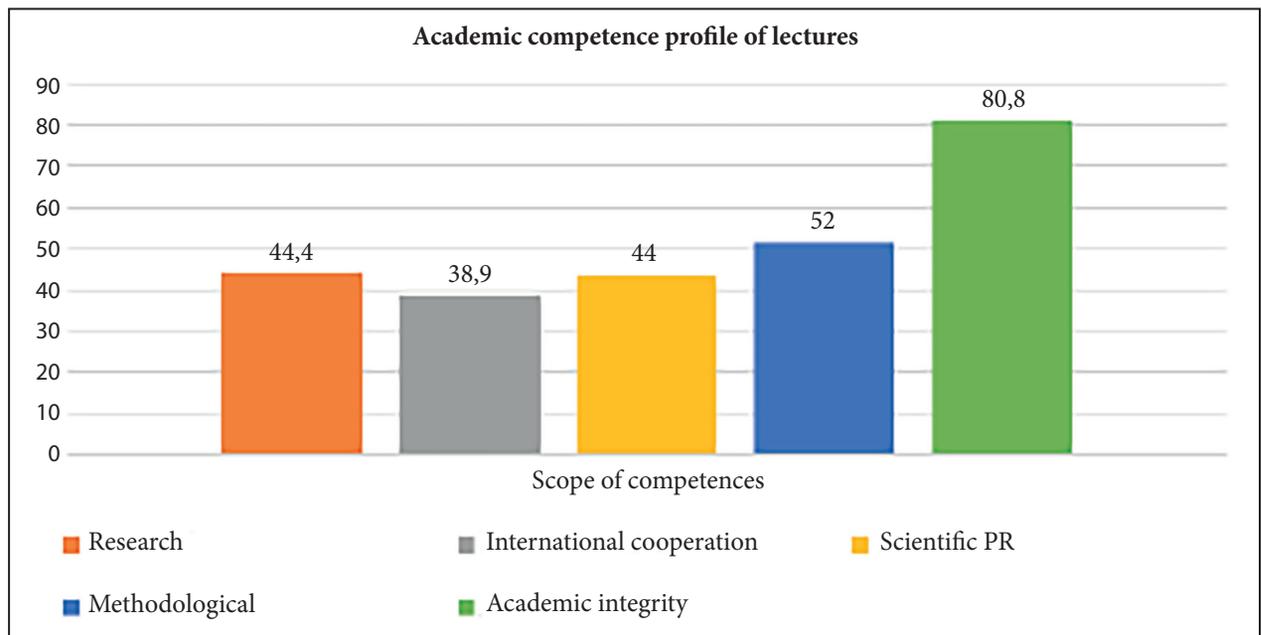


Figure 9: Dynamics of lecturer's competences development in academic profile

Summarizing the respondents' positions on the research competence of a higher school lecturer, we note a positive aspect, that none of the respondents denies its necessity. However, only 51,2 % of respondents take a firm position in this issue, which raises concern, on the one hand, and opens up space for educational work, the formation of topics of training. In addition, as the results of the survey show, it is necessary to pay attention to the involvement of lecturers in the implementation of joint research projects, the results of which can be further used in the educational process, both in the content and organizational context.

Mobility and international cooperation are one of the requirements of the Bologna process. The 21<sup>st</sup> century is characterized by the deepening of globalization and integration processes in all spheres, including scientific and educational ones. Therefore, the international exchange of applicants for education and representatives of the scientific and professorial staff is a sign of modernization of the educational sphere, successful civilizational development, one of the steps to the training of personnel able to work in the global market of services and labor. Therefore, it is important to explain the importance of this aspect of the lecturer's activities to teaching staff.

In our opinion, a critical indicator (34,8 % — Yes) is answers of respondents regarding the need to present their own scientific research

in publications included in the authoritative scientometric databases. It seems to us that the problem is much deeper than the mere unwillingness or lack of understanding of the importance of the issue. It is connected with the need to form a foreign language competence, particularly in English, which today has the status of "language of science"; intensification of research activities, including the actualization of research topics; acquiring the skills of presentation of research results according to new standards.

Answering previous questions and revealing the readiness and necessity for the higher school lecturer to popularize the results of his own research is the competence of scientific PR. It indicates the requirement for work among the academic staff on the need for wider implementation of the results of their own research in teaching practice. However, the scope of their research covers scientific problems related to the content of training courses included in the lecturer's teaching load.

The survey results show that 91,2 % of respondents consider methodological competence to be important, which is the overwhelming majority. However, our study did not aim to identify respondents' opinions on the content of this competence and the levels of its formation among respondents. This may be the subject of further research.

In addition, in our opinion, the lecturer of higher school should be prepared in a certain

way for the monitoring and pedagogical evaluation of the results of the educational process, because most of the current lecturers have not studied in the institution of higher education disciplines that would ensure their readiness to carry out such activities. After all, only 44 % of the respondents are convinced in the necessity of possession of such skills. These may be separate training sessions or complex training modules of longer duration, which may be included in programs of professional development or training.

Positive results, in our opinion, are demonstrated by respondents in the context of understanding the importance of compliance with the standards of academic integrity by a lecturer of higher education (80,8 % — Yes). Now it is important to find out how the academic community really adheres to these standards. Besides, the next step,

in the context of promoting the idea of academic integrity in the environment of higher education, should be the dissemination of these ideas and beliefs to the student community.

For Ukrainian scientists, the stage of entry into the European scientific community, the establishment of international scientific contacts, the development of academic mobility is just beginning. In this regard, within the academic profile of the lecturer, research competence, competence of scientific PR and international cooperation are poorly developed. Description that is more detailed should be provided.

Quantitative results obtained during surveys of lecturers and students give an opportunity to compare these results. Students turned out to be more demanding about these competencies of lecturers, as evidenced by the figures in *Table 3*.

*Table 3*

QUANTITATIVE RESULTS OF COMPETENCE DEVELOPMENT IN ACADEMIC PROFILE  
EVALUATED BY LECTURERS AND STUDENTS  
(ARITHMETIC MEAN)

№	The competence	Lecturers, %	Students, %
1	Research	44,4	58,8
2	International cooperation	38,9	57,3
3	Scientific PR	44,0	60,8
4	Methodological	52,0	63,9
5	Academic integrity	80,8	61,7

The sequence of pedagogical experiment phases, a sufficient number of its participants (students and lecturers), the reliability of research methods have become the most important conditions for defining and diagnosing of the complex of higher school lecturer's competencies, meeting the requirements of the time.

### *Statistics analysis*

To further analysis the data, we used standardized statistical procedures, developed by specific functions in the program "Microsoft Excel".

In order to find out the real attitude of lecturers and students on the problems of research, well-known statistical criteria of Pearson  $\chi^2$  and Fisher  $\phi^*$  are chosen.

First, the statistical data concerning groups of lecturers and students are compared using the Pearson criterion  $\chi^2$ . The generalized data on three competence profiles is used.

The obtained empirical data  $\chi^2$  are less critical  $\chi^2_i = \begin{cases} 7,815, p \leq 0,05 \\ 11,344, p \leq 0,01 \end{cases}$  for the number of degrees of freedom  $\nu=3$ , i.e., the differences between the distributions (groups of lecturers and students) do not exist, where  $\chi^2$  the empirical value criterion  $\chi^2_i$  is the critical value criterion (table), the p-level of significance). Thus, it can be argued that, in general, lecturers and students value the significance of a lecturer's competence alike in different profiles. Therefore, we got a general attitude of groups of respondents to define higher school lecturer's competencies. However, the most important thing for us was to find out how the groups differ within

the established statement “Yes”, which we see as an indicator of real readiness of lecturers to change, defining of their own active professional position.

In order to find it out, calculations by Fischer criterion are made  $\varphi^*$ . It is discovered that there are the biggest differences regarding certain estimative statements of lecturers and students on academic profile competencies (Table 4).

The table shows the results of the academic profile competencies evaluated with a positive statement “Yes” by lecturers and students.

We have  $\varphi_2^* = 1,88$ ,  $\varphi_1^* = 1,64$ ,  $\varphi_1^* < \varphi_2^*$ , where  $\varphi_2^*$  is the empirical value of criterion, and  $\varphi_1^*$  is the critical value of the criterion. Thus, the difference in lecturers’ and students’ perception is statistically reliable.

The received statement provoked researching an important question of detecting the difference between lecturers and students in the above-mentioned competencies filling different profiles. That is why quantitative results of respondents are compared using the Fisher criterion  $\varphi^*$  (Table 5).

Table 4

SUMMARIZED RESULTS OF THE ACADEMIC COMPETENCIES PROFILE EVALUATION BY LECTURERS AND STUDENTS ACCORDING TO FISHER CRITERION  $\varphi^*$

Groups	“There is an effect”, %	“No effect”, %
Lecturers	48,2	51,8
Students	61,4	38,6

Table 5

A COMPARISON OF LECTURERS’ AND STUDENTS’ ATTITUDES TOWARDS THE ASSESSMENT OF COMPETENCIES ACCORDING TO THE FISHER CRITERION  $\varphi^*$  (“YES” STATEMENT)

№	Competencies	Lecturers, %	Students, %	$\varphi_2^*$
<b>Professional and pedagogical profile</b>				
1	Attitude to reforms	42,40	58,55	2,305
2	Professional self-development	67,47	44,15	3,345
3	Processing information and use of ICT	49,60	60,22	1,506
4	Interaction with students	64,80	67,1	0,346
5	Educational process management	44,80	58,15	1,057
<b>Social and personal profile</b>				
1	Teaching culture and ethics	69,40	66,54	0,332
2	Making professional decisions and taking responsibility for the consequences	77,87	70,17	1,245
3	Leadership qualifications	61,87	68,77	1,025
4	Civic position	56,40	68,77	1,817
<b>Academic profile</b>				
1	Implementation of the scientific research results into practice	44,40	58,73	2,029
2	Internationalization of education and science	38,93	57,37	2,63
3	Promotion of personal scientific research	44,00	60,78	2,39
4	Using scientific methodology and research tools	52,00	63,93	1,711
5	Academic integrity	80,80	72,49	1,386

Considering the critical value of the criterion  $\Phi_1^* = \begin{cases} 1,64, & p \leq 0,05 \\ 2,31, & p \leq 0,01 \end{cases}$ , where  $p$  is the level of relevance, we have found out that lecturers and students are ambiguous about the evaluation of higher school lecturer's competencies. Their request to the level of some of the lecturer's competencies is much higher than the real state of these competencies formation. This is seen most strongly in the evaluation of the following competencies of lecturers:

- professional self-development;
- internationalization of education and science;
- promotion of personal scientific research;
- attitude towards reforms (for the level of relevance  $p \leq 0,01$ ).

Some differences are detected in assessing the real state of the following competencies by lecturers and students:

- civic position;
- implementation of the scientific research results into practice;
- using scientific methodology and research tools (for the level of relevance  $p \leq 0,05$ ).

### **Generalization**

1. A theoretical and methodological analysis of the problem of studying the competencies of lecturers of higher school in the epoch of change allows to reveal these competencies in three profiles, reflecting the main areas of activity of lecturers: professional and pedagogical, social and personal and academic. Within the framework of the professional and pedagogical profile, it is established that the most developed are the competence in professional self-improvement, communication and interaction.

The most attention and development are required for innovative, digital, managerial competencies. Thus, lecturers, mostly aged 41 to 55, are not fully prepared for the transformation processes in society and education, do not show flexibility and entrepreneurial initiative. They are not sufficiently aware of the new information trends in education and the possibilities of their use. Lecturers have little understanding of the system-forming nature of the educational environment for effective training of students. It is established that methodological attention is required by the questions of the organization of independent work of students, the realization of SMART technology, using monitoring technologies of an assessment of educational results, etc. In addition, the study has

revealed that it is innovative, digital and managerial competencies that reflect modern educational trends and challenges of a globalized society.

2. Assessing the components of socio-personal competence profile of lecturers, we have found that the most developed are the following competencies: professional and personal responsibility and socio-cultural competency. However, it is discovered that many lecturers have an unsteady position on leadership in the educational process. Thus, they are insufficiently principled, initiative, confident in their abilities, not able to show organizational, scientific and technical abilities, do not want to systematically improve the professional level and pedagogical skills. In addition, the issue of professional development of lecturers in the context of awareness and respect for citizenship requires attention, which implies the focus of the educational process on the formation of citizenship among students, enrichment of spiritual, national, linguistic culture of the individual, wide involvement of young people in civic values and their knowledge in the process of professional training. Consequently, the leadership and civic competence of lecturers require further development and correction.

3. Analysis of the components of the academic competence profile of lecturers allows us to find out that academic integrity and methodological competencies have the highest level of development. However, the lack of lecturer's understanding of the importance of scientific work as the most important component of professional activity causes concern. Thus, there is a weak desire to update the subject of their own research, the acquisition of skills to promote and present the results of research at the national and international levels, the use of their own scientific achievements in teaching practice, etc. This made it possible to establish that research, international cooperation, and scientific PR competencies require improvement.

4. The results of diagnostics allow determining a set of actions that are aimed at improving the quality of activities of lecturers of the higher school, and development of their professional competencies. These actions can be implemented at different levels of evaluation and regulation of the activities of teaching staff: institutional, national and European. The theoretical and practical effect of the study is the possibility of developing European standards of professional activity of lecturers of the higher school to implement the main goal of higher education improving its quality.

## DEVELOPMENT OF ACADEMIC STAFF COMPETENCES IN POLAND

Noticing the need for participation in the discourse on the transformations of higher education in Poland in the 2010s, an international research team has prepared some studies concerning the competences of academic teachers in three Visegrad countries (Czech Republic, Poland, Slovakia) and in Ukraine. What will be brought closer in this chapter are the following: the current situation in higher education, the implemented reform and the statistical reference to the condition of Polish education at this level. On the basis of selected expert literature, the definitions of competences are provided and these notional categories are discussed in the context of Poland. The Polish section of the research is presented, which will allow for indicating the fields for analysis. As in previous chapters, some recommendations at the national level are provided in the final part.

In the period of the Polish People's Republic, higher education was centrally managed and the limits of university entrance were established at a very low level. Future teachers were educated in Higher Pedagogical Schools in six major courses:

1. Care Pedagogy;
2. Defence Pedagogy;
3. School Education;
4. Cultural-Educational Pedagogy;
5. Pre- and Early School Education;
6. Work Pedagogy.

In the 1970s, the education of pedagogy experts (educationalists) was separated from the education of teachers, which resulted in distinguishing (moral) education from didactics (teaching). In this way, the "superiority" of education (indoctrination) over teaching was emphasized (Hejnicka-Bezwińska,

2015, p. 401). Educating teachers, as less important, was conducted by "other organizational units which mostly employed people who had not managed to acquire scientific degrees" (Hejnicka-Bezwińska, 2015, p. 401).

A fundamental change in higher education took place after the political transformation, especially after the "privatization" of school education at all levels, introduced in the early 1990s. What followed was a rapid increase in the number of private universities and university students (particularly, those learning in the part-time system).

The large number of students since the early 1990s has resulted from several factors. The first were the growing educational aspirations of the Polish society, enhanced by abolishing the entrance limits in universities and free access to upper education, regardless of the age, for all people who had passed final secondary school exams (in Polish called *matura*). Another factor was the introduction (by state universities) of fee-paying part-time studies. Education in this form was conducted on Saturdays and Sundays, which provided the possibility of studying for working people.

Moreover, the mass popularization of university education in those years took place due to new regulations requiring higher qualifications. For example, the requirement of completing higher education by teachers was introduced. The graduates of two-year-long post-secondary teachers' colleges were offered a possibility to continue education in the form of three-year-long master degree studies, mostly conducted in the part-time system.

Unfortunately, in 2007/2008 every second student (51,5 % of the total number of university students) was educated in the form of part-time studies (*Szkoły wyższe i ich finanse*, GUS, 2008).

Table 1

THE DATA ON THE NUMBER OF UNIVERSITIES,  
STUDENTS AND TEACHERS IN POLAND IN 1990–2016

Categories	State universities		Private universities		Total number of students	Gross enrollment index	
	NU	NS	NU	NS		gross	net
1990–1991	112	381 857	1	–	403 842	12,9	9,8
1995–1996	113	709 431	75	70 476	794 642	22,3	17,2
2000–2001	115	1 112 464	195	472 340	1 584 804	40,7	30,6
2005–2006	130	1 355 726	315	620 800	1 953 832	48,9	38,0
2010–2011	132	1 261 175	328	580 076	1 841 251	53,8	40,8
2015–2016	132	1 139 452	283	329 934	1 469 386	47,6	37,3

Legend: NU — number of universities; NS — number of students

Source: Szkoły wyższe i ich finanse, GUS

The popularization of higher education was meant to be enhanced by introducing two degrees of university studies, which resulted from the implementation of the Bologna Process. Among other undertakings aimed at adjusting higher education to the European system, there were: the introduction of the diploma supplement, the European Credit Transfer System, the establishing of the National Accreditation Commission, the promotion of mobility (e.g. within the Socrates/Erasmus programme or bilateral agreements between countries). The Act of 27<sup>th</sup> July 2005 *Law on Higher Education* introduced the first degree studies (bachelor or engineering studies, which enable the acquisition of knowledge and skills in a specified educational scope, training for work in a particular profession and are completed with achieving the title of Bachelor of Arts or Science) and the second degree studies (master degree studies, which enable the acquisition of specialized knowledge in a specified educational scope, training for creative work in a particular profession and are completed with achieving the title of Master of Arts or an equivalent title). Only very few university courses were conducted in the form of uniform five-year-long studies. In the academic year 2007/2008, 83 % of students were educated in the form of the first and second degree studies within the Bologna structure, not as uniform master degree studies (*National Report*, 2009, p. 5).

As it is stressed by Teresa Hejnicka-Bezwińska (2015, p. 397), what was introduced in Poland seemed to be “the Vistula region version of the Bologna

process”. Due to rather low recognition of the first degree studies as fully valuable higher education, most of Polish students continued learning at master degree studies (*The European Higher Education Area*, 2012, p. 39). Moreover, the OECD experts notice that the changes in the Polish system of higher education were implemented with a lot of determination, however, they were not executed till the end. The changes in legal regulations opened new developmental pathways, but some fields have been neglected and this has currently become the heaviest burden. The major drawback of the present *status quo* is the fragmentary nature of the implemented transformations and the lack of complete comprehensive changes (*OECD Report*, 2007).

The mass popularization of higher education was associated with many difficulties, especially with staff shortages. In the academic year 1990/1991, 381 857 students were educated in 112 state university-level schools, in which over 60 thousand academic teachers were employed. This meant that there were 6 students per one academic teacher. A decade after the privatization of higher education, the number of state universities remained on a similar level (three new had been established), but the number of private universities had grown to 195. In comparison to 1990, the number of academic teachers had only slightly increased (almost 80 thousand) and the ratio was 22 students per one teacher. As the research results show, this mass popularization of higher education resulted in lower quality of education. This is confirmed

by the authors of *Strategia rozwoju szkolnictwa wyższego: 2010-2020 — projekt środowiskowy* [*The Strategy for the Development of Higher Education: 2010-2010 — an environmental project*] (2009, p. 42) — they mention the lack of barriers in university entrance, a substantial decrease in the number of didactic hours and lowered quality of teaching. Some other factors were associated with the character of new university-level schools, which had no educational traditions and experiences and whose graduates often studied in poor (infrastructural and staff) conditions. This took place due to insufficient investments in universities. Higher education in Poland is largely fragmented — what prevails in its structure are small universities — mostly representing the private sector (*Strategia rozwoju szkolnictwa wyższego w Polsce*, 2010, p. 26).

Those difficulties were to be counteracted by the changes introduced in the Act of 18<sup>th</sup> March 2011 on the change of the previous act — *Law on Higher Education*. The changes were based on a strategic document prepared for the Ministry of Science and Higher Education *Strategia rozwoju szkolnictwa wyższego w Polsce do 2020 roku* [*The Strategy for the Development of Higher Education in Poland till 2020*] and a document approved by the Conference of Rectors of Academic Schools in Poland *Strategia rozwoju szkolnictwa wyższego: 2010-2020 — projekt środowiskowy* [*The Strategy for the Development of Higher Education: 2010-2010 — an environmental project*] (*Strategia rozwoju szkolnictwa wyższego*, 2009).

Another problem affecting Polish higher education has been the incompatibility of the educational offer to the needs of the labour market. This is to be improved by the studies conducted by career offices, consulting firms, recruitment portals, etc., the results of which point to introducing necessary changes to bring closer academic education to the situation on the labour market (*Strategia rozwoju szkolnictwa wyższego*, 2009, pp. 45, Slovakia 46). University curricula do not sufficiently educate students in soft competences, so much valued by employers, especially in the field of new technologies, teamwork, critical thinking, implementing constructive criticism, and practical applications of the acquired knowledge. The results of the research report *Oczekiwania pracodawców wobec absolwentów uczelni* [*Expectations of Employers from University Graduates*] (2014) as well as of the partial reports and the final one of *Analiza kwalifikacji i kompetencji kluczowych dla zwiększenia szans absolwentów na*

*rynku pracy* [*Analysis of Qualifications and Key Competences for Increasing the Chances of Graduates on the Labour Market*] (2014) indicate substantial divergence between the assessment of competences conducted by students and employers. The biggest gaps in the assessment of competences by students, graduates, universities and employers concern the following competences: communication — interpersonal (−1,04246), vocational — self-organizational (−0,96142), personal — cognitive (−0,92962), general vocational — knowledge (−0,67358).

The implementation of the solutions compliant with the National Framework for Higher Education Qualifications seemed to bring about better didactic quality. In 2008, the members of the European Union were obligated by the recommendation of the European Parliament and Council to design and develop the national framework for qualifications in reference to the European Framework for Qualifications, which comprises all educational levels — including higher education. In Poland, the amendment of the Act *Law on Higher Education* took place only in 2011. In the opinion of international experts, Poland has the most to catch up in this field. Moreover, there are some problems with recognizing by universities various forms of acquiring knowledge and skills (also those acquired beyond the system of higher education) (*Strategia rozwoju szkolnictwa wyższego w Polsce*, 2010, p. 46).

Among other things, the changes introduced in the academic year 2011/2012 comprised: increasing the curricular autonomy of universities by giving up the list of major courses and the framework of teaching contents; the principles of financial maintenance of universities — establishing the pro-quality fund which finances the academic units with the status of National Leading Scientific Centres or with the evaluative distinction of the National Accreditation Commission; the principles of activating new major courses (universities gained more freedom in this field); the principle of fee-paid second courses (only the best students were exempted from this charge); and the obligation to conclude a contract between a university and a student, in which e.g. The scope of students' payments was specified.

Educational standards were limited to didactic rules at studies preparing for, among other professions, being a teacher.

The main effects of implementing the National Framework for Higher Education Qualifications assumed ensuring the comparability of quali-

fications in the national and international scale, some changes in course design — focus on teaching effects, and more transparent information on the competences acquired by university graduates. Another effect was associated with employers' expectations — with the better tailoring of university curricula to expectations and learners' predispositions as well as to social needs and the labour market. The Framework was also meant to increase the diversification of graduates' competences, to enhance their capability of employment, to improve the quality and efficiency of Polish higher education, to increase autonomy of universities in course design and in opening new major courses, as well as to enhance flexibility in the implementation of curricula.

The work on a new reform of higher education has been continued since 2016, with the aim of preparing the so called Act 2.0. It entered into force on 1<sup>st</sup> October 2018 as the Act *Law on Higher Education and Science*. The reform schedule assumes gradual implementation of the act since October 2018 and the introduction of new university statutes is planned since October 2019. In 2018, competitions will take place aimed at eliciting research universities and regional perfection initiatives. In 2020, the term of the current rectors will end and the results of the new evaluation will be revealed in 2021.

After twelve years of educating teachers in the two-degree system, the ministry have withdrawn from this solution. In the Directive of the Minister of Science and Higher Education of 27<sup>th</sup> September 2018 on university studies, it was assumed that the education of teachers within the course pre- and early school education will take place in the form of uniform five-years-long master degree studies, which would start in the academic year 2019/2020. The other major courses for teachers will be still conducted in the two-degree form. Thus, the university offer for educationalists (including students of pre- and early school education in pedagogical faculties) and teachers of particular subjects (in other faculties, for instance — chemistry teachers in faculties of chemistry) has been unchanged. Therefore, teaching qualifications can be acquired by completing:

- 1) two-degree studies 3 + 2 with the teaching specialization;
- 2) two-years-long master degree studies with the teaching specialization after any bachelor degree studies (e.g. sociology, cultural studies) and the supplementation of curricular differences;

3) post-graduate studies guaranteeing pedagogical and teaching qualifications;

4) qualification courses.

In Poland, there are no entrance examinations to universities, no examinations qualifying for the teaching specialization, no introduction programmes for kindergarten and school teaching beginners, no state certificates or examinations qualifying for the teacher's profession. As T. Hejnicka-Bezwińska (2015, p. 405) notices, every year, a huge number of graduates leave various universities with formal qualifications to be employed in educational institutions.

For over thirty years, the education of teachers has not been regulated in a single legal act, the new law on higher education, introduced in 2018, does not wholly amend the situation as well.

Specifying the tasks and functions of present day university is difficult and ambiguous because the expectations from it are diverse — as much different as many addressees interested in this problem there are: the state, society, students, academic teachers (Dybaś, 2007, p. 690). However, it is impossible to describe any of the aspects of university functioning without focusing on people who constitute it and the processes associated with the role of university.

In the pedeutological literature, there are many definitions of an academic teacher. E. Radecki specifies an academic teacher as a person “whose goal is to educate their students in the most perfect way and who aims at fulfilling this task in the best and most effective way, using all their expert and pedagogical knowledge, energy, predispositions and skills” (Radecki, 1998, p. 9). According to A. Sierecka and K. Pindor, academic teachers are “a specific group of professionals as it is their “guardian charge” where students get with the aim of acquiring appropriate information and qualifications needed for performing the chosen profession” (Sierecka & Pindor, 2012). Academic teachers combine two fields in their professional activity — science and didactics. Therefore, what becomes an important issue in the literature concerning higher education didactics in the search for competences needed in both these areas?

The term competence is derived from the Latin word *competentia* and denotes “the subject's capability and readiness to perform tasks on the expected level” (Kwiatkowska, 2008, p. 35). In the case of “teaching competences”, they mean “a set of professional skills, knowledge, values and attitudes which every teacher should acquire

to perform their work effectively” (Průcha, 2006, p. 306). Professional competences of academic teachers are strictly related to educational philosophy, the growth of knowledge and means of information, technological transformations and the changes of educational goals. These competences result from all the changes taking place in the environment of university as an institution.

The academic teacher’s profession is the field of interest focused on by psychologists, philosophers, educationalists and sociologists. Yet, there is neither the final list of psycho-didactic qualities nor the set of competences which would ensure high quality of teaching and studying. Thus, who is a competent academic teacher? it seems it is a person, who apart from knowledge, possesses the skills and personality traits owing to which educational goals can be achieved in an effective and responsible way.

As regards teachers’ competences, there are many classifications, in which authors refer to the essence and specificity of this profession, as well as to tasks and functions fulfilled by teachers. In W. Strykowski’s opinion, these competences can be divided into three groups:

— *content-based* —

pertaining to the contents of the taught subject;

— *didactic-methodological* —

focusing on the workshop of the teacher and the learner;

— *educational competences* —

concerning various ways of influencing students (Strykowski, 2003, p. 23).

The same author has broadened this list with the following (Strykowski, 2005, pp. 18–26):

— *psychological-pedagogical competences* —

associated with the teacher’s pedagogical and psychological knowledge, allowing for finding the theoretical foundation of diagnostic, didactic and educational activities;

— *diagnostic competences* —

pertaining to the knowledge and skills needed for closer recognition of learners;

— *design and project competences* —

allowing the teacher to design courses, plans and projects of didactic and educational activities in a conscious and aimful way;

— *communication competences* —

associated with the knowledge and skills of efficient direct and indirect (through media) sending and receiving messages;

— *media competences* —

focusing on the skill of using simple means, mass media and information technology;

— *control and evaluation competences* —

concerning the control over learners’ achievements and the measurement of the quality of school work;

— *course and course book assessing competences* —

enabling the application of appropriate tools after taking into account adequate criteria;

— *self-education competences* —

associated with the need for constant learning and self-improvement.

T. Nowacki claims that professional qualifications comprise three types of structures, out of which the systems of skills are superior — though, they earlier require informational foundation — theoretical-practical knowledge. The third structure, combining the two previously mentioned, are personality factors, among which motivational processes get special significance (Nowacki, 1999).

Another classification is suggested by R. Kwaśnica who distinguishes two groups of competences. The first consists of practical-moral competences, which involve:

— *interpretative competences* —

the ability to refer to the world with understanding;

— *moral competences* —

understood as the capability of moral reflection;

— *communication competences* —

the ability to take part in dialogue.

The second group are technical competences, comprising:

— *normative (postulative) competences* —

treated as the ability to support instrumentally understood goals and the identification with them;

— *methodological competences*;

— *implementary competences* —

understood as the skill of choosing the means and creating the conditions favourable for achieving the goals (Kwaśnica, 2003, pp. 298–303).

The author is of the opinion that, in the case of some professions (including teaching), practical-moral competences prevail. This takes place because technical competences each time require legitimization, which teachers have to do themselves. In this sense, they are secondary, not basic (Kwaśnica, 1990, p. 296).

What also appears among the competences discussed in expert literature are the so called key competences, which are a derivative of knowledge, emotions and behaviours. They comprise “the indispensable skills, constituting the foundation for further studies, interdisciplinary competences (the ones essential for functioning in the modern world — reading comprehension, mathematical reasoning) and cross-sectional competences,

independent from the university course. The latter comprise the skills of communication, problem solving, logical thinking, leadership, creativity, motivation, team work, learning an attitude (related to such personal competences as: cognitive curiosity, motivation) and the skills of using modern ICT, mostly the Internet, for eliciting, selection and application of data” (Denek, 2009, p. 179).

Due to the specificity and significance of the academic teachers’ profession, many authors emphasize that their competences should be broad and diverse, academics should aim at developing them, as it is the level of competences, which determines the education of the young generation. “Research-didactic workers cannot be afraid of changes, be “labelled” and closed for new ways of acquiring and disseminating the knowledge. Teachers must be open to the dialogue with students and be able to show them the further pathways of personal development. Offering knowledge and ready solutions “on a plate” is inappropriate. One needs to be able to indicate directions. The teacher has to develop vocational passions among students. Learners should get enthusiastic about something, start loving something, in order to deal with this something with zest after graduating. What is necessary to make such education possible are teachers with versatile competences as only such educators equip their learners with competences needed in life” (Sierecka & Pindor, 2012, p. 268).

Z. Kwieciński’s words are still valid — he stresses that it is necessary to “educate and train teachers with new, different than so far, competences: as regards contents — more cumulative than highly specialist, more open than closed, more creative than imitative, and as regards the character of teachers’ professional role — drifting apart from the function of a transmitter and an executioner towards the role of a guide and an interpreter” (Kwieciński, 2000, p. 17).

In the next section, the Polish part of the research will be presented. This will enable the indication of the fields for analysis.

Two questionnaires in the online version were prepared for the studies. One was addressed to academic teachers, the other — to students. 63 questionnaires were obtained from academic teachers. Their results were subjected to quantitative analysis. For processing the obtained empirical data, statistical methods were applied, aimed at comparing the rates of the profiles of teachers’ and students’

competences according to Pearson’s criteria, as well as at comparing the profiles of academics and their learners according to Fisher’s criterion.

In the examined group, women (76 %) dominated over men (24 %). The largest age group was 41–55 years (49 %), the age 25–40 constituted 35 % and 56–70 % — 16 % of the respondents. As the declared scientific degree or title is concerned, the largest group were doctors (PhD holders) — 55 %; there were 25 % of doctors with habilitation and 20 % of MA holders. The respondents represented similar groups as regards work seniority — 37 % of people working for 11–20 years, 33 % — more than 20 years and 30 % — less than 10. The detailed data are presented in *Figure 1* (p. 30).

The presentation of the research results was aimed at familiarization with the declarations of academic teachers and students of the Faculty of Ethnology and Education in Cieszyn (University of Silesia in Katowice) concerning their competences. Due to the limited possibilities of publishing the full results, the analyses are presented of some selected questions from particular groups of competences. Three questions have been chosen in the first group:

- Do you consider interactive collaboration with students as the most effective in the process of learning?
- Do you have a positive attitude to the reforms and changes taking place in higher education?
- Are you satisfied with the outcomes of your professional activities?

Most frequently, the surveyed academic teachers treated interactive collaboration with students as the most effective in the learning process. A similar number of respondents answered *rather yes than no* (38 %) and *yes* (37 %). In the group of teachers who are more sceptical about the interactive form of contact, 21 % provided the answer *rather no than yes* and 4 % — *no*.

Much more negative attitudes were observed among the respondents in the case of the reforms and changes taking place in higher education — 41 % answered *rather no than yes*, 38 % — *rather yes than no*. A similar number of teachers provided extreme answers — 11 % — *no* and 10 % — *yes*.

The surveyed academic teachers are mostly satisfied with the effects of their professional work — positive answers prevailed here: *yes* — 46 % and *rather yes than no* — 41 %. Only 3 % of respondents claimed they were dissatisfied and 10 % declared the answer *rather no than yes*. The detailed data are presented in *Figure 2* (p. 30).

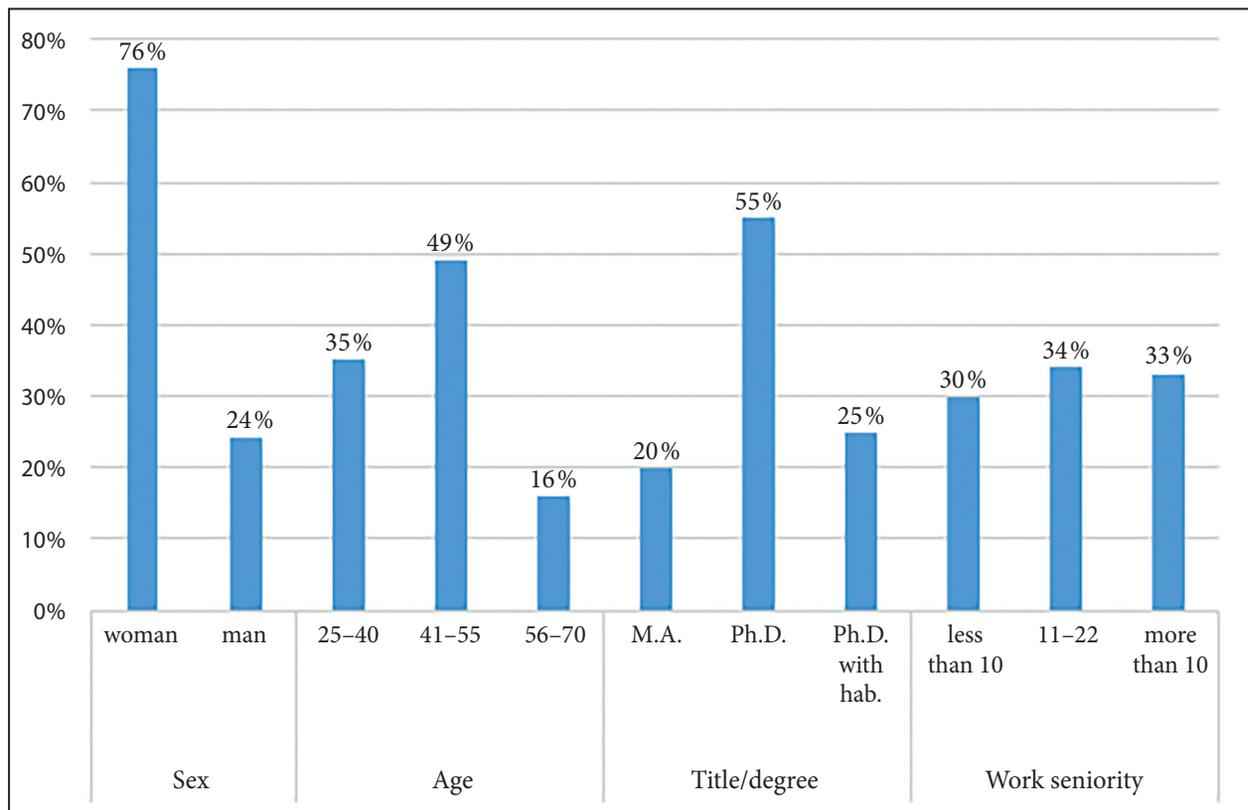


Figure 1: Demographic characteristics of the respondents

Source: own studies

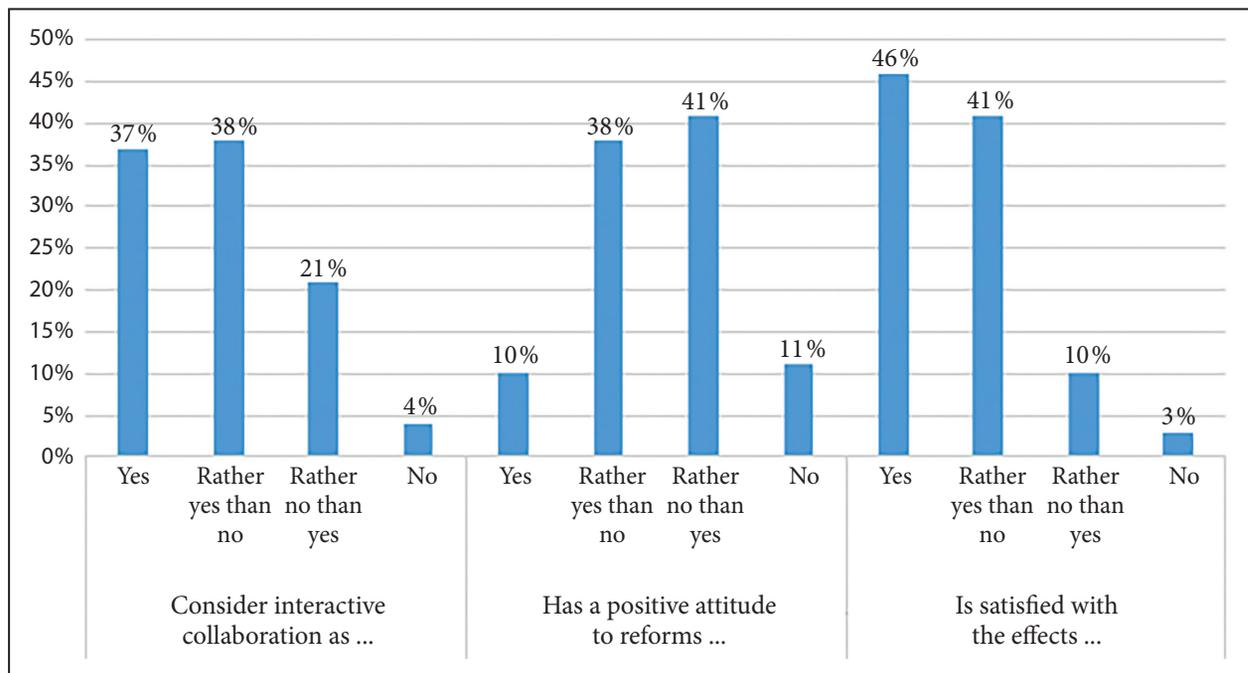


Figure 2: Declarations of respondents

Source: own studies

In the second group of competences, the data referring to the following questions have been chosen for analysis:

- Do you perceive the young as a generation of particular values and needs?
- Are you open to communication, do you aim at understanding and solving complicated situations?
- Do you promote tolerance for differences among people in multicultural environments?

Over a half of the respondents (54 %) stated that they perceive the young as a generation of particular values and needs, 35 % chose the answer *rather yes than no*. Only 11 % declared the answer *rather no than yes*. In the case of this and the next question, nobody declared the answer *no*. Almost all surveyed academic teachers consider themselves to be open to communication and aiming at understanding and solving complicated situations — 70 % answered *yes* and 29 % — *rather yes than no*. The quantitative distribution of data is similar in the next question, concerning the promotion of tolerance for differences among people in multicultural environments. The answer *yes* was chosen by 67 %, *rather yes than no* — by 30 %, the answers *rather no than yes* and *no* were declared by 2 % per each. The detailed data are presented in *Figure 3*.

As regards the third group of competences, the following questions have been selected:

- Do you implement some main forms of internationalization of higher education (mobility of students and teachers, foreign internships, etc.)?
- Do you publish the results of your research in scientific publications?
- Do you design diagnostic tools for the analysis of scientific data?

In the case of implementing internationalization, the most frequent answer was *rather yes than no* — 35 %, 30 % declared the answer *yes*. A similar number of respondents answered that they do it in a rather small scale (27 %), the definitely negative answer was chosen by 8 % of teachers. The activities associated with publishing the research results were more favourably evaluated, which seems obvious due to the annual requirements concerning scientific achievements, imposed in Poland on academic teachers. 67 % chose the answer *yes*, 29 % — *rather yes than no*, and only few (2 % and 2 % respectively) declared their poor engagement in such activity. What might surprise in the context of these data are the answers to the question pertaining to diagnostic tools for analysing scientific data. 46 % chose *rather yes than no*, 24 % declared *yes*, but as many as 24 % stated that they do this rarely and 6 % that not at all. The detailed data are presented in *Figure 4*.

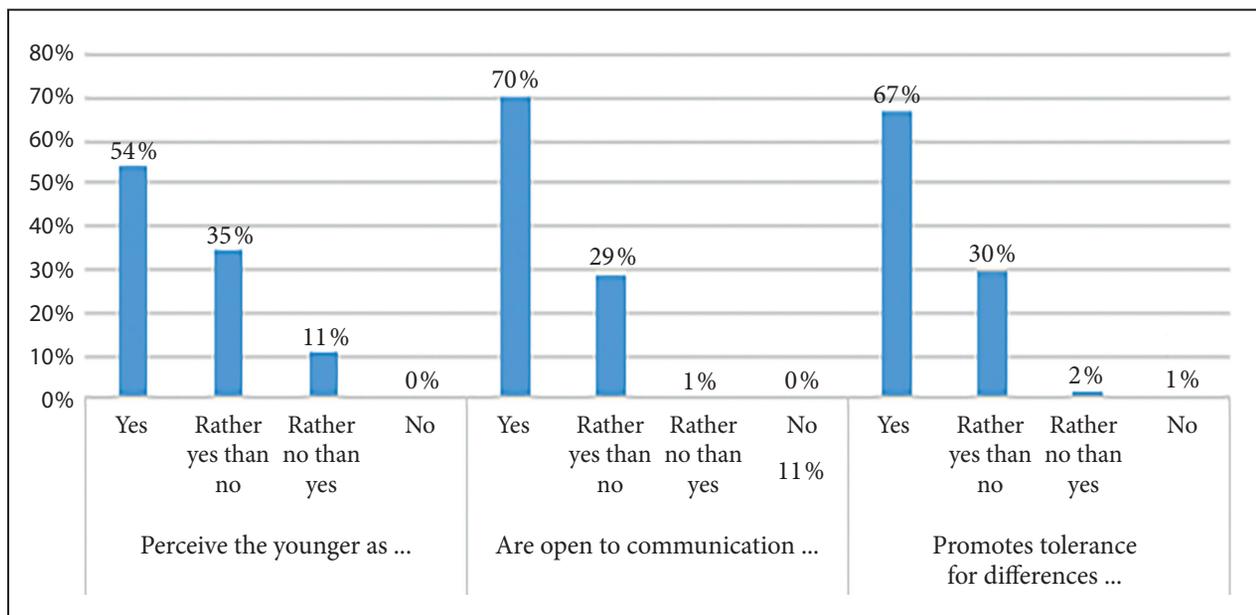


Figure 3: Declarations of respondents

Source: own studies

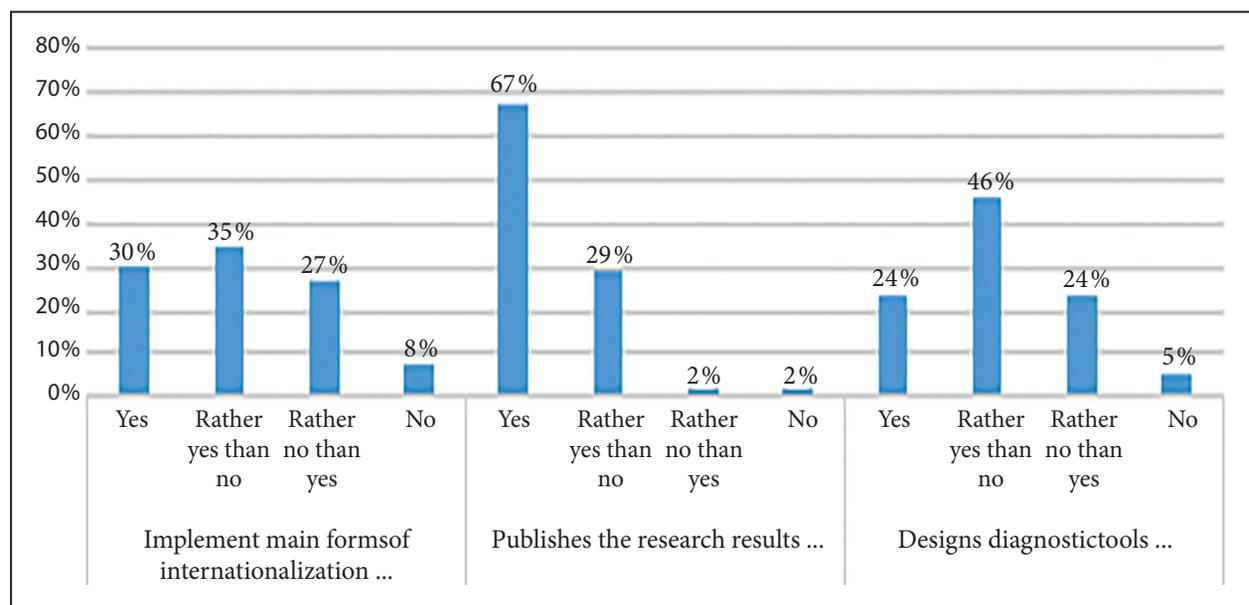


Figure 4: Declarations of respondents

## VOCATIONAL-PEDAGOGICAL PROFILE

	Teachers X	Students Y	Part X	Part Y	(Part X-Part Y) <sup>2</sup>	(Part X-Part Y) <sup>2</sup> / Number of all participants
Yes	21	71	0,3333	0,4329	0,00992	0,00004370
Rather yes than no	24	71	0,3810	0,4329	0,00270	0,00001190
Rather no than yes	13	16	0,2063	0,0976	0,01183	0,00005214
No	5	6	0,0794	0,0366	0,00183	0,00000806
Total	63	164				0,00011579

Empirical significance/value 1,196381457

Critical significance/value (a=0,05) 7,814727903

Critical significance/value (a=0,01) 11,34486673

**No statistically significant differences**

## SOCIAL-PERSONAL PROFILE

	Teachers X	Students Y	Part X	Part Y	(Part X-Part Y) <sup>2</sup>	(Part X-Part Y) <sup>2</sup> / Number of all participants
Yes	28	100	0,4444	0,6098	0,02733	0,00012039
Rather yes than no	23	55	0,3651	0,3354	0,00088	0,00000389
Rather no than yes	9	8	0,1429	0,0488	0,00885	0,00003899
No	3	1	0,0476	0,0061	0,00172	0,00000759
Total	63	164				0,00017086

Empirical significance/value 1,765328537

Critical significance/value (a=0,05) 7,814727903

Critical significance/value (a=0,01) 11,34486673

**No statistically significant differences**

## ACADEMIC PROFILE

	Teachers X	Students Y	Part X	Part Y	(Part X-Part Y) <sup>2</sup>	(Part X-Part Y) <sup>2</sup> / Number of all participants
Yes	28	69	0,4444	0,4207	0,00056	0,00000248
Rather yes than no	23	76	0,3651	0,4634	0,00967	0,00004260
Rather no than yes	9	15	0,1429	0,0915	0,00264	0,00001164
No	3	4	0,0476	0,0244	0,00054	0,00000238
Total	63	164				0,00005909

Empirical significance/value 0,610498839

Critical significance/value (a=0,05) 7,814727903

Critical significance/value (a=0,01) 11,34486673

**No statistically significant differences**

Source: own studies

During the analysis of research results, the following was also conducted:

**1. The comparison of the ratios of academic teachers' and students' competences profiles according to Pearson's X<sup>2</sup> criteria** (for each profile separately).

**No statistically significant differences**

In all cases, students and lecturers equally evaluate the competences of academic teachers (the obtained empirical values are lower than critical values).

**2. The comparison of teachers' and students' profiles according to Fisher's criterion** (separately for each profile in the answer "yes", which is treated by us as an indicator of teachers' readiness for change and a manifestation of their firm attitude).

THE COMPARISON OF THE RATIOS  
IN THE VOCATIONAL-PEDAGOGICAL PROFILE  
OF ACADEMIC TEACHERS AND STUDENTS  
ACCORDING TO FISHER'S CRITERION

Groups	Effect, %	No effect, %
Teachers	33,3	66,7
Students	43,5	56,5

Source: own studies

The empirical value of the criterion is 1,485 and the critical one is 1,64 — thus, there is no difference between teachers and students (as regards vocational and pedagogical competences).

THE COMPARISON OF THE RATIOS  
IN THE SOCIO-PERSONAL PROFILE  
OF ACADEMIC TEACHERS AND STUDENTS  
ACCORDING TO FISHER'S CRITERION

Groups	Effect, %	No effect, %
Teachers	65,7	34,3
Students	60,8	39,2

Source: own studies

The empirical value of the criterion is 0,714 and the critical one is 1,64 — thus, there is no difference between teachers and students.

THE COMPARISON OF TEACHERS'  
AND STUDENTS' PROFILES ACCORDING  
TO FISHER'S CRITERION

Groups	Effect, %	No effect, %
Teachers	44,7	55,3
Students	41,8	58,2

Source: own studies

The empirical value of the criterion is 4,417 and the critical one is 1,64 — therefore, **there is no difference between teachers and students.**

**3. Average value of the components of competence profiles:**

The **vocational-pedagogical** profile comprises the following:

1. Innovative (No 9, 13);
2. Professional self-improvement (No 1, 5, 14);
3. Digital (No 2, 3, 7);
4. Communication and interactive (No 4, 10);
5. Management competences (No 6, 8, 11, 12).

The **socio-personal** profile comprises the following:

1. Sociocultural (No 18, 19, 22, 25);
2. Professional and personal responsibility (No 15, 20, 26);
3. Leadership (No 17, 21, 24);
4. Citizen competences (No 16, 23).

The **scientific** profile comprises the following:

1. Research No 27, 29);
2. International collaboration (No 30, 31, 33);
3. Scientific PR (No 36, 37);
4. Methodological (No 28, 32, 34);
5. Academic honesty-related competences (No 35).

While analysing the current system changes and the reform of higher education, it is hard not to refer to the competences of academic teachers. The analysis of qualifications and key competences indicates the lack of significant divergence between the declarations of students and academic teachers. Both groups notice the significance of competences in each profile and the need of developing them. Therefore, what should be developed is the system of preparing the scientific-didactic staff. This need ought to be taken into account in the reform of higher education, which is currently being implemented, and the planned changes, especially in the context of uniform five-years studies.

The vocational-pedagogical profile should be based on innovative curricula aimed at self-improvement of academic teachers, enhanced by motivational systems. These competences need to be developed also in the field of applying new technologies and using them at work. What seems important as well is preparing academic staff for the use of didactic aids and for developing their own communication competences, especially in the interactive dimension. Due significance should be attributed also to managing the own time and to appropriate use of these competences in work with students.

The socio-personal profile of academic teachers would develop in the best way on the basis of planned classes within the curricula of pedagogical studies which would support their socio-cultural competences. Academic curricula should also enhance the development of professional, personal, and civil responsibility. Currently, leadership competences are still insufficiently developed. There is no appropriate teacher training in this field at the level of primary and secondary school, neither in higher education, where it seems indispensable.

The scientific profile seems to be represented the most in the suggested changes in higher education. It comprises competences associated with conducting research, international collaboration, popularization of science, methodology, as well as the important issues of professional ethics and honesty. Therefore, it seems highly recommended: to continue the development of scientific exchange platforms, to introduce transparent promotion procedures, research financing and support programmes for individual and team studies.

Thus, the recommendation should pertain to consistent planning of the changes in curricula, courses, the development and divisions of scientific disciplines, as well as the institutional evolution aimed at raising the competences of academic teachers in all the three profiles. This will not be possible without the changes in teaching methods and academic curricula, without trainee internships as parts of the curriculum, without creating developmental pathways for young academic staff with proper mentor support system and financial and organizational stimulation. Due significance should be also paid to the changes and improvements of the competences of already professionally active academic staff who do not fulfil the requirements of contemporary university. Introducing the period assessment system, not only evaluation questionnaires conducted by students, and the programmes of research and didactic training are indispensable.

The obtained research results show that the competences presented in the three discussed profiles are highly valued by both academic staff and students. However, they require constant raising in order to step further from the level of declarations or expectations (often different than the reality) to the stage of their professional applications. This has been and currently is facilitated within various projects, supported by outer resources from EU or national projects. Yet, our recommendations promote making the changes and support for the development of academic teachers' competences within all the three profiles an element of academic curricula and system organizational-institutional reforms — not only incidental implementation of projects. Without certain continuity and permanence in this scope, it will be difficult to achieve the desired change — increased competences of academic staff, and in turn better quality of educating students and conducting scientific research.

## DEVELOPMENT OF THE COMPETENCES OF ACADEMIC STAFF IN SLOVAKIA

The topic of professional competences has resonated in Slovak legislation as well as in particular scientific disciplines since the beginning of 21<sup>st</sup> century. This tendency concerned all professions requiring specific unsubstitutable proficiency and requisite qualification. Individual professions have started the transformation process of professional requirements on professional members in accordance with the requisites of the European Union in order to unify professional standards in connection with the accession of Slovakia to the European Union on May 1<sup>st</sup>, 2004. However, the processes of legislation changes were in progress also during the transition period. A fundamental change in professional requirements was a formulation of professional standards not only in the form of qualification requirements but also by formulating professional competence profile as binding standard denoting the condition of entry and pursuit of profession. Simultaneously, in the teaching profession the legislative support was devoted to the continual lifelong development as a demand for maintaining the professional condition. There were two different approaches to formulation of professional standards in international contexts: 1. academic-research and 2. legislative-executive. The first was applied in the way of professional research (professiography) and its comparison with the current requirements regarding the science development and the knowledge of needs of practice. The second approach consisted of the adoption of statutory regulations respecting the European qualifications framework (EQF) by ministry management. It should be noted that in some professions the research approach was not applied. This led to a certain disruption between the declared requirements and reality

(professional status, number of experts meeting the requirements, professional expertise, balance between the reality and the declared requirements). Thus, we want to express that along with the need of international unification of legislative and professional requirements on professional competences, the national traditions and specifics must be respected.

A particular example of well-prepared standardization in Slovakia were teaching professions and the preparation of Act on pedagogical employees No. 317/2009 Coll. which was built on a rigorous profессиographic research (Kasáčová, 2011) in co-ordination with the preparation of law and related legislation (including transitional provisions) as well as on public discussion. The act is generally valid regulation including the professional competence standard for all teaching positions except for academic teachers. This group of educators is legislatively bound by the Act on universities No. 131/2002 Coll. from February 21<sup>st</sup>, 2002 that has been supplemented by other laws.

Currently, there is an intense discussion about the amendment of the Act. One of the serious disadvantages (caused by the time of its origin) is that the Act apart from other detailed parts includes only brief formulation of rights and duties of teachers. Moreover, the modern view of professional competences is completely absent. However, it is due to the time when the Act on pedagogical employees No. 131/2002 Coll. was released, when the trend of requirements for professional competences did not resonate.

The recent effort to apply a *competence based access* by the academic teachers is in charge of individual universities which in the context of growing competition consider the quality in all dimensions to be of utmost importance.

Presently, there are 20 public schools, 3 state schools and 12 private schools of higher education in Slovakia. Due to this fact it is evident that the high competition among them raises mostly because of the relation to the decreasing student population if we state that the Slovak population is 5.450 million. In comparable countries considering the population rate there are 5–10 universities (Slovenia, Finland, Netherlands, Belgium). There are 14 134 academic teachers at Slovak universities.<sup>1</sup> Also from the perspective of this number, it has to be stated that the research carried out within the project of international cooperation has its limitations, as we studied only small number of academic teachers and students. Therefore, it should be viewed as a pilot study although a similar research was carried out in Slovakia in 2014 (Blašková et al., 2014). Slovak authors published theoretical and empirical investigations based on international basis. These were originally formulated according to the project DEQUA (Development of culture quality at the University of Žilina based on European standards of higher education) in the following structure (Blašková et al., 2014, p. 459):

- Moral and ethical competence
- Technical (expert) competence
- Scientific competence
- Acclaimed author's competence
- Excellent teaching competence
- Role Model Competence
- Mature personality competence
- Critical thinking competence
- Communication competence
- Motivation competence

The authors assessed the views on these competences at larger sample of students (439 males and 247 females), looking for both positive and negative characteristics. They created a competence model consisting of 8 categories in which they identified both polarities of performance that can be observed and consecutively revalidated by behavioural indicators (Blašková et al., 2014, p. 463-464). It is regrettable that this model is only theoretically applied and the ministry prefers evaluation based solely on outputs and performance.

Universities demonstrate their autonomy and autoregulation within the possibilities of internal

evaluation (self-evaluation), which, according to W. A. Fischer and M. Schratz (1997), has to be in direct and inviolable relation to external evaluation. This represents the commitment of public university to state for its educational and scientific activities.

There exist three levels of targeting the processes of quality assessment in tertiary education: *institutional*, *processual* and *personal*. As we have mentioned, the quality of academic teachers is a key issue for the development and sustainability of universities' quality. Each university forms its own internal quality policy both for its own needs and for the purposes of accreditation process (held once every 6 years). The internal policy is intended to ensure the sustainability of quality also between the periods of accreditation of higher education institutions. *Policy of educational quality of Matej Bel University* reflects a tendency of university to achieving quality in all processes. The policy states what the university wants to achieve, how the organisation of quality system and principles of quality are constituted and who is responsible for its implementation. In quality policy, the relationship between university education and research activities and organization of educational quality system as well as the responsibility for the accomplishment of quality and the involvement of students and other stakeholders in educational quality system are declared. Therefore, the key implementer of quality and its development is a teacher who deals with personal dimension of quality assessment and influences the processes (educational and scientific) and the quality of the whole institution — university. It should be emphasized that the performance of every teacher is an important determinant for the creation of financial budget of university, especially according to the scientific performance, as the pedagogical performance is generalized indeed. Within the assessment and evaluation processes, the pedagogical performance consists of the number of lessons taught and partly of textbook creation. Pedagogical competences have not been adequately monitored and included in the evaluation yet. Also according to Koslowski (2006), the assessment of academics (university teachers) is more based on their reputation, a number of quality publications and the number of the disciplines they teach, rather than on their pedagogical competences, i.e. The quality of their teaching. The quality of higher education is

<sup>1</sup> <https://www.portalvs.sk/regzam/stats/?date=2018-06-30> (31.6.2018)

mostly evaluated from the point of view of staff — the teachers, the opinions of students and external quality control agencies are not taken into account that much. Arnon and Reichel (2007) have shown that students perceive the personal qualities and professional knowledge as the most important characteristics of ideal teachers. Personal qualities include general personal characteristics, kindness, leadership of students and attitude towards the profession. Professional qualities consist of the subject knowledge and didactic knowledge. Moreover, the students stated that they see other qualities, such as general knowledge, technological skills and the social status of a teacher as less important.

In general, the precautions of quality sustainability can be categorized as *normative, organizational, personal, didactic, technological* and others. However, the core of the problem of academic institutions' evaluation lays always in the personal level. This means that the teacher/researcher is responsible for the results as well as for the improvement. From the *normative* point of view, the teacher has to meet the qualification requirements (PhD, associate professor, professor). The academic rank is the result of teacher's scientific work, however, it does not predicate on the teacher's pedagogical competences. Up to date, the most important measure of academic teacher quality is the control of publications and research outcomes that is annually reviewed by the internal mechanism which is one of the criteria of motivational incentive pay system. The state budget is reallocated among universities also according to the performances in scientific outcomes (publications, projects, international activities). The university uses analogous model to redistribute the financial budget among faculties and then the variable wage component is reflected in the rewards of individuals. It can be clearly stated, that despite the declaration of their importance, the academic teachers' competences are not fundamentally monitored. Although, there has been regular monitoring of students' views on teachers and study programs since 2009. Students have the opportunity to express their opinion on the quality of study program and individual teachers either in print or via the Academic Information System (AIS). Statements aimed at study program investigate a student's satisfaction with the study program. Individual items review the approach of staff to students, future perspective and the ideas for improvement. Within the evaluation of teacher

using anonymous questionnaire student assesses: clarity of the requirements and criteria, respect to the scope and time of lessons, comprehensibility of lectures, continuous monitoring of student's level and feedback, the ability to motivate and stimulate the interest in the study, the ability to create a positive learning climate, openness and helpfulness and objectivity of assessment.

In addition, a University Pedagogy project aimed at the development of pedagogical and social competences of teacher at Matej Bel University is worth mentioning. Within the project held in 2010, the teachers could improve their competences according to their self-reflection in individual courses: ICT Skills in Teaching, English Language for Higher Education and Presentation, Adult Education, Social Skills, Personal Management and others.

Particularly beneficial for the development of soft skills of teachers and PhD students was a project supervised by prof. Hanesová (2015): Mobility Support for Science, Research and Education at Matej Bel University. ITMS project code 26110230082. Activities 1.3 Education-research-evaluation — expert prof. Seppo Saari; 1.4. Preparation of Future Teachers of Primary Education for the English Language Teaching — expert prof. Judith Kovács.

Matej Bel University participated also in OECD project Innovative Teaching for Effective Learning (ITEL) in which teachers' knowledge and its connectedness to core competences needed for teaching in the 21<sup>st</sup> century was inspected. Data collected from academic teachers were aimed at their research activities, professional collaboration and their characteristics involving teaching methods and student agency (Tomengová et al., 2017, Sonmark et al., 2017).

Therefore, we welcomed the opportunity to participate in research within Visegrad Fund project and in the international team (Ukraine, Czech Republic, Slovak Republic, Poland), investigate and compare the opinions of academic teachers and students on the importance of competences of academic teachers. These opinions were first monitored in 2018 using e-questionnaires for students and teachers. In this text we present research findings from a national perspective. In the following study we will compare the Slovak sample with the samples from other countries involved in the international research.

The research data in the Slovak cohort of the research sample was collected in the period

of January — February 2018. The research sample consisted of 67 academic teachers and 82 students.

The study focused on the following variables in teachers: gender, qualification, age and length of teaching experience. Almost three thirds of teacher respondents were females (73,1 % versus 26,9 % males), this ratio corresponds to the academic staff composition. Among the teacher respondents there were 15 professors (22,4 %), 14 associate professors (20,9 %) and 38 research assistants (56,7 %). Considering age, teachers were almost equally distributed

in three age groups: 25-40 years — 24 persons (35,8 %), 41-55 years — 21 persons (31,3 %), 56-70 years — 22 persons (32,8 %). This composition is close to the actual distribution of qualification degrees among academics. With regards to pedagogical experience, the teachers were distributed as follows: up to 10 years — 17 persons (25,4 %), 10-20 years — 21 persons (31,3 %), over 20 years — 29 persons (43,3 %). Distributions of teacher respondents by gender, qualification, age and length of teaching experience are presented in *Figures 1-4*.

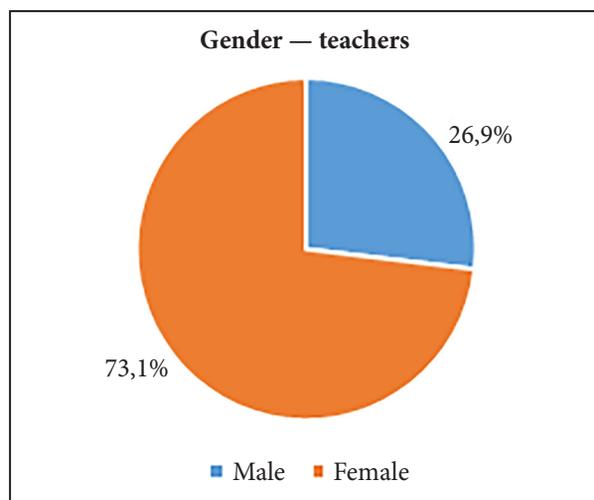


Figure 1: Distribution of teachers by gender

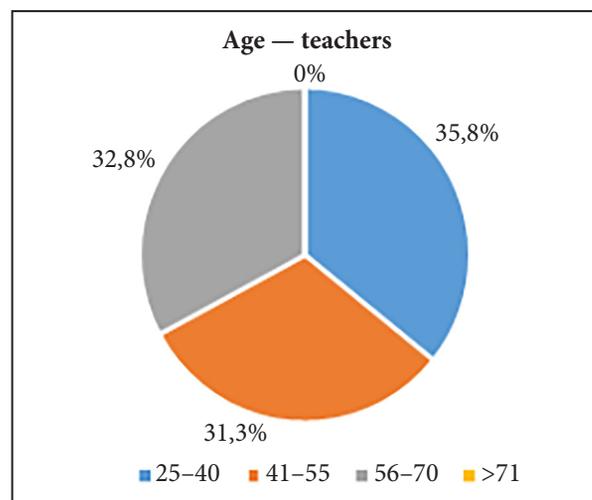


Figure 3: Distribution of teachers by age

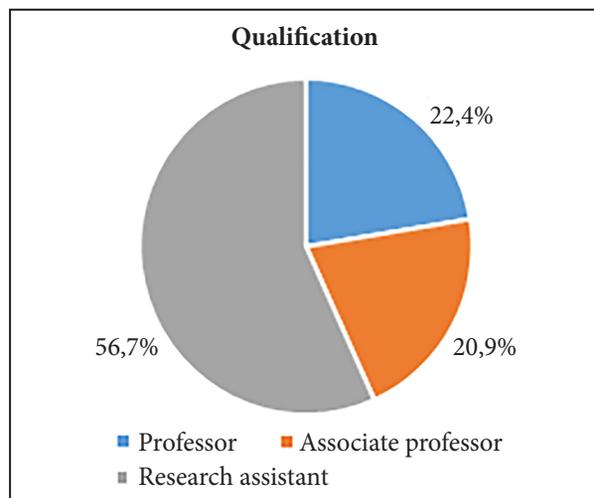


Figure 2: Distribution of teachers by qualification

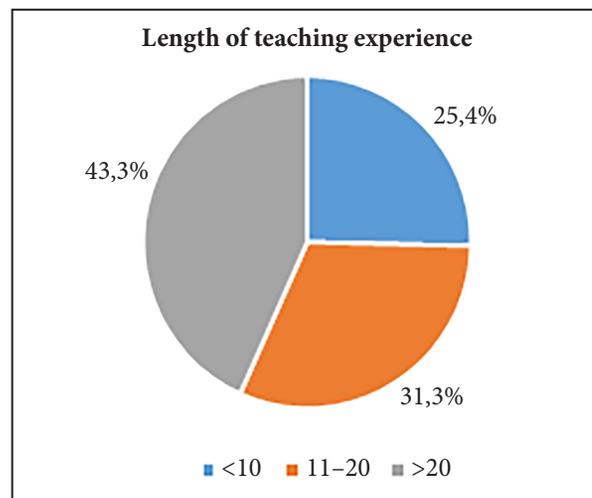


Figure 4: Distribution of teachers by the length of teaching experience

In students' group of respondents the study focused on gender and year of study. Almost all students who participated in the study were females (79 students — 96,3 %). With regards to year of study, the students were distributed as follows:

Year 1 — 4 students (4,9 %), Year 2 — 32 students (39,0 %), Year 3 — 7 students (8,5 %), Year 4 — 36 students (43,9 %), Year 5 — 3 students (3,7 %). Distributions of student respondents by gender and year of study are presented in *Figures 5-6*.

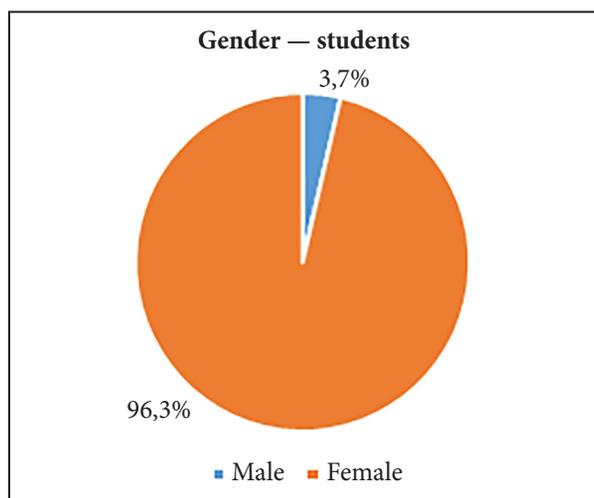


Figure 5: Distribution of students by gender

Before describing the research findings and comparisons of teachers' and students' opinions, we will present several related phenomena and reflections of the investigated persons which could possibly influence partial findings.

We addressed the participants of the survey by the electronic version of a questionnaire in which we respected the English version of the common Ukraine-Czech-Polish-Slovak version of research tool. This used a term high school teacher which is not usually used in Slovakia as it reminds of secondary school teachers rather than of academic teachers.

Time and form of data collection coincided with the period when the university community was overwhelmed by various electronic inquiries and questionnaires which caused a low rate of willingness to respond to another research by both teachers and students.

One of the methodological limitations of research tool is that the questionnaire did not investigate the real situation but only opinion of respondents on competences of academic teachers. Another limitation is that the research tool did not deal with professional focus of students and teachers. Moreover, in some statements there were more variables included. Besides that, respondents could not express their neutral opinion. Another momentum that was reflected several times, is the degree of agreement and disagreement with individual items. One respondent wrote: everything is important, but how is it possible that academic teacher is so ideal? This resulted in avoidance of negative side of scale by both teachers and students and production of high amount of positive answers.

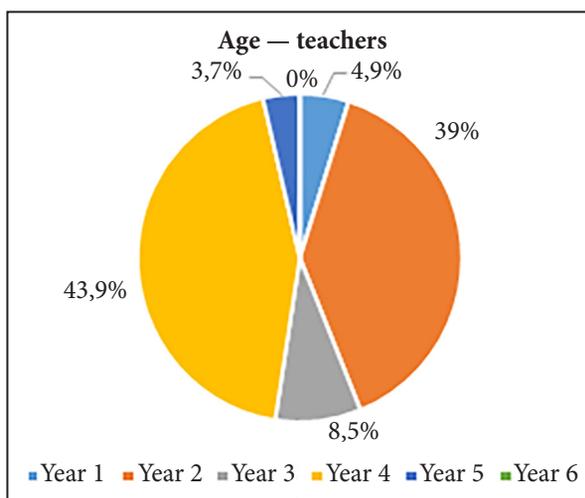


Figure 6: Distribution of students by year of study

In this section we present the results of the survey for each profile (professional-pedagogical, social-personal, academic) separately. At first, results of statistical tests are presented for every profile. Consequently, descriptive analysis with regard to the individual items in questionnaire and their content is included. The opinions of respondents are graphically represented within established clusters of academic teacher's competences. In order to satisfy the assumptions of  $\chi^2$  test of independence, the answers claiming *More no than yes* and *No* are united in one category *No*.

### **Professional-pedagogical profile of academic teacher**

A chi-square test of independence was conducted between position and opinion on academic teacher's competences within professional-pedagogical profile. All expected cell frequencies were greater than five. There was no statistically significant association between position and opinion on academic teacher's competences within professional-pedagogical profile,  $\chi^2(2) = 0,040$ ,  $p = 0,980$ . The association was small (Cramer's  $V = 0,016$ ).

Moreover, a Mann-Whitney U test was run to determine if there were differences in opinions about a university teacher's professional-pedagogical competences between teachers and students. Although no statistically significant difference was found between opinions of teachers and students in general, there were statistically significant differences in several items. Therefore, we will present partial results for each cluster of competences in professional-pedagogical profile.

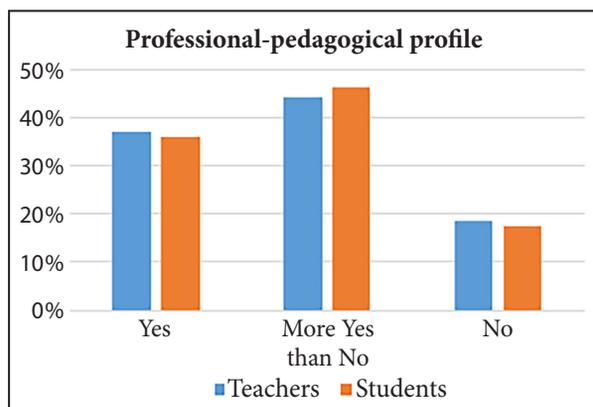


Figure 7: Comparison of teachers' and students' opinions on the importance of professional-pedagogical competences

Table 1

CROSSTABULATION OF POSITION AND OPINION ON PROFESSIONAL-PEDAGOGICAL PROFILE

		Position	
		Teacher	Student
Opinion	Yes	25	30
	Rather Yes than No	30	38
	No	12	14

No statistically significant differences were found between opinions of teachers and students on flexibility in professional activity and positive attitudes to reforms. Both teachers and students recognize flexibility as very important in the work of academic teacher. Almost third of teachers think that positive attitude to reforms is not important for academic teachers (see Figure 8). However, this phenomenon must be seen in the context of a permanent change that teachers have felt in recent times as a pressure that reduces their capacities to work hard on scientific research intentions. Nevertheless, the society is permanently changing and similarly the situation within the higher education is dynamic. Students seems to be more aware of permanent changes and the need to adapt to them. Though, it is transparent that it is not unambiguous conviction, as the answer *More yes than no* is predominant.

No statistically significant difference was found between opinions of teachers and students on constant improvement. Both teachers and students consider the permanent improvement to be essential for the work of academic teachers. Teachers consider permanent improvement to be one of the most important factors in their work as the highest number of teachers chose the answer *Yes* in this item within the professional-pedagogical profile (see Figure 9).

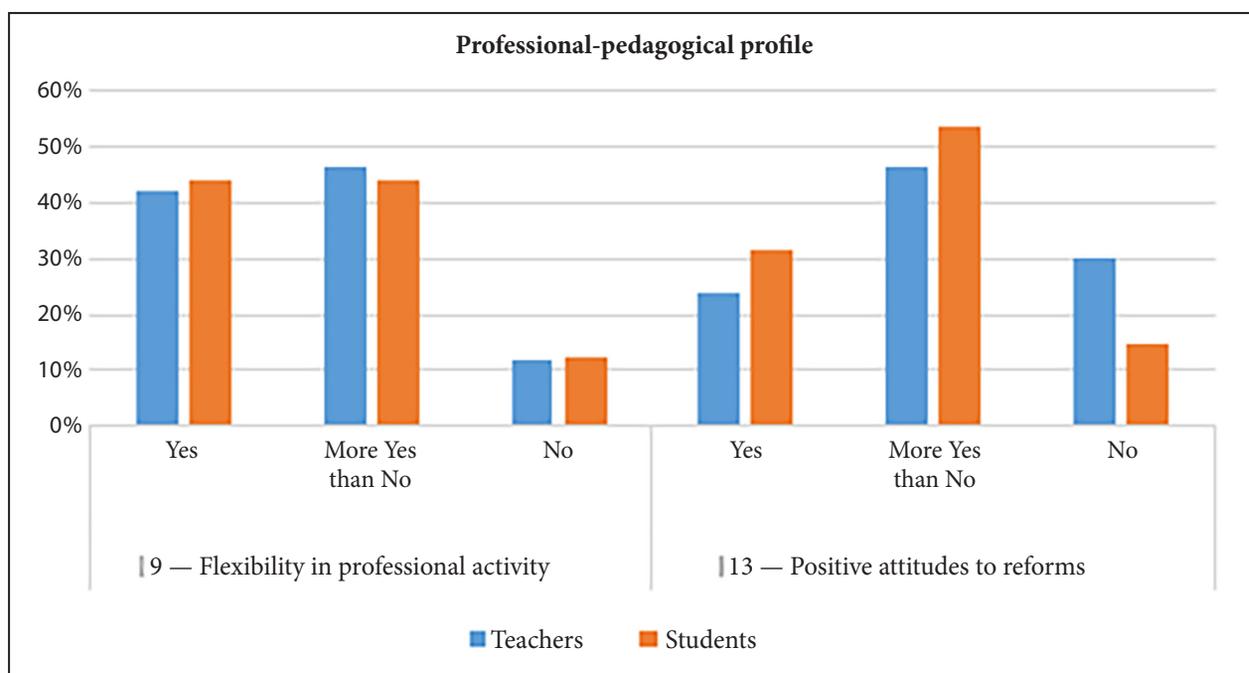


Figure 8: Comparison of teachers' and students' opinions on the importance of relation to reform

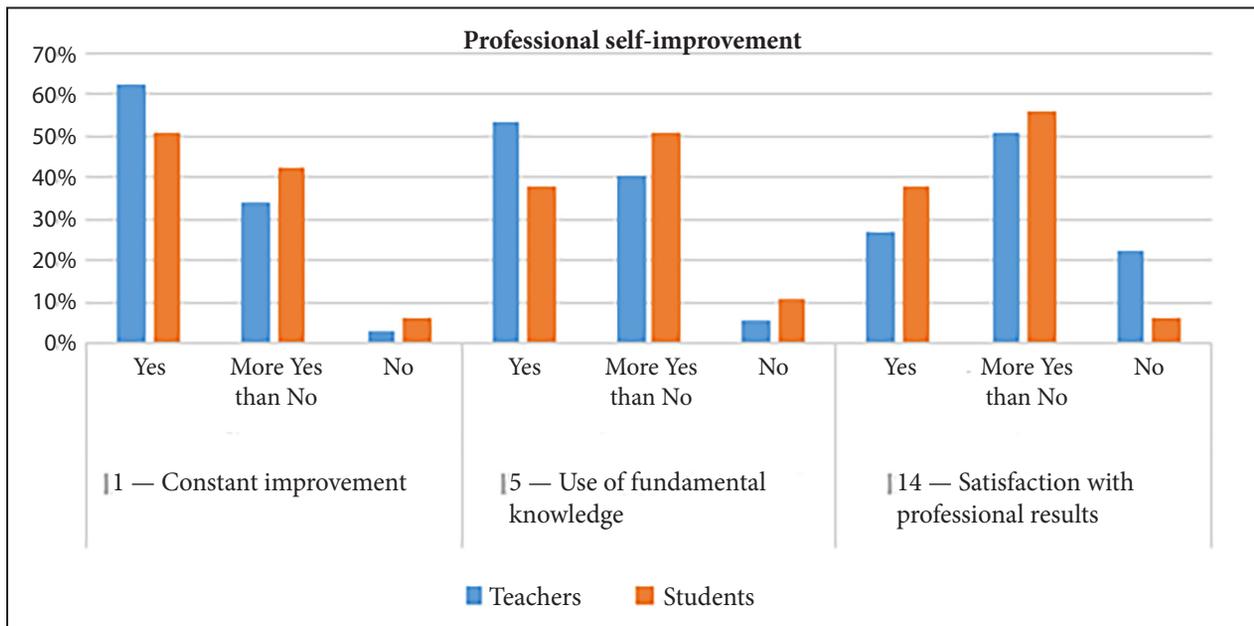


Figure 9: Comparison of teachers' and students' opinions on the importance of professional self-improvement

Moreover, the conducted Mann-Whitney U test for teachers and students confirmed statistically significant differences between opinions of teachers and students on the use of fundamental knowledge and permanent updates of the content ( $Z = -2,023$ ;  $p = 0,043$ ) and the satisfaction with professional results ( $Z = -2,326$ ;  $p = 0,020$ ). Teachers considered the ability to use fundamental knowledge in educational process, the achievement of modern science and constant updates of the content of education courses to be more important than students. On the other hand, students considered the satisfaction with the results of professional activity to be more important than teachers. They think that it is crucial for academic teacher to be satisfied with the results of his/her professional activities. However, more than fifth of teachers do not see satisfaction with the results of their work to be important. Nevertheless, it cannot be misinterpreted in the sense that teachers do not consider the satisfaction with the results of their work as necessary. On the contrary, they realize the reality that the duties are more important than the feeling of satisfaction.

No statistically significant differences were found between opinions of teachers and students on the use of innovative learning technologies and creation of distance learning courses. Although both teachers and students consider the implementation of innovative technologies to be necessary for academic teacher, neither teachers nor students

see creation of distance learning as very important (see Figure 10). In the era of e-learning this is quite surprising. Also the correspondence between teachers and students is interesting. We suppose that this is caused by preference of personal contact between teacher and student in our conditions as the University emphasizes it in the quality policy.

The conducted Mann-Whitney U tests for the groups of teachers and students confirmed statistically significant differences in the declarations concerning the ability to work with information in global network based on critical analysis by the result  $Z = -2,664$ ;  $p = 0,008$ . Teachers think that critical analysis of information from global networks is relevant part of their work. Nonetheless, only quarter of students think that it is of utmost importance and quarter of students do not see critical analysis as needed in the work of academic teacher. In this case, the research should be complemented by a qualitative analysis of the concept of critical analysis.

There were no statistically significant differences found between opinions of teacher and students on the use of various means of communication and interactive coordination or organization of group and collective activities. Both teachers and students recognize the use of various means of communication as important. Students express their conviction more clearly than teachers do. However, almost fifth of teachers do not consider interactive coordination or organization of group

and collective activities to be essential in the work of academic teacher (see Figure 11 ). We think that more students realize that the ability to work in team is important in their future work as the ability to cooperate is nowadays one of the mostly required

skills. Thus, students expressed their opinion that academic teachers should implement cooperative learning within the education.

No statistically significant differences were found between opinions of teachers and students

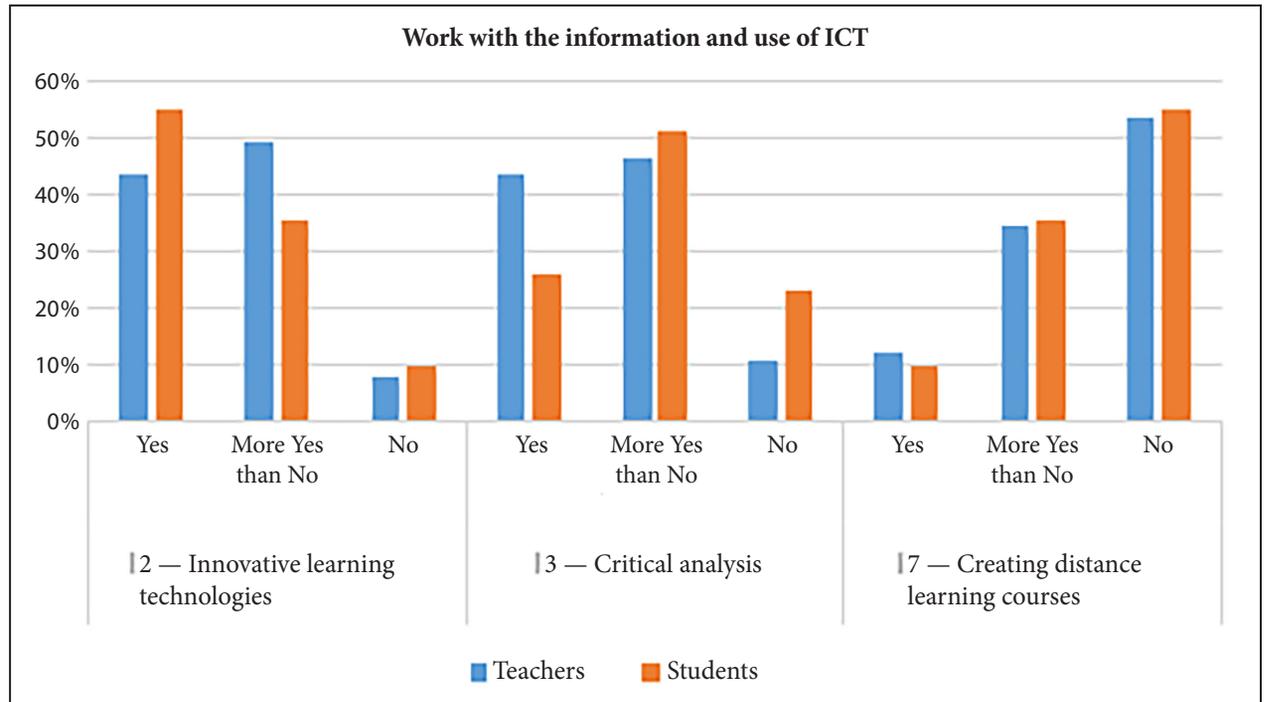


Figure 10: Comparison of teachers' and students' opinions on the importance of work with the information and use of ICT

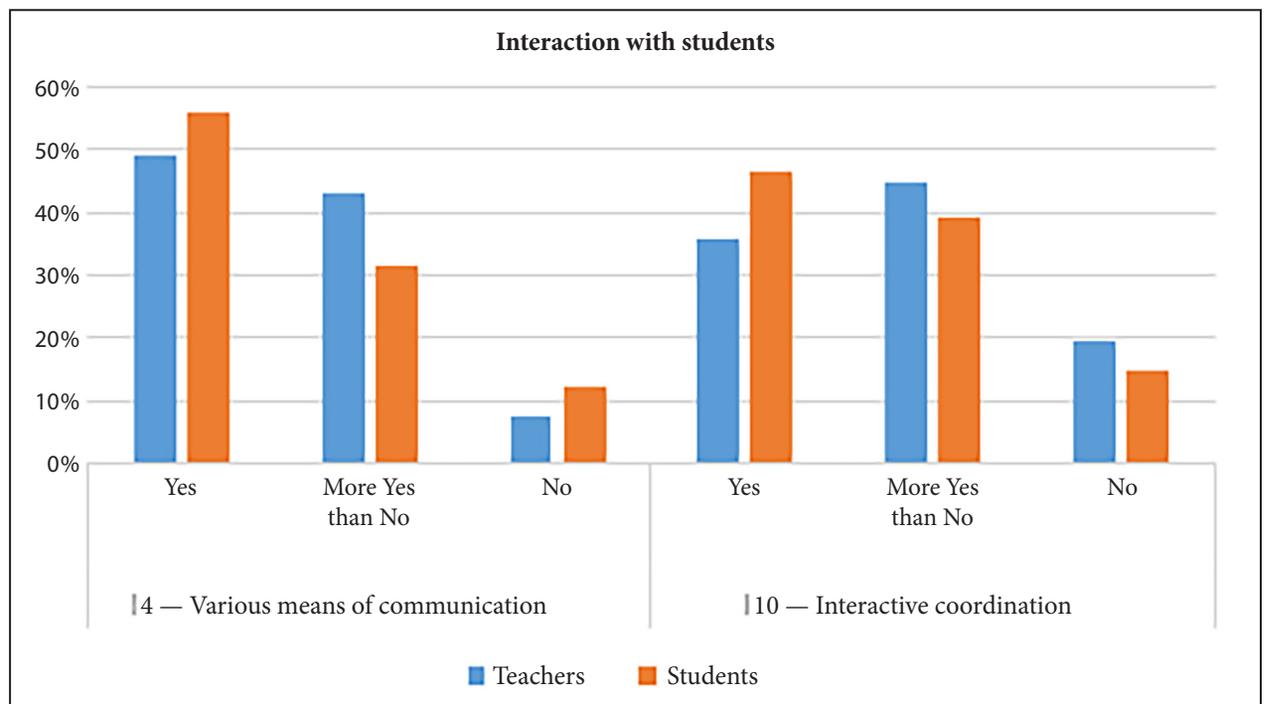


Figure 11: Comparison of teachers' and students' opinions on the importance of interaction with students

on the use of research based learning, the use of technology to manage students' self-study, the ability to set and achieve the didactic goals according to SMART technology and the ability to use different technologies to monitor educational outcomes. Teachers considered the ability to create an educational environment that contributes to cognitive activity of students and research based learning to be slightly more important than students. However, both teachers and students see research based learning as quite important educational tool. Nevertheless, more teachers consider it to be of utmost importance (see Figure 12).

Only third of teachers and students think that the use of technology to manage students' self-study is essential. Moreover, one fifth of teachers and students think that it is not important. Third of teachers are persuaded that the ability to set and achieve the didactic goals according to SMART technology is not necessary. Only quarter of teachers and students are convinced that the use of different technologies to monitor educational outcomes is definitely important. Similarly, quarter of teachers and students think that it is not important at all.

Although the overall results of the survey of opinions on the professional-pedagogical profile of academic teacher between teachers and students were not statistically significantly different, partial analyses showed that the views on some professional-pedagogical competences differ between teachers and students.

### Social-personal profile of academic teacher

A chi-square test of independence was conducted between position and opinion on academic teacher competences within social-personal profile. All expected cell frequencies were greater than five. There was no statistically significant association between position and opinion on academic teacher competences within social-personal profile,  $\chi^2(2) = 0,369$ ,  $p = 0,831$ . The association was small (Cramer's  $V = 0,050$ ).

Also within the social-personal profile a Mann-Whitney U test was run to determine if there were differences in opinions about a university teacher's competences between teachers and students. Even though no statistically significant difference was found between opinions of teachers and students in general, there were statistically significant differences in some items. Further, we present partial results for each cluster of competences in social-personal profile.

The conducted Mann-Whitney U tests for the groups of teachers and students confirmed statistically significant differences in the declarations concerning the ability to keep to the rules of professional ethics with all subjects of the educational process by the result  $Z = -2,546$ ;  $p = 0,011$ . Although teachers strongly consider observance of the ethical principles to be essential, students are not so strongly convinced that it is so important to follow them. The highest number of teachers claimed that

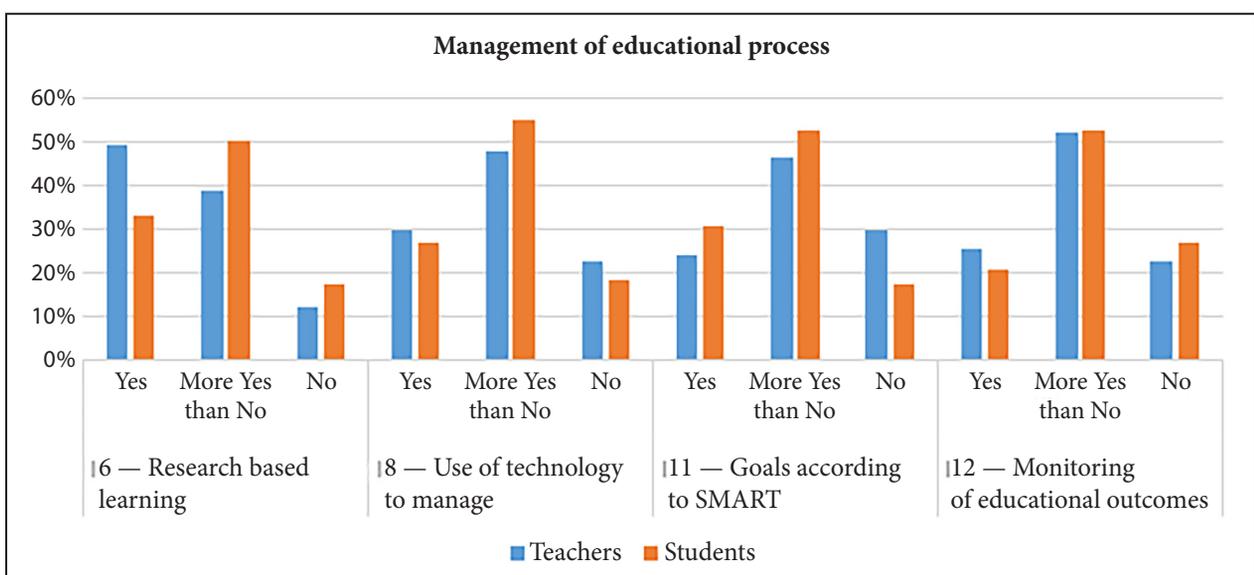


Figure 12: Comparison of teachers' and students' opinions on the importance of management of educational process

observance to the rules of professional ethics is very important. It is surprising that students do not attribute such high importance to this competence.

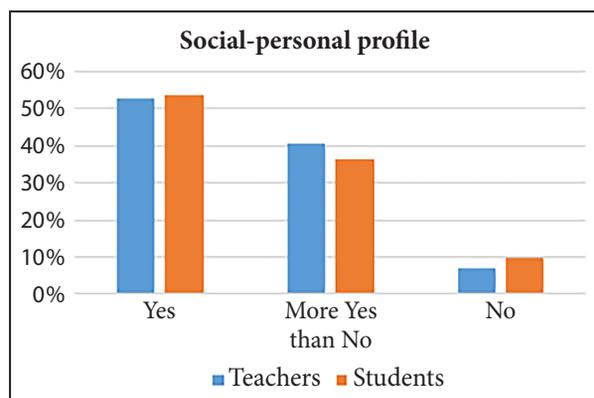


Figure 13: Comparison of teachers' and students' opinions on the importance of social-personal competences

No statistically significant differences were found between opinions of teachers and students on perceiving the younger generation as the generation with special values, restraining negative emotions and overcoming bad mood and encouraging tolerance to differences. Both students and teachers consider all these competences to be very important for academic teacher. However, more teachers than students are strongly persuaded that the younger generation should be perceived as a generation with special values and needs by academic teacher. On the other hand, students are more convinced that encouraging tolerance to differences is of utmost importance (see Figure 14).

The opinions of teachers and students on understanding the social significance and high responsibility of one's professional activities, openness to communication, aspiration to understanding and solving complex situations and coming to a decision and taking responsibility for success and failures in professional work were not statistically significantly different. The opinions of teachers and students are very similar, both groups are convinced that academic teacher should understand the social significance and her/his responsibility. Both teachers and students are persuaded that the openness to communication and complex situations' solving are very crucial for academic teachers. Moreover, almost all teachers think that the responsibility for success and failure is important for their work. However, some students claim that academic teachers do not have to be responsible for their success or failure (see Figure 15).

Table 2

CROSSTABULATION OF POSITION AND OPINION ON SOCIAL-PERSONAL PROFILE

		Position	
		Teacher	Student
Opinion	Yes	35	44
	Rather Yes than No	27	30
	No	5	8

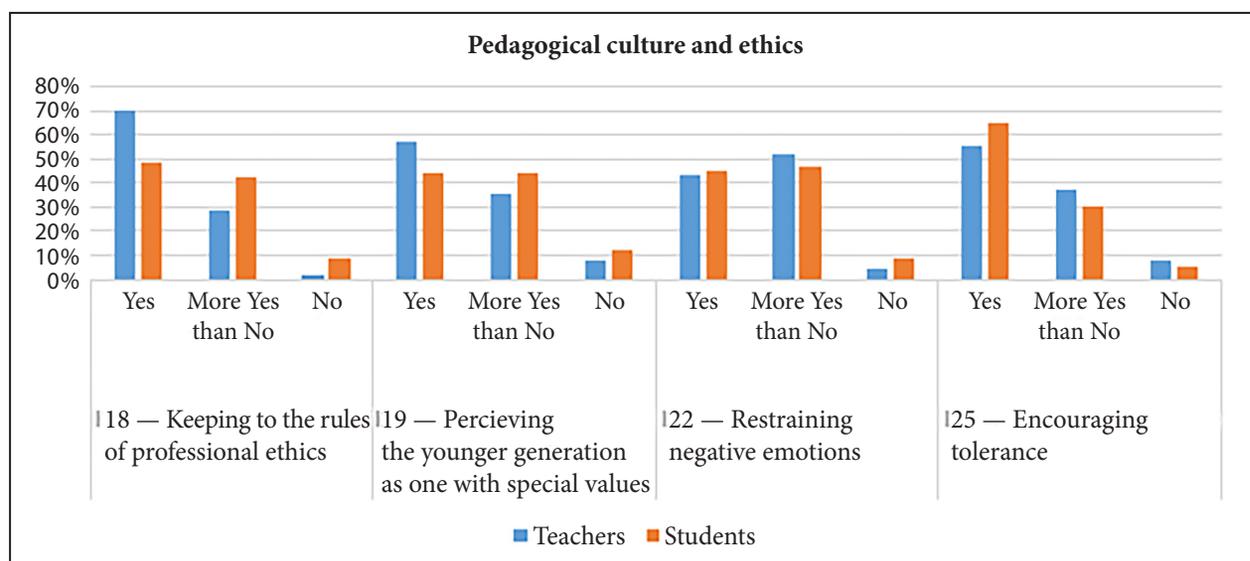


Figure 14: Comparison of teachers' and students' opinions on the importance of pedagogical culture and ethics

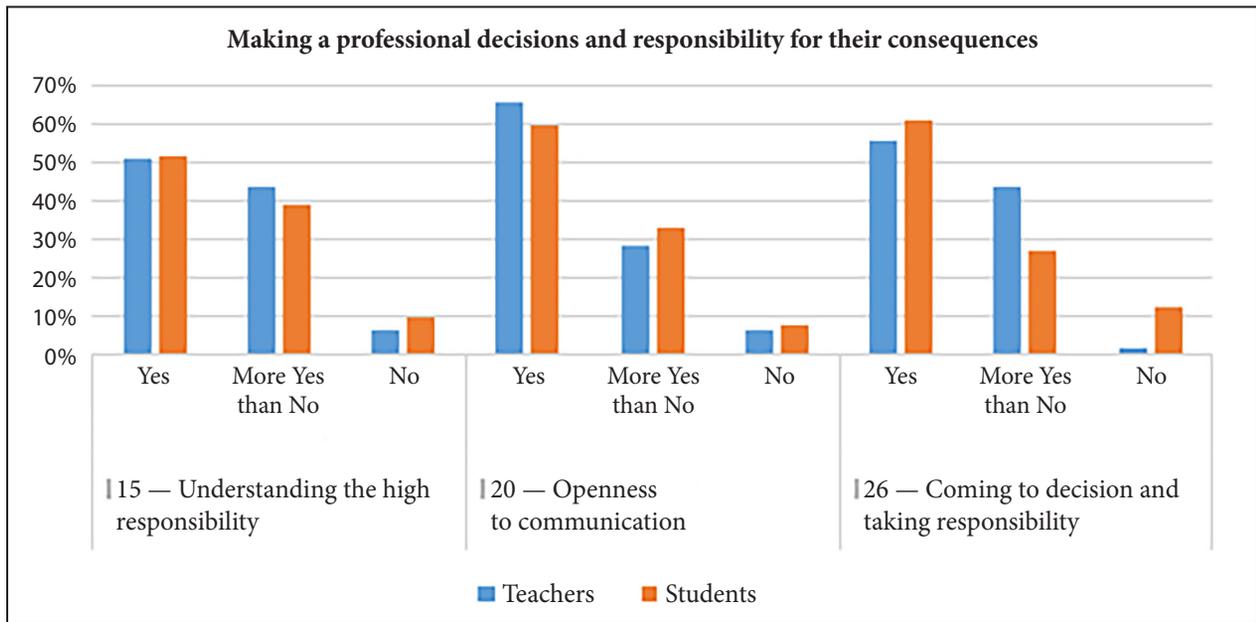


Figure 15: Comparison of teachers’ and students’ opinions on the importance of making a professional decisions and taking responsibility for their consequences

There were no statistically significant differences in opinions of teachers and students on providing leadership support for student youth, demonstrating a high level of general and professional culture, ability to present and stand up for own ideas as well as take part in a dialogue and discussion and giving students real opportunities for developing self-management and supporting youth initiatives. Most of the teachers think that academic teacher should support students and demonstrate a high level of general and

professional culture. Almost fifth of students do not consider such leadership to be important. Both teachers and students are convinced that presentation of own ideas and participation in a dialogue is one of the most necessary competences in the profile of academic teacher. Almost all teachers and students consider the self-management’s development of students to be the academic teacher’s responsibility. However, more students see it as the crucial competence of academic teacher (see Figure 16 ).

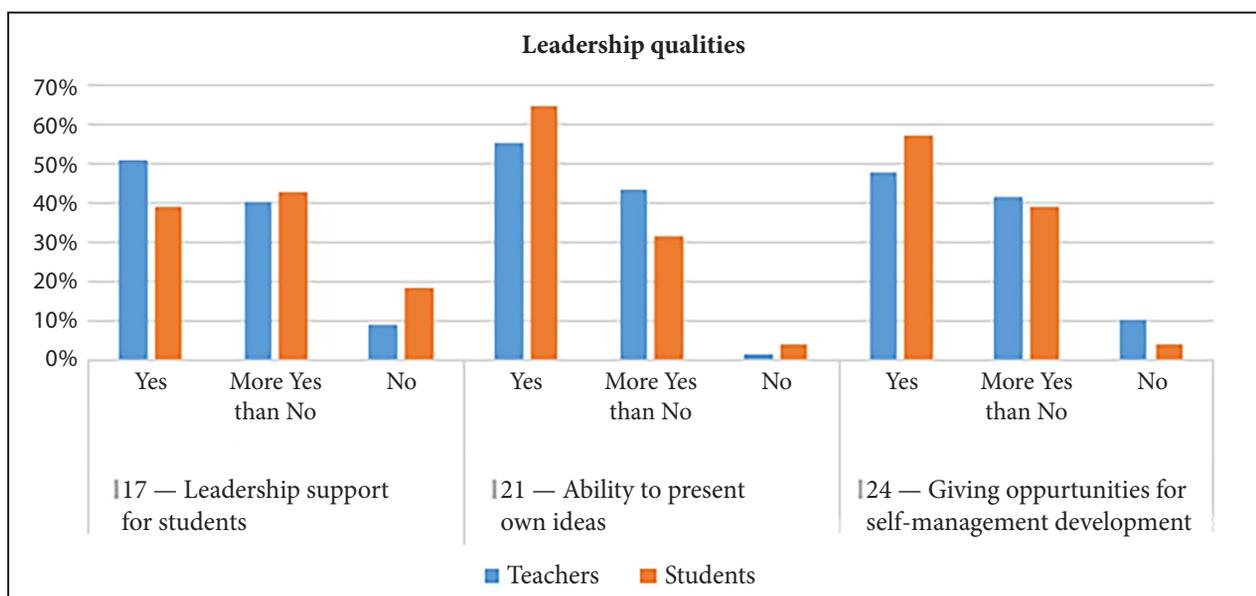


Figure 16: Comparison of teachers’ and students’ opinions on the importance of leadership qualities

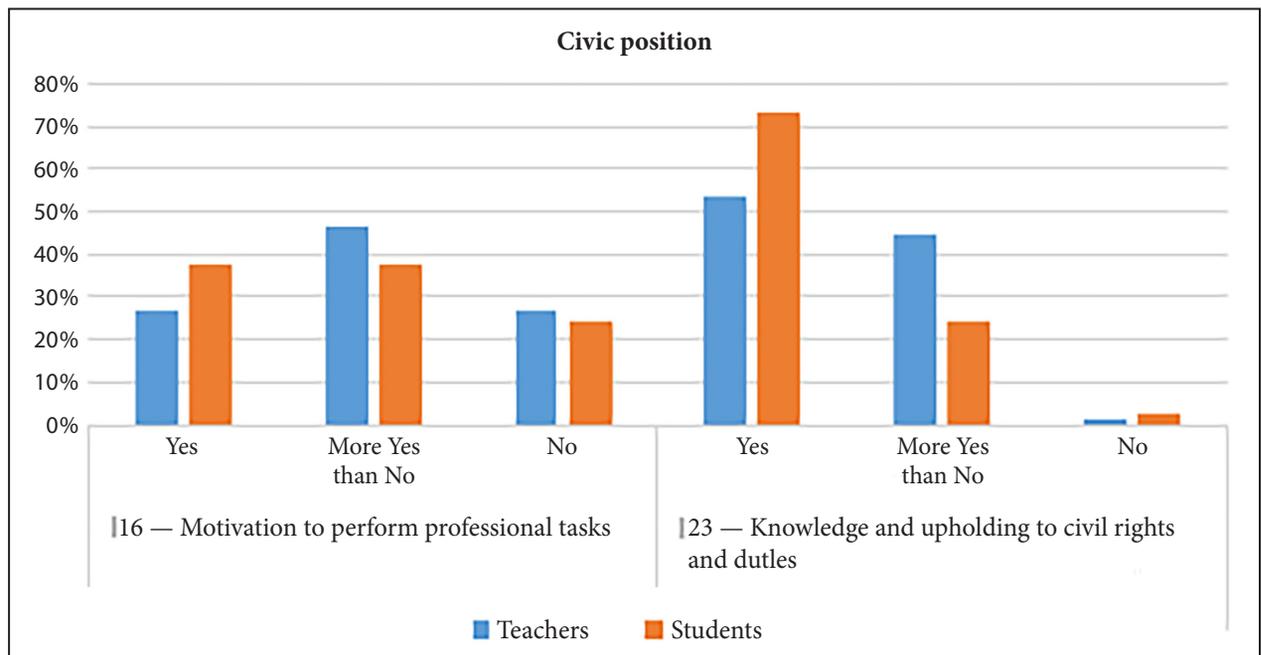


Figure 17: Comparison of teachers' and students' opinions on the importance of civic position of academic teacher

No statistically significant difference was found between opinions of teachers and students on a high motivation to perform professional tasks. We should be aware of the fact that approximately a quarter of students and teachers do not consider motivation to perform professional tasks to be important for academic teacher (see Figure 17).

The difference between opinions of teachers and students on knowledge of one's civil rights and duties and upholding to them was statistically significant ( $Z = -2,351$ ;  $p = 0,019$ ). Students considered the knowledge of civil rights and duties and upholding to them basing on valid laws to be more important than teachers. The highest number of students consider the awareness and application of civil rights to be of utmost importance for academic teacher.

**Academic profile of academic teacher**

A chi-square test of independence was conducted between position and opinion on academic teacher competences within academic profile. All expected cell frequencies were greater than five. There was no statistically significant association between position and opinion on academic teacher competences within academic profile,  $\chi^2(2) = 0,415$ ,  $p = 0,813$ . The association was small (Cramer's  $V = 0,053$ ).

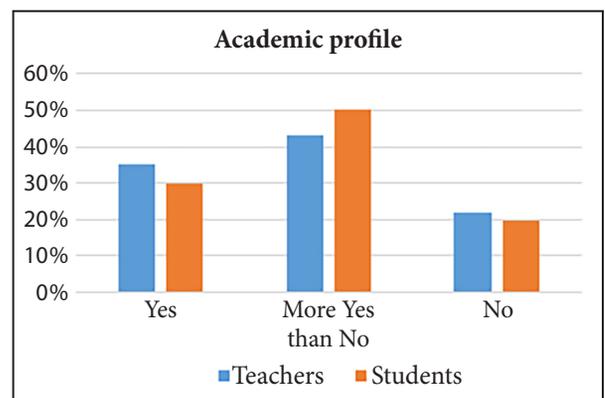


Figure 18: Comparison of teachers' and students' opinions on the importance of academic competences

Table 3

CROSSTABULATION OF POSITION AND OPINION ON ACADEMIC PROFILE

		Position	
		Teacher	Student
Opinion	Yes	35	44
	Rather Yes than No	27	30
	No	5	8

We also used a Mann-Whitney U test to determine whether there were differences in opinions about a university teacher's academic

competences between teachers and students. Although no statistically significant difference was found between opinions of teachers and students on academic competences as a whole, there were statistically significant differences in some items. Therefore, now we will present partial result for each cluster of competences in academic profile.

There were no statistically significant differences of opinions of teachers and students on combination of teaching and scientific activities, organization of student's studying process basing on research and organization of research groups on topical issues of science, participation in national and international projects. Both teachers and students agree that educational and scientific activities of academic teacher should be closely related. On the other hand, more than third of students and teachers do not think that participation in projects and organization of research groups is important for academic teacher. This competence, among all, seems to be the least important from the point of view of teachers and students (see *Figure 19*).

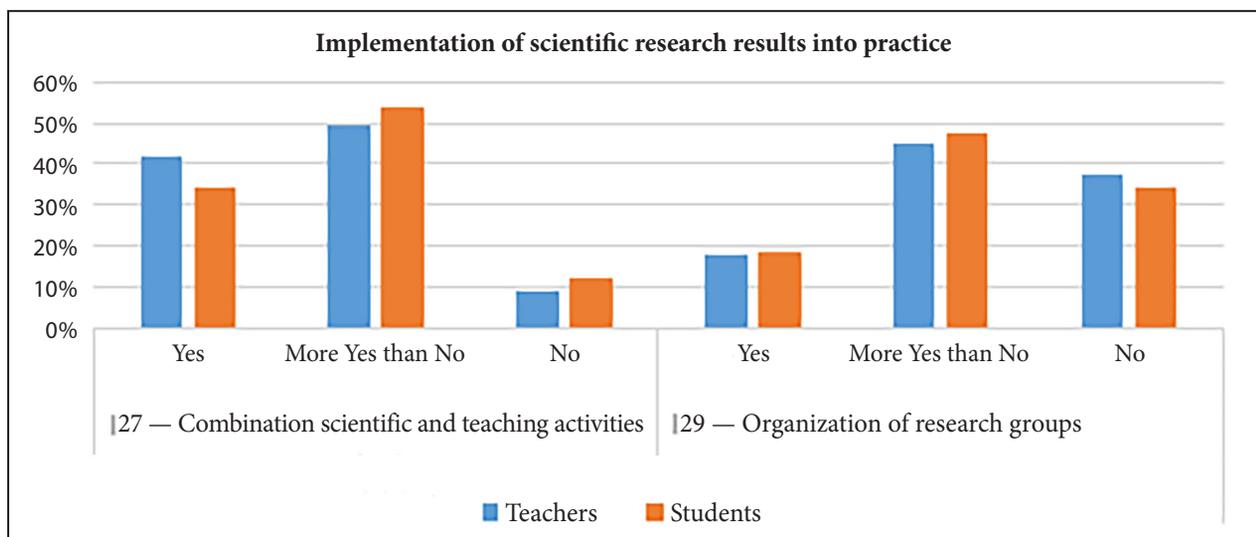
No statistically significant differences were found between opinions of teachers and students on participation in the main forms of internationalization of higher education and publishing the results of scientific research in scientometric publications. One fifth of students and teachers do not consider the ability to be involved in the main forms of higher education's internationalization to be important for academic teacher. Only third of students of teachers and students are persuaded that it is of utmost importance. Moreover, almost one third of teachers

and students believe that the ability to publish scientific articles in scientometric publication is very important (see *Figure 20*).

The difference between opinions of teachers and students on presentation of the results of scientific activities to international community was statistically significant ( $Z = -4,879$ ;  $p = 0,000$ ). Students do not recognize the importance of scientific results' presentation to international community as strongly as teachers do. More than third of them think it is not necessary. Overall, the greatest difference between the views on its importance among students and teachers was shown in this competence.

There were no statistically significant differences found between opinions of teachers and students on expertise in the relevant scientific field, conducting expert examinations, preparing reviews, leading a scientific school and promotion of the results of research using an e-portfolio. Most of the teachers and students consider the expertise of academic teacher to be needed in the work of academic teacher. Almost half of them are convinced that it is of the utmost importance. Almost one third of teachers do not see research results' promotion via e-portfolio as relevant competence for academic teacher. On the other hand, almost third of students and teachers think it is of utmost importance (see *Figure 21*).

The conducted Mann-Whitney U test for the groups of teachers and students confirmed statistically significant differences in the declarations concerning the proficiency in modern methodology and methodology of research in the field of higher education by the result  $Z = -2,684$ ;  $p = 0,007$ . More



*Figure 19:* Comparison of teachers' and students' opinions on the importance of implementation of scientific research results into practice

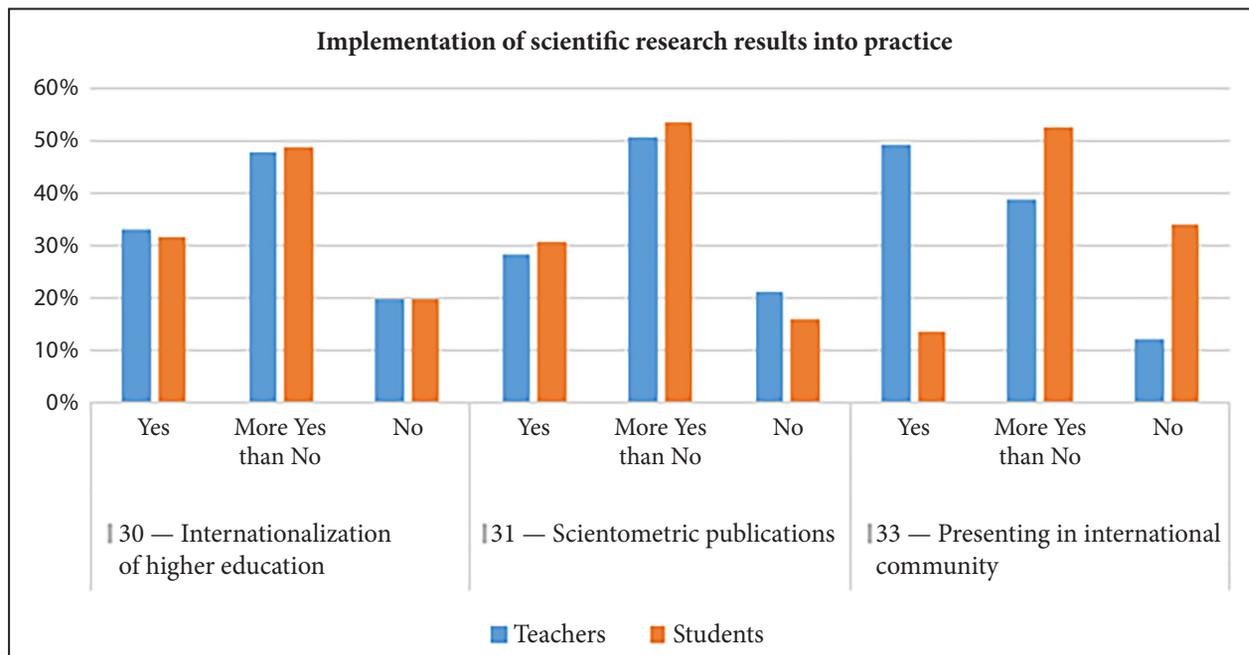


Figure 20: Comparison of teachers' and students' opinions on the importance of internationalization of education and science

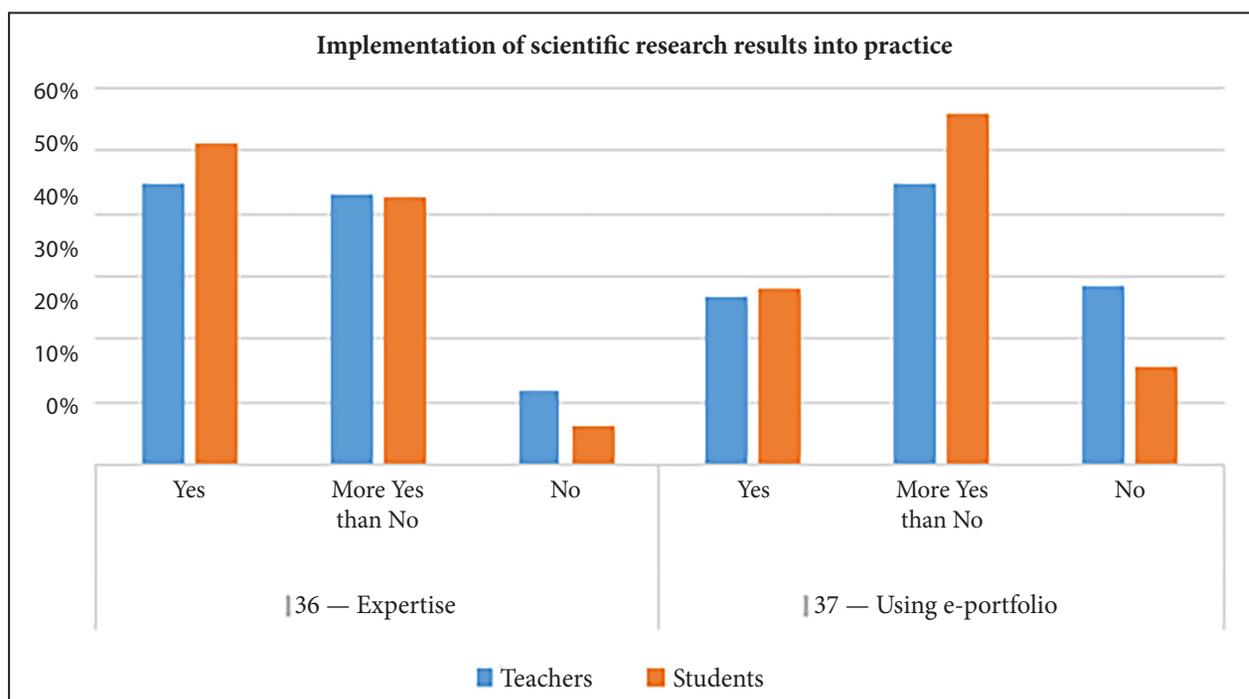


Figure 21: Comparison of teachers' and students' opinions on the importance of popularization of own scientific research

students than teachers think that such proficiency is needed in the work of academic teacher.

Opinions of teachers and students on involvement of students in scientific activities, managing of elective scientific club and development a diagnostic tool for the analysis of scientific data

were not statistically significantly different. More than third of teachers and students are persuaded that involvement of students in scientific activities is not important. On the other hand, approximately one fifth of students and teachers see it as necessary competence. Moreover, more than third

of teachers see the development of a diagnostic tool as unimportant. More students than teachers consider this competence to be useful for academic teacher (see Figure 22).

The conducted Mann Whitney U test showed that the difference between opinions of teachers and students on adherence to standards of academic

integrity was statistically significant by the result  $Z = -2,708$ ;  $p = 0,007$ . Teachers considered the adherence to standards of academic integrity to be more important than students. Three quarters of teachers are convinced that the adherence to academic integrity's standards is essential competence of academic teacher (see Figure 23).

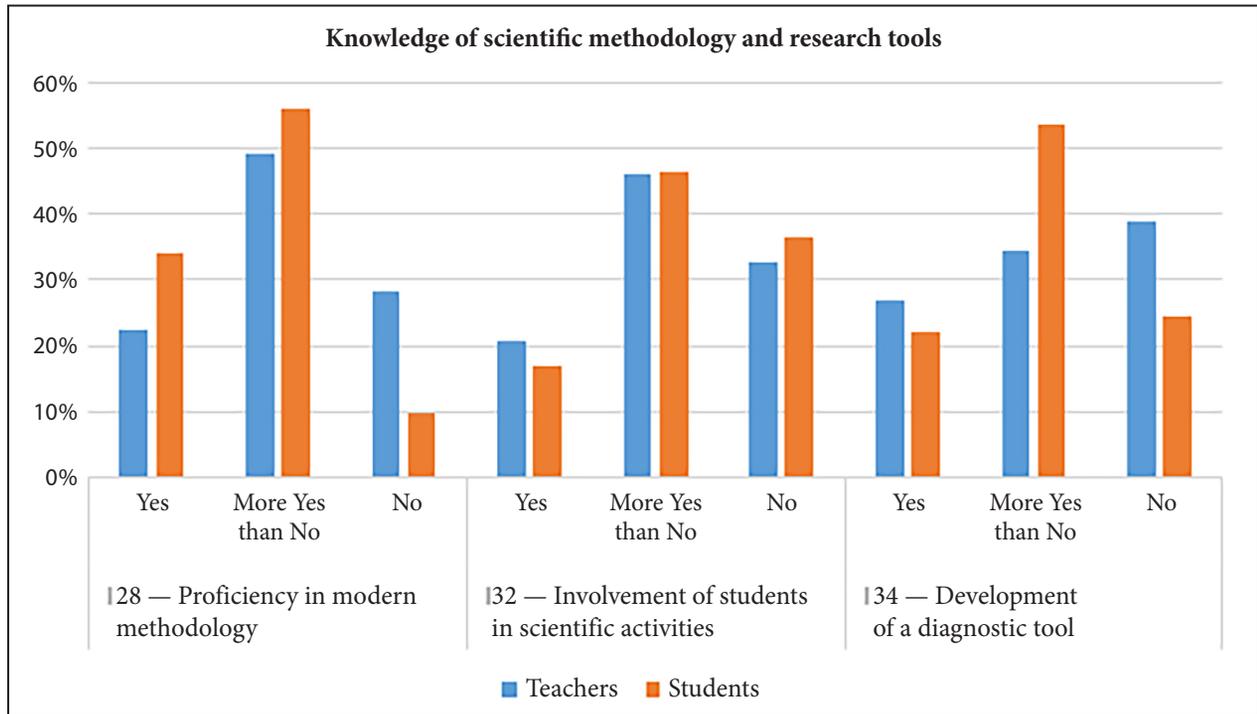


Figure 22: Comparison of teachers' and students' opinions on the importance of knowledge of scientific methodology and research tools

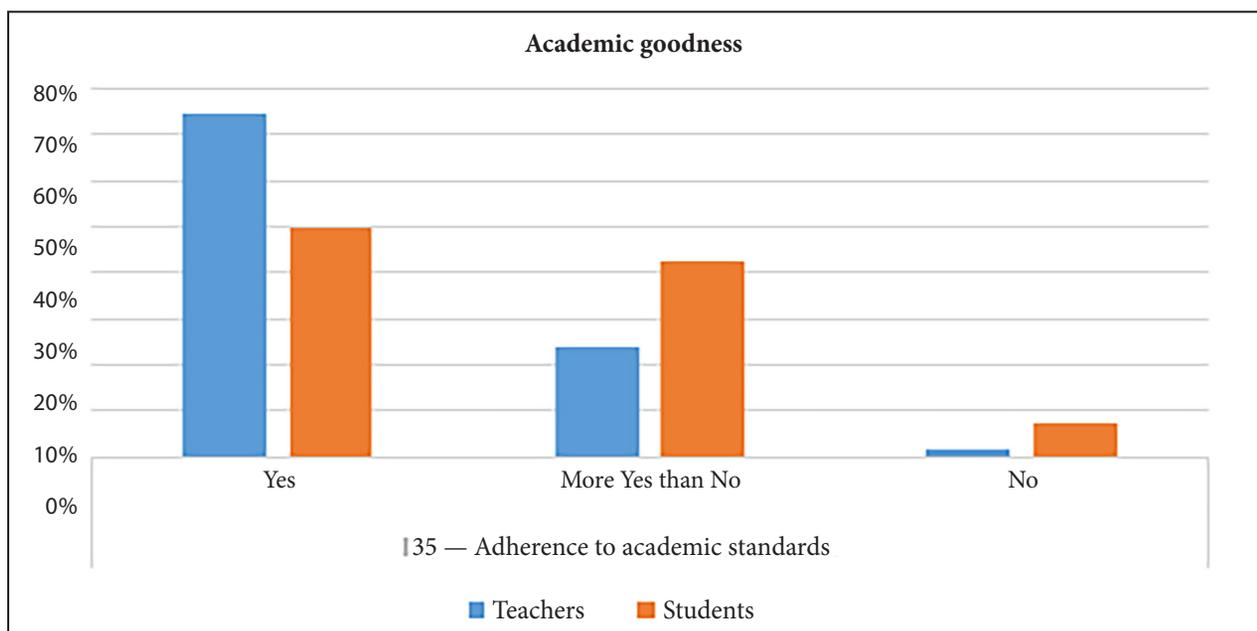


Figure 23: Comparison of teachers' and students' opinions on the importance of academic goodness

In addition, students consider it to be important, but not as strongly as teachers do.

The issue of academic teachers and researchers competences is inseparable from the whole system of evaluation and quality policy of higher education institutions. It is not just a narrow view on academic teachers and requirements which current trends accent. Quality of a teacher cannot be isolated factor as it influences the quality of students, university environment, remuneration system and motivation to work and continuous self-development. It is closely related to the formulation of graduates' profiles of particular study programs and the design of study programs. This follows from the fact that specific study programs require specific types and qualities of academic teachers as theoretical study programs have different characteristics than practically oriented study programs. Naturally, that leads to different requirements on competence profile of academic teacher.

We present several authors' suggestions of this study towards the options of use and modification of evaluation from the tool of control to the tool of quality development and the change of participants' attitude from ordering to the incitement (Babiaková, 2014). Since the academic teachers' competences cannot be isolated, we also emphasize the related factors: students and study programs. We summarize those priorities which we consider to be applicable to most of the workplaces of Matej Bel University.

#### **Teachers**

- Accept and implement international trends of competence approach towards quality assessment of academic staff (teachers and researchers).
- Fundamentally change the attitude to institutional evaluation of pedagogical activities

through the development and assessment of academic teachers' competences.

- Scientific and research activities closely align with the development of study programs. This guarantees permanent innovation of study programs based on scientific approach and simultaneously converges the effort of teachers/researchers on common goals formulated in the vision of the workplace.

#### **Students**

- Focus on recruiting and selecting quality applicants.
- Support and look for scientifically talented students (before entering the university).

#### **Study programs**

- Identify and classify the strengths of study programs so that they become salient for the vision of program.
- Identify and eliminate the weaknesses of study programs, clearly state, if these are related to the concept of the program and its continuity, timeliness and applicability of graduates to the labour market or mistakes made by program teachers.
- Identify weaknesses of current study programs based on empirical verification using the information and opinions of teachers, students and graduates, so that the mistakes will not be repeated in newly accredited study programs.

International cooperation and participation in research projects is a stimulating resource for the development of academic workplaces, i. e. of teachers, researchers, students, processes as well as methods and tools at institutional, personal and processual level of tertiary education.

# DEVELOPMENT OF ACADEMIC STAFF COMPETENCES IN CZECH REPUBLIC

Over the past twenty years there has been a rapid development of quality-assurance systems in university education. However, the notion of “quality” at universities is still being discussed at various levels. In order to make sense, it must be tied to aspects that are related to university education, such as the quality of instruction or research. Eurydice Report (2017) points out that it is the teaching process which is usually mentioned as one of the pillars of the process of quality assurance in university education, but the other pillars include research activities, organisational structure of the University, working conditions of employees, the ratio of students to academics, evaluation standards and accreditation of curricula. External evaluation of university education in European countries is carried out by external quality assurance bodies, in most countries it is a quality assurance agency at universities education institutions that is a member of ENQA.<sup>1</sup>

According to European Commission report (Eurydice, 2017), all European countries have put in place national quality assurance systems, and many university institutions have developed their own quality improvement strategies. Nevertheless, there are significant differences in the systems of particular states, as this is an area of dynamic development that has an impact on instruction as well as academic staff. The results of the evaluation affect, for example, career progression, salary growth or renewal of the contract. Evaluation methods vary from country to country. These may

include self-evaluation, constructive dialogue, evaluation by students and others.

Too many university teachers have only minimal or no pedagogical education, and systematic investment in continuing professional development of teachers remains exceptional. National and institutional strategies to improve career opportunities and rewards for good teachers are becoming more common, but far from being a standard (European Commission, 2017).

If a university teacher should play the role of an educator effectively, it is essential that he/she has professional competences, preferably at the highest possible level, and develops them continuously. They can be considered as a fundamental prerequisites for the didactic activity of a university teacher. In general, we can say that professional competences determine knowledge, abilities, skills and attitudes that a university teacher should have. Bajtoš (2013) points out a teacher is not just a master of science, but also his/her experience and self-reflection play a big role. The teacher can not rely on a certain “degree of innateness” of professional competence, but these must be developed via studies of university didactics. In the scientific literature, we also encounter a whole range of models of competences of a university teacher whose role, recently, has been gradually changing from the mere presentation of information to focusing on the expert role of the teacher. It means that the teacher is a facilitator of the student’s educational process, he/she advises, controls, feels responsibility for the development of the student and analyses

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<sup>1</sup> European Association for Quality Assurance in Higher Education

and evaluates his/her activities and their impact on the process of education (Slavik, 2012). Kunter et. al. (2013) states that it is the knowledge of the content of a subject together with the didactic competence that is necessary for the educational process, but a student as well as interactive and constructivist approach to instruction must not be forgotten that the student and the, which significantly increases the efficiency of education. Within the constructivist learning, students cooperate and are encouraged and motivated for self-regulation by a teacher.

The scientific community (Průcha, 1997, Turek, 2001, Bajtoš, 2013) define the components of the professional competences of a university teacher and differentiates them to the *vocational* (knowledge of the content of the curriculum), *scientific* (the ability to carry out scientific research in his/her field), *psychodidactic* (creating suitable conditions for the instruction), *communicative*, *diagnostic*, *planning* and *organisational*, *consulting*, *self-reflecting* and *self-cultivating*. While the vocational competences are obtained by completing a master's degree and scientific competences by completing a doctoral degree, the remaining competences are usually acquired on the basis of life experience of a teacher. Approaches and views on the professional competences of a university teacher are varied and some authors present their other specific components. These make specific cumulations — models.

Blašková et. al. (2014) provides a model of competences for a university teacher, which includes moral-ethical, technical, scientific and didactic competences apart from the above mentioned. It is also necessary for a university teacher to be a recognized author, a model for others, and be capable of excellent critical thinking, communicative skills and motivational abilities.

Blašková, Blaško, Jankalová and Jankal (2014) present the following list of competences of university teachers which is based on the discussion of 27 experts at University of Žilina: educational, cognitive, communicative, research, publication, personell, motivation, professional and a competence for growth and development. Summan and Zitouni (2017) work with four groups of academic competences — professional, technological, human and evaluation.

From NUI Galway (2018), it is *clear* that at this Irish university they use a competence framework to recruit new academics and for their further

development. The framework describes the basic knowledge, skills, abilities and qualities associated with good performance. Everything is defined in such a way that academic behavior is measurable and describable. Their framework includes six competences, i.e.: research and instruction form an academic dimension; personal competences and leading the others form the dimension of leadership; strategies and visions and collaboration represent an organisational dimension. Each dimension has defined levels for teacher assistants, senior lecturers and professors. The competence model specifies which competences and at what level the candidate must meet and where there is space for further development.

The company of Microsoft (2018), created a competence model of a university teacher for educational purposes not only at universities, but also at secondary schools and in vocational education. This is a varied set of components of professional competences which was created on the basis of interviews with university professors throughout the United States of America. American professors see the main activities of a university teacher in preparing and conducting lectures and seminars for students, in scientific and publishing activities, in counseling for students and colleagues, as well as mentoring for novice university teachers and administrative and managing tasks for their university.

The quality of instruction is supported by quality assurance processes, including evaluation of teaching by students and by building structure of the development of academic staff. Even though the evaluations have a positive results, it should be noted that there is too much reliance on students' questionnaires as the only way to evaluate teachers' performance rather than being combined with other evaluation tools. In this context, Hativa (2014) emphasizes that it is necessary not only to redefine the concept of "effective instruction", but also to find effective tools for the exploration of this concept, and to manage the way of presenting the results and to further apply them in the management of pedagogical activities.

The evaluation of academic staff is slightly more regular in teaching (89 % of schools) than in research (in 84 % of schools). 93 % of schools use students's feedback questionnaires to evaluate instruction, 45 % use teachers' s portfolios, and 37 % use feedback from colleagues for evaluation. Nevertheless, 98 % of respondents (institutions) collect feedback information on instruction,

83 % on educational environment, and 73 % on support services. 72 % of institutions introduced a procedure how to deal with a bad performance of a teacher in class. It usually includes the requirement to discuss the matter with the dean of the faculty or the head of the department (67 % of institutions). Research showed systematic effort in the development of teaching skills of academic staff, which combines optional courses (75 %) and compulsory courses (40 %). At 60 % of universities, central specialized departments are established. Their building is a part of the Examining Quality Culture (EQC) trend.

65 % of university institutions have a system of appreciation of good teachers, and another 19 % plan to implement this system. Often it is students themselves who propose their teachers to appreciate. At Edinburgh University in Scotland, in November 2016, they analyzed about three thousand student nominations for “best overall teacher” (which was more than a third of all nominations), subject, feedback and environment (What does good teaching look like to students?, 2016) and they found out that comments on the nominations freely given by students could be grouped into four areas:

1. Concentration, visible effort (for example, to be organized, respond to questions, balance between multiple projects, and provide feedback/advice for the future).

2. Charisma, personality and engaging instruction (including humour, energy, a passion for university work and enthusiasm).

3. Removing barriers between students and teachers and encouragement in involvement of students (e.g. creating academic connections with students via personal feedback, a knowledge of students' names, and organising extracurricular events or trips).

4. Consistent, predictable support (the teacher has an open-door policy, is transparent, has a knowledge of university processes, and helps students overcome their personal problems).

These characteristics of university teachers have much in common with the so-called “student's educational beliefs”.

Facts about conceptions or beliefs of students on instruction were collected by Turek, Sándor, Blaško and Zelová (2013) via seeking their ideas about quality of education at the Technical University in Košice. The answers of 227 students brought the following results: 61 % of students think that a good teaching is what is needed for

work practice (area of teaching content), 51 % of students mention the importance of suitable material conditions, including appropriate means, available information and study materials (area of learning conditions), almost 47 % of students value teacher professional competence (teacher area) and 29 % their good approach, relationship with students and their personal qualities (teacher area) and 13 % useful and up-to-date information acquired during instruction (area of teaching content). For most of the respondents, an essential feature of quality teaching is its link to practice, good material equipment and, finally, professionalism of the teacher.

In the early 1990s there was an intensive development of the theories and practices related to the quality assurance of university education. Of all the theoretical definitions presented by Harvey and Green (1993), the following three are the most applied for university education purposes: accreditation, evaluation and audit. Accreditation is used as a way of ensuring the quality of a university, which results in the granting or non-granting of authorization to perform this activity. Quality evaluation can be defined as an assessment of the quality or value of a particular subject (programme, faculty, teacher) (Kohoutek, 2008).

By amendment No. 137/2016 Coll. Act No. 111/1998 Coll. changed and brought a major change in accreditation. The power to grant accreditation is in the hands of a new body — National Accreditation Authority, which replaced the Accreditation Commission on September 1, 2016. The chairperson and vice-chairpersons are the head of the office and, together with fifteen members of the council, they cannot perform any paid or unpaid positions at any universities. This guarantees their detachment in issuing accreditation decisions (Vojtková, 2016).

The research by Cisovská and Tollingerová (2002) shows that pedagogical competences are often underestimated by academics. Although most of the Czech academic staff have a positive relationship to their profession and understand it as a life mission, they do not feel the need to prepare themselves in a pedagogical way and they see the basis for their profession in their field of study. In this case, however, it is not enough to know their discipline but also to convey their knowledge to students effectively. The research also shows that academic staff of the faculty of education regard themselves more as teachers

than researchers because they usually graduated from this faculty and worked as teachers at schools for many years.

The development of pedagogical competences of an academic is directly related to his/her lifelong learning. A university teacher who is interested in building their career should keep up with the best in his field, attend conferences, seminars and professional meetings, if possible, they should get involved in grants and publish results of the research in the scientific literature.

It is also necessary to realise that the given issue concerns a relatively large group of people who are professionally involved in tertiary education. In 1989, the number of university teachers in the Czech Republic was 11,644, and in 2007 it grew to 18,026 (full-time teachers + 1,500 teachers at vocational schools which did not exist before 1989). The Czech academic community is differentiated into professors, senior lecturers, lecturers and assistants. The habilitation process is perceived as a certain landmark in the career of a university teacher and is associated with greater job security and high prestige in the academic community. As well as before 1989, at present the ratio between academics before and after habilitation is 2: 1. The Czech academic environment is characterized by a later age when it is attained both as a senior lecturer and as a professor. In the case of habilitation, the average age is 48 years and 53 years for professors<sup>2</sup> (Prudký, Pabian, Šimá, 2010).

At present, the pedagogical preparation of university teachers is carried out within their master's or doctoral studies or in further education. The courses are realized by a number of educational organisations,<sup>3</sup> e.g. one of the preparatory courses named "Pedagogical Preparation of Novice University Teachers and PhD Students at the University of Economics", which is headed by the Department of didactics of economic subjects at the University of Economics in Prague. The course is meant for PhD students, novice university teachers and successful graduates will obtain a certificate<sup>4</sup>. The course consists of 3 modules:

1. University pedagogy and didactics (1 day);

2. Complex individual work of university teacher (1 day);
3. Microteaching (2 days).

One of the most challenging tasks is the combination of instruction and research. Sajdak (2013) generally considers these two tasks to be teacher roles and emphasizes the another role — that of a manager. He personally considers the didactic competence of the teacher crucial, as this involves the preparation, implementation and evaluation of the educational process.

Fairly enough research has been devoted to investigating the influence of teachers and instruction on students achieving success. Surveys show that the quality of a teacher is an important factor in determining earnings of students' results, and one of the determinants for improving student performance is his/her excellent knowledge of the subject. In their research, Woessmann, Baumert, Goldhaber and Brewer found out that the performance of students in mathematics is positively linked to the education of the teacher. Even the specific aspects of teacher competences are systematically related to differences in the quality of teaching as well as in performance of students. Studies that focus both on the teacher's knowledge of his/her subject and on teaching methodology and pedagogical competence show that these aspects have a positive impact on the final performance of students (Woessmann, 2003, Baumert, 2011, Goldhaber & Brewer 2000 in Schleicher, 2016).

This allows us to answer the question of whether it is sufficient for an academic to use their professional training and scientific methodology during their studies. Even though an essential feature of the academic profession is a high degree of autonomy and independence connected with academic liberties and the autonomy of university institutions, university teachers should systematically participate in pedagogical training throughout their professional careers. The degree of independence increases along with the progress in academic career. It is reflected in decisions about the focus and methods of scientific research, about the conception of educational content and instruction, about requirements on students

<sup>2</sup> An entry from 2004.

<sup>3</sup> ICV MU Brno — a free course for novice academic personnel and Ph.D. students More information here: <http://icv.mendelu.cz/26516n-zaklady-vysokoskolske-pedagogiky>, TU in Liberec — four-term study with distatnt features. More information here: <https://www.cdv.tul.cz/wp-content/uploads/2015/09/Kurz-vysoko%C5%A1kolsk%C3%A9-pedagogiky.pdf>

<sup>4</sup> The content of the course available here: <http://kdep.vse.cz/wp-content/uploads/2014/05/program-kurzu1.pdf>.

and ways of identifying the study outcomes. It is also reflected in the participation of university teachers in the self-government and management of university institutions if they are elected in academic elections.

According to Act 111/1998 Coll. On Higher Education Institutions and subsequent amendments, in the 7<sup>th</sup> part called “Academic Staff” and in Section 70 named “Academic Staff”, it is stated that “academic staff are those professors, associate professors, extraordinary professors, junior lecturers, assistants, teachers and scientists, research and development professionals who are the employees of a university and according to the agreed type of work they do both pedagogical and creative activities. Academic staff are obliged to observe the reputation of a university”.

An associate professor is appointed by the rector on the basis of habilitation procedure. The applicant’s scientific or artistic qualification is verified in the habilitation process, especially on the basis of the habilitation thesis and its defence and other scientific, professional or artistic work, and his/her pedagogical competence on the basis of the evaluation of the habilitation lecture and previous pedagogical practice.

A professor for a particular field is appointed by the president of the republic if he/she was previously nominated by the professor by the scientific or artistic board of university. The proposal of the above board is submitted to the President by the minister. In the procedure for the appointment of a professor, the pedagogical and scientific or artistic qualifications of a candidate who is an outstanding and recognized scientific or artistic person in his/her field of study shall be proved. The prerequisite for the start of the proceedings is the previous appointment of a senior lecturer on the basis of the habilitation procedure, if it included the habilitation thesis.

The posts of academic staff at a public university shall be taken on the basis of a selection process. The selection process may be abandoned in case of renegotiating a post with the academic if it is the same position or in the cases defined by the internal regulations of a university.

Academic staff are subject to general labour law regulations. The status of academic staff is governed by the Higher Education Act and, in detail, by the internal regulations of the institution.

The Higher Education Act grants universities (and academics) the following academic liberties and academic rights:

- freedom of science, research and artistic creation and publication of their results;
- freedom of instruction, based primarily on its openness to various scientific opinions, scientific and research methods and artistic trends;
- the right to freely choose the focus of study within the curriculum and the freedom to express their own views in teaching;
- the right to elect representative academic bodies;
- the right to use academic insignia and to hold academic ceremonies.

An academic is a member of the academic community of a specific university. At a public university, he/she may be nominated and elected to the academic senate of the university or faculty and also may be nominated as a candidate for the dean or rector (dean is appointed by the rector, rector is appointed by the president of the republic). An academic may be appointed to other self-governing academic bodies, such as the scientific or artistic board, the internal evaluation board (if established) and the disciplinary board. An academic may be entrusted with the position of a vice-rector, vice-dean of the faculty, director of a higher education institute or head of other institutional bodies of the university (e.g. The head of the department). As a representative of the academic community, an academic may be delegated to the Higher Education Council (one of two national representations of higher education institutions in addition to the Czech Conference of Rectors). Only a professor, an extraordinary professor or senior lecturer who are academics at a relevant higher education institution can guarantee the quality and development of a master’s or of the doctoral study programmes carried out by the university (or its parts). The bachelor’s degree programme can be guaranteed also by a scholar with a degree (PhD or CSc).

In 2007, the Higher Education Council approved the Model Code of Ethics for academic staff of universities on the basis of the European codes and the Code of Ethics of researchers at the Czech Academy of Sciences. Some universities have taken over this code of ethics, others have created their own. According to the government regulation on standards for accreditation in higher education, the establishment of a university code of ethics is part of the requirements to meet the conditions of accreditation.

The Ministry of Education's (MŠMT) Annual Report<sup>5</sup> enumerates around 40,000 employees working at state universities and colleges in the Czech Republic, out of whom there were 17,600 academic staff (among them 36 % of women) and 3,900 research staff (among them 34 % of women).

Average monthly gross salary of academic personnel at state universities and colleges reached 48,412 CZK, which corresponds with a yearly pay rise of 6,4 % (i.e. 2,900 CZK), out of which 40,972 CZK with women and 52,542 CZK with men. In line with academic rank, the highest average monthly salary was drawn by professors — 78,138 CZK (74,160 CZK with women and 78,872 CZK with men) while the lowest average monthly salary was drawn by assistant lecturers — 30,737 CZK (29,453 with women and 32,065 with men).

As regards their working position, more than a half of academics were assistant professors (9,200), more than a fifth associate professors (3,900), and more than one tenth professors (2,000), less than one tenth among academic staff were lecturers without a doctoral degree, and 5 % other lecturers (700).

Koucký's study (2017) implies that salary insufficiency with university and college teachers does not only result from direct comparison of their nominal value, but also from comparing the salary levels of various university professions within the context of a given country. Salaries of Czech teachers at all educational stages, including universities and colleges, remain below the average general level of salaries of employees with university education, which has no match worldwide, with university teachers at least. From among the eighteen countries that were subject of the research, this only applied to the Czech Republic, Slovakia, Hungary, Norway and Finland, the discrepancy being the highest of all in the case of the Czech Republic.

Salaries of Czech university and college teachers are fairly low compared to those in other developed countries. Back in 2014, salaries were higher in nominal value (relatively to exchange rate) in the majority of the countries compared — three times higher (Belgium, Finland, France, and Sweden), four time higher (Italy, Great Britain, and the USA), or even five time higher (Australia, Luxembourg, and Norway). Salaries of university and college teachers are nominally higher even

in some of the less developed countries (in South America) with lower economic performance than the Czech Republic such as Chile or Brazil.

The author concludes by stating that low salaries of academic personnel considerably reduce the chances of our universities and colleges in both national and international competition for quality academic staff. This applies to both inviting renowned personalities from abroad to work at Czech universities, and for recruiting and retaining top Czech specialists. Global research has repeatedly shown that quality teaching staff is a crucial factor with high quality of education. It is impossible, under the current circumstances and conditions, to expect from or even require Czech universities to achieve result comparable with those of the best schools in the world's developed countries.

The Institute of Psychology at Czech Academy of Sciences in Prague conducted research among 2,229 academics from Czech universities and colleges between 2014 and 2016 (Keményová, 2017). A few interesting facts from its finding are relevant for the present study. Nearly 84 % of scientists and academics working at Czech universities admit that they are content with their work and the working conditions. If there is anything they do not like about their job than it is their salaries or discontent with their immediate superior such the head of the department. However, content generally prevails over negative emotions among Czech scientists. Czech academics are relatively much more content with their job in comparison with the situation worldwide. Comparable studies on the topic from abroad usually give the rate of content between 52–69,5 %. Czech academics are mainly content with their job due to a great amount of freedom. They are free to choose their specialisation, topics, they can plan themselves whether or not to apply for a grant, a stay abroad etc. As regards discontent, Czech academics mention the issue of salaries; more than 54 % of respondents were not content with their financial reward. The quality of management at faculties is the second most frequent reason for discontent. 33 % of respondents can view low quality of management and 44 % of academics consider low management quality to be one of the main problems at their workplace. Many academics also complained about their superiors being reluctant with solving problems

<sup>5</sup> [http://www.msmt.cz/uploads/Statistika\\_skolstvi/vyrocn\\_i\\_zpravy/vyrocn\\_i\\_zprava\\_vzdelavani\\_2017\\_public.pdf](http://www.msmt.cz/uploads/Statistika_skolstvi/vyrocn_i_zpravy/vyrocn_i_zprava_vzdelavani_2017_public.pdf)

at workplace. A recommendation for management of faculties could be to try and assist academics with their attempts at effectively combining their working and private lives. Many of them could thus be relieved from stress which is one of the main factors leading to one's burn out in their profession.

The results of a worldwide conducted research into the balance between the personal and working lives of university staff were published in April 2018 (Bothwell, 2018). The research has shown that most university staff felt overworked, financially underestimated, and they also felt their career had a negative impact on their relationships with friends, family and life partners. At the same time, the findings also point out to profound differences between the responses of academic and non-academic staff (i. e. support staff) as well as between men and women respondents.

The research mapped opinions of academic staff members (university teachers, referred to as "academics" in further text) and university students on relevance of academics' professional competences and professional dimensions.

The research problem can be seen in search for answers to several questions: Which of the competences, or professional dimensions (areas) tend to be preferred or underestimated by academics and by students? Next, whether and to what extent there is agreement between views of relevance of competences, or professional dimensions among academics and among students? Do academics' and students' opinions on relevance of professional competences and profiles exercise any influence on their selected personal characteristics?

The survey was to map the current state of affairs and opinions of both the key participant groups involved within the process of university education (academics and students) on relevance of professional competences and profiles (dimensions) to exercising the profession of an academic staff member at a selected university, to trace and discern differences in opinions on competences and dimensions within each of the groups examined, to assess the extent of reaching agreement with opinions on individual competences and dimensions within the groups of academics and students, and to examine and determine the influence of certain variables on shaping of the opinions.

Making use of a research questionnaire seemed to be an optimal methodological means in the face

of the necessity of comparing data (relating to four nations — partners to the international project — at a later stage of the research). The outgoing questionnaire was created in co-operation of all partners to the project, which has its unique impact in the fact that fourteen of the competences defined including three of the profiles (dimension) derived from them do not stem from any of the categorisations or models so far described, but they were set up specifically for the needs of this research.

***P 1 Professional-pedagogical profile includes:***

C 1.1 Competence: *Innovative*

C 1.2 Competence: *Professional self-improvement*

C 1.3 Competence: *Digital*

C 1.4 Competence: *Communicative-interactive*

C 1.5 Competence: *Management*

***P 2 Social-personal profile includes:***

C 2.1 Competence: *Socio-cultural*

C 2.2 Competence: *Professional and personal responsibility*

C 2.3 Competence: *Leadership*

C 2.4 Competence: *Civic*

***P 3 Academic profile includes:***

C 3.1 Competence: *Research*

C 3.2 Competence: *International Cooperation*

C 3.3 Competence: *Scientific PR*

C 3.4 Competence: *Methodological*

C 3.5 Competence: *Academic integrity*

The professional competences were handled by one to three questions within a questionnaire that consisted of a total of 37 closed scale-based questions (a 4-point scale), one open question (for the sake of handling further specific characteristic features relevant to an academic's work), and a few questions enabling to identify the respondent (in case of academics these were sex, age, length of professional experience and academic rank, with students they were merely sex and year of study at university). Thirty-eight of the topic-relevant questions were identical in both the academic staff and student questionnaires (differences between the versions for academic staff and for students are given in final section of the questionnaire).

**Content characteristics of lecturer's competences of higher educational institution**

A total of 14 delimited professional competences were handled by the complete set of all 37 questions.

Both questionnaires were administered in an on-line environment. Nearly all members of academic staff from the University of Ostrava and its Faculty of Education were addressed to participate and provide the research data. Academics and students were addressed at Faculty of Education at Matej Bel University in Banská Bystrica, academics and students responded at Faculty of Ethnology and Sciences of Education, University of Silesia in Katowice, and academics and students of the Faculty of Education were respondents at Borys Grinchenko Kyiv University.

The advantage of electronic testing lying in a swift collection and retrieval of data was connected with a lower percentage involvement

of addressed academic staff members from all four partner universities. The data was collected within the period of March to April 2018 with repeated call for response.

The target group in the Czech Republic consisted of 223 academic community members from the University of Ostrava, out of which there were 73 academic staff and 150 students.

Most academics — 46,6 % fell into the category of 41 to 55 years of age. Academics aged between 25 and 40 represented the second largest group (Figure 1).

The academics target group was divided into three subgroups with even distribution of respondents according to length of academic experience (Figure 2).

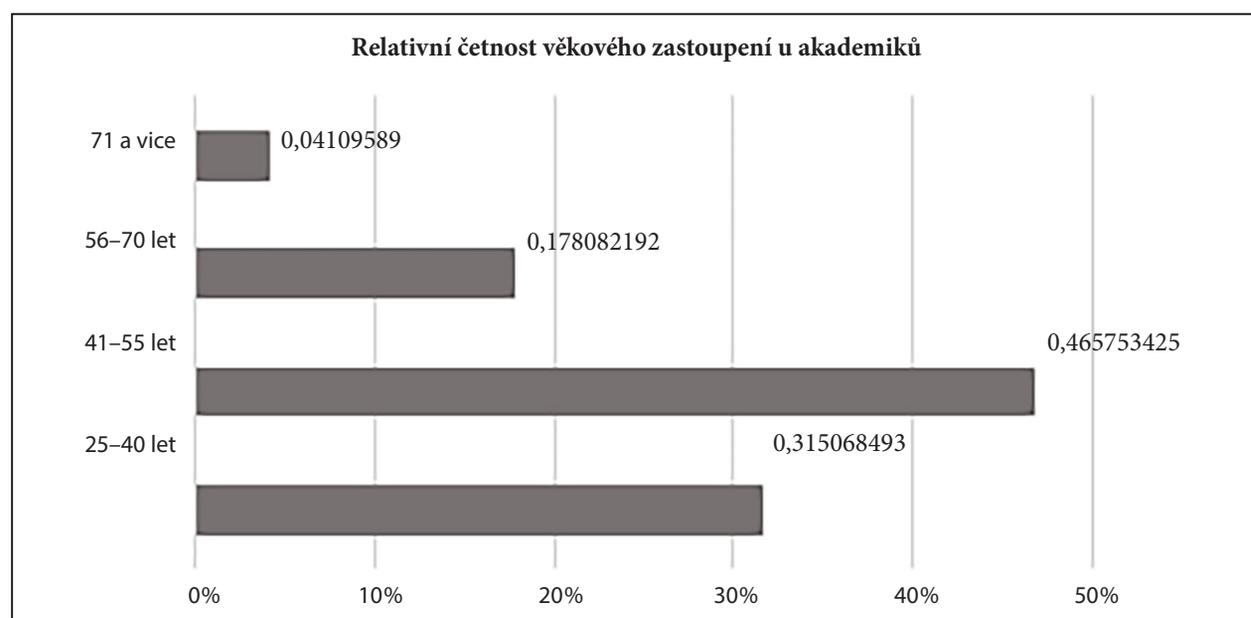


Figure 1: Academic staff according to age

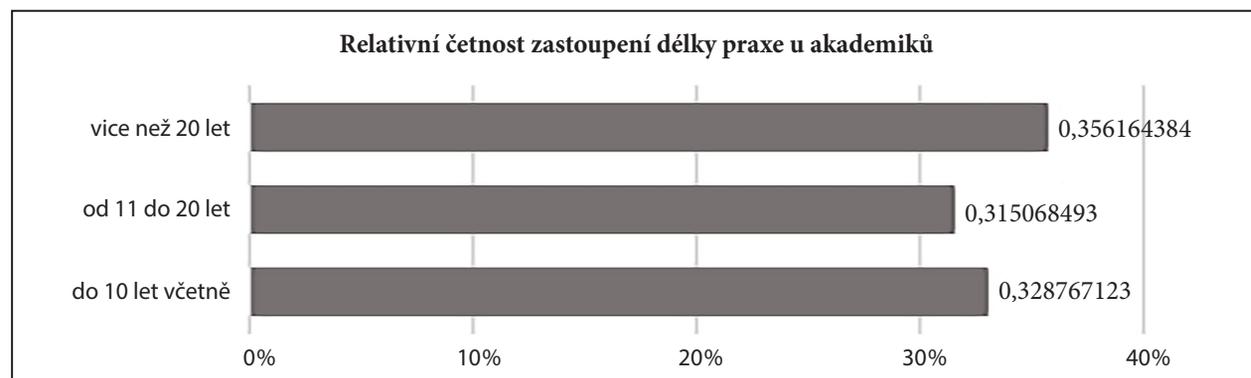


Figure 2: Academic staff according to length of professional experience

Figure 3 shows the subgroup of academics from the perspective of qualification. Assistant professors with PhD degree formed the distinctly largest group within academic personnel — almost 70 %. The second largest group was formed by associate professors accounting for 23,3 % and around 7 % of the academic staff were professors. Koucký (2017) estimates the percentage representation of professors at Czech universities and colleges at around 11 %, while the European average makes a rough 15 % and the percentage is even higher in countries outside Europe.

Nearly 69 % of students are in their first or second years of studies at the Faculty of Education, University of Ostrava.

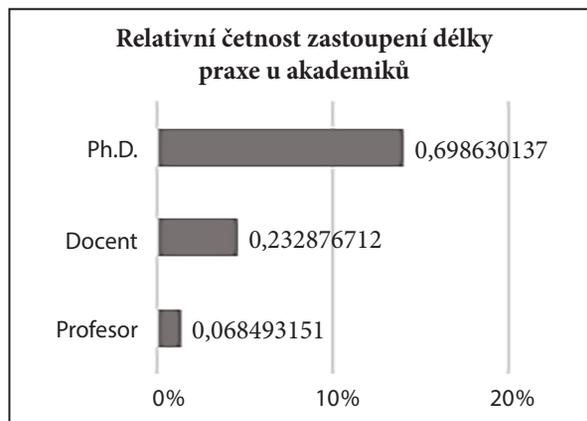


Figure 3: Academic staff according to qualification structure

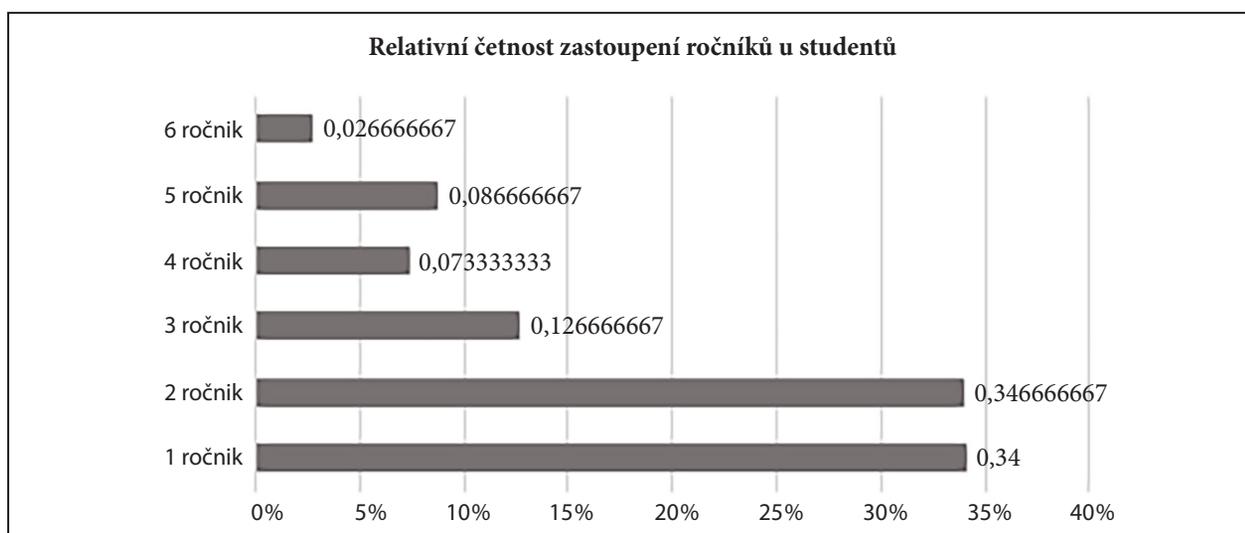


Figure 4: Students according to year of studies

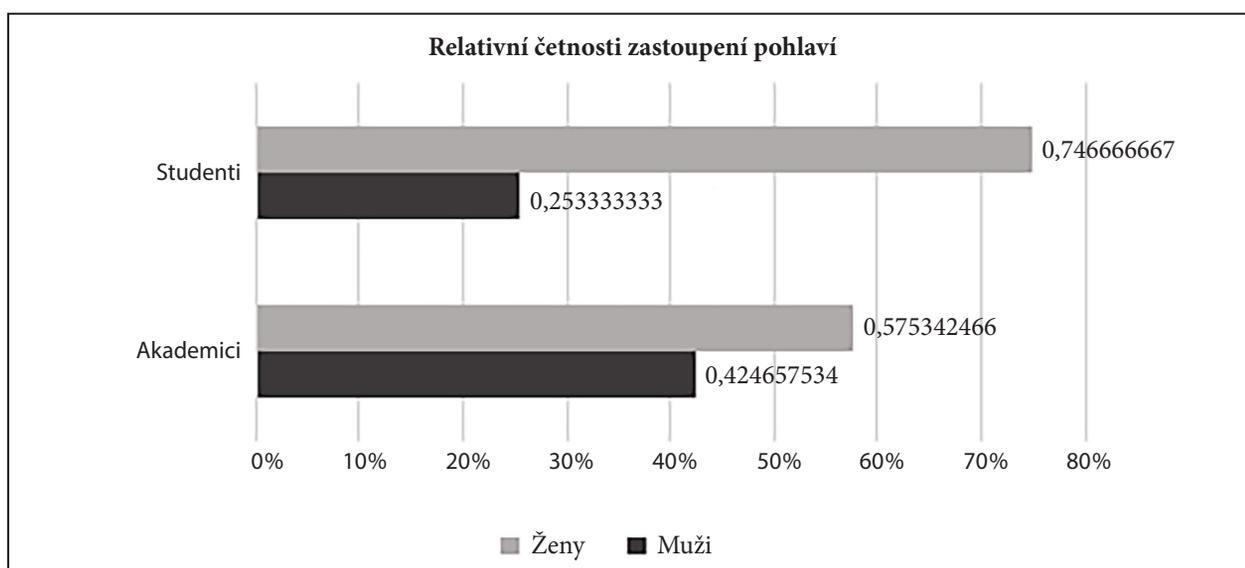


Figure 5: Structure of respondents — academic staff and students according to gender

Among academic personnel there were 31 men and 42 women (42 % to 58 %), the percentage of women was higher with students, too, with 112 women (74,7 %) to 38 men (25,3 %). The percentage of women teachers at state universities and colleges is generally much lower — women forming 37 % of all academic staff, out of which there are 15 % of professors, 26 % associate professors, 43 % assistant professors with PhD, and 48 % lecturers — without doctoral degree.<sup>6</sup>

The proportion of women staff among academics as well as students within the obtained data corpus is related to the specific environment of faculties of education which have been preferred by women both in the roles of academic staff and students, and it largely reflects the proportion of women teachers, predominantly at primary stage of education. Back in 1990 women accounted for 82 % of teaching staff, which was a figure discussed as a highly remarkable feature of the educational system.<sup>7</sup> The proportion of women teachers increased to 86 % in 2016.<sup>8</sup> Men teachers have been a relatively more frequent

phenomenon at secondary schools, conservatories and higher vocational schools where they account for more than a third of the teaching staff (35 %) and their percentage proportion has remained relatively stable over the past eight years (35 % to 36 %).

The data collected are presented at a descriptive and relational processing level.

First, related data for all questionnaire entries with the subgroups of academics and students are shown in six tables.

### Academics

There was full agreement with entry 1 statement “An academic constantly improves himself/herself, improves his/her intellectual and professional level” with almost 80 % of academics. High agreement score is also apparent with entry 5 “Uses fundamental knowledge in the educational process, the achievements of modern science, constantly updates the content of educational courses” as well as entry 4 “Uses various means of communication with students and colleagues, including ICT” (Figure 6).

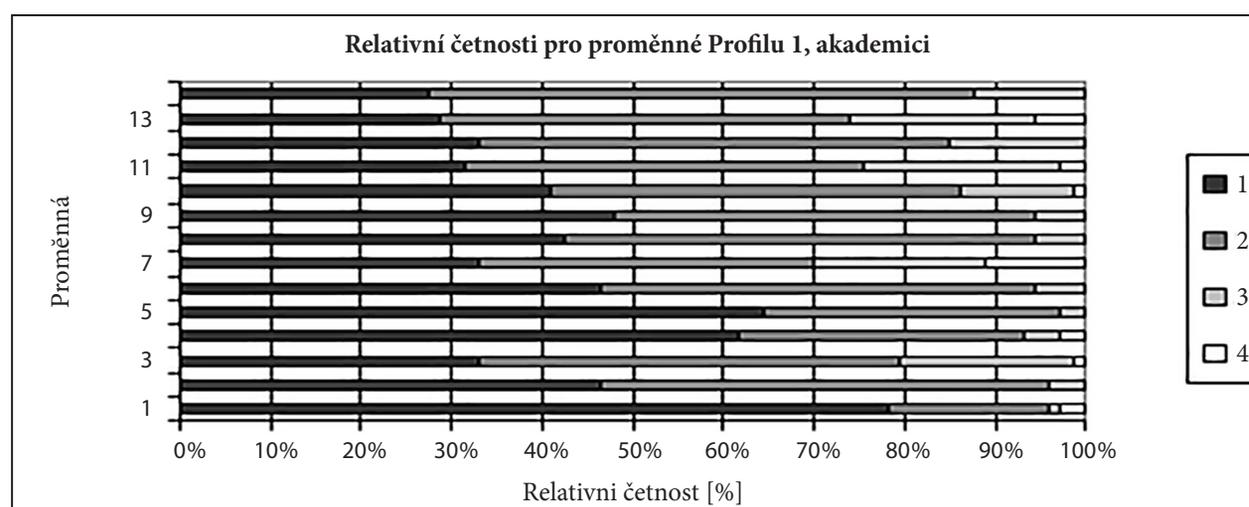


Figure 6: Overview of academics' responses for Profile 1

Legend: (agreement with statements in individual questionnaire entries: 1 — Yes (I fully agree), 2 — More Yes than No, 3 — More No than Yes, 4 — No (I completely disagree))

<sup>6</sup> Statistika a my, 3/2016. Accessible from: <http://www.statistikaamy.cz/2016/03/oproti-zahranici-u-nas-uci-mene-muzu/>

<sup>7</sup> Feminization has for numerous reasons been a worldwide trend within the education sphere in developed countries. A generally high score of women employment can be seen as the main cause, followed by a low prestige of the teaching profession combined with a level of financial evaluation. High representation of women among teaching staff has been assumed to be one of the negative features of the education system, although no relevant studies are available which would either confirm or deny this assumption. Inasmuch feminization undoubtedly brings some positive traits into the education process, people involved in teaching practice often confirm the negative sides to prevail. The main negative impacts of feminization in the teaching profession include the rise of predominantly single-sex-composed pedagogical teams, which has had an unfavourable influence on the climate among teaching personnel, next, extensive overloading of women at work resulting from the demands and responsibilities they are facing at school combined with taking care of their families at home, and, finally, disrupting the balance in interaction between the male and the female elements with education. (Bendl, 2002).

<sup>8</sup> Statistika a my, 3/2016. Accessible from: <http://www.statistikaamy.cz/2016/03/oproti-zahranici-u-nas-uci-mene-muzu/>

The entries relating to Profile 2 competences have shown remarkable score of agreement with statement in entry 20 — “is opened to communication, aspires to understanding and solving complex situations”, entry 18 — “keeps to the rules of professional ethics with all subjects of the educational process”, and entry 15 — “understands the social significance and high responsibility of his professional activities” (Figure 7).

Nearly 70 % of academics fully agree with entry 35 statement — “adheres to the standards of academic integrity”. A mere half of the academics fully identify themselves with the statement — “is able to combine the activities of a teacher and a scientist, organizes student’s studying process based on research” (Figure 8).

**Students**

Agreement with the statement in entry 4 “An academic uses various means of communication with

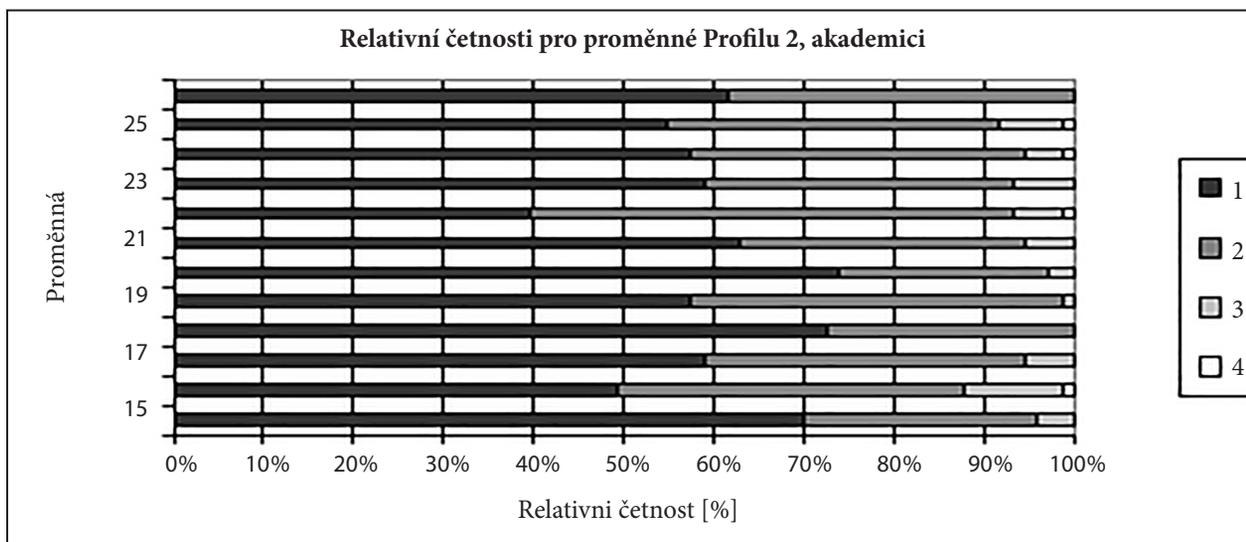


Figure 7: Overview of academics’ responses for Profile 2

Legend: (agreement with statements in individual questionnaire entries: 1 — Yes (I fully agree), 2 — More Yes than No, 3 — More No than Yes, 4 — No (I completely disagree))

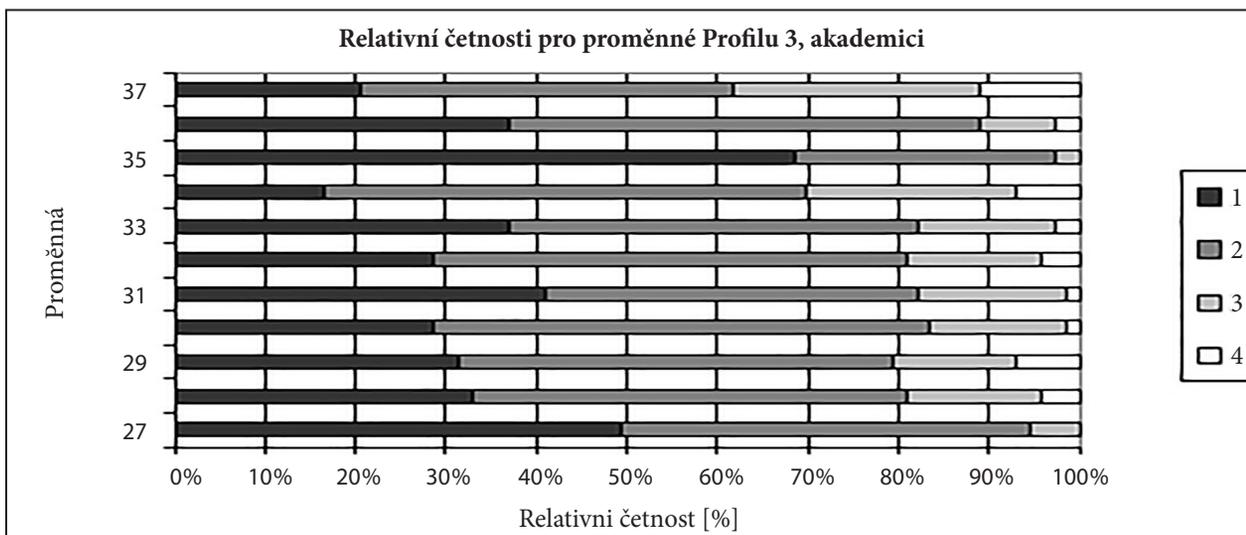


Figure 8: Overview of academics’ responses for Profile 3

Legend: (agreement with statements in individual questionnaire entries: 1 — Yes (I fully agree), 2 — More Yes than No, 3 — More No than Yes, 4 — No (I completely disagree))

colleagues and students, including ICT” is shared in full by almost 63 % of students. About 57 % of the students fully agree with the statement “An academic constantly improves himself/herself and his/her professional and expert level” (entry 1) (Figure 9).

Around 65 % of students fully accept the view in entry 15 — “He/She understands the social importance and responsibility of his/her professional activities”. Only a slightly

lower proportion of students fully agree with the statement “He/She can present and adhere to his/her own ideas and participate in a dialogue and discussion” (entry 21) and the statement “He/She is open to communication and strives to solve and understand complex situations” (entry 20) (Figure 10).

Around 53 % of students fully agree with the statement in entry 35 — He/She adheres to the standards of academic integrity (Figure 11).

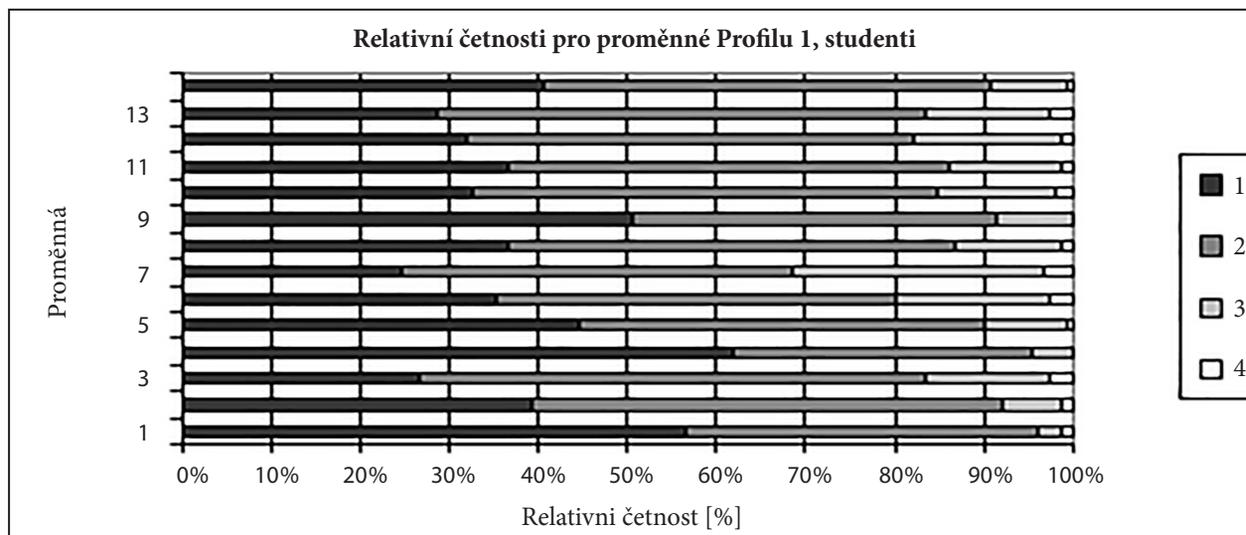


Figure 9: Overview of students' answers for Profile 1

Legend: (agreement with statements in individual questionnaire entries: 1 — Yes (I fully agree), 2 — More Yes than No, 3 — More No than Yes, 4 — No (I completely disagree))

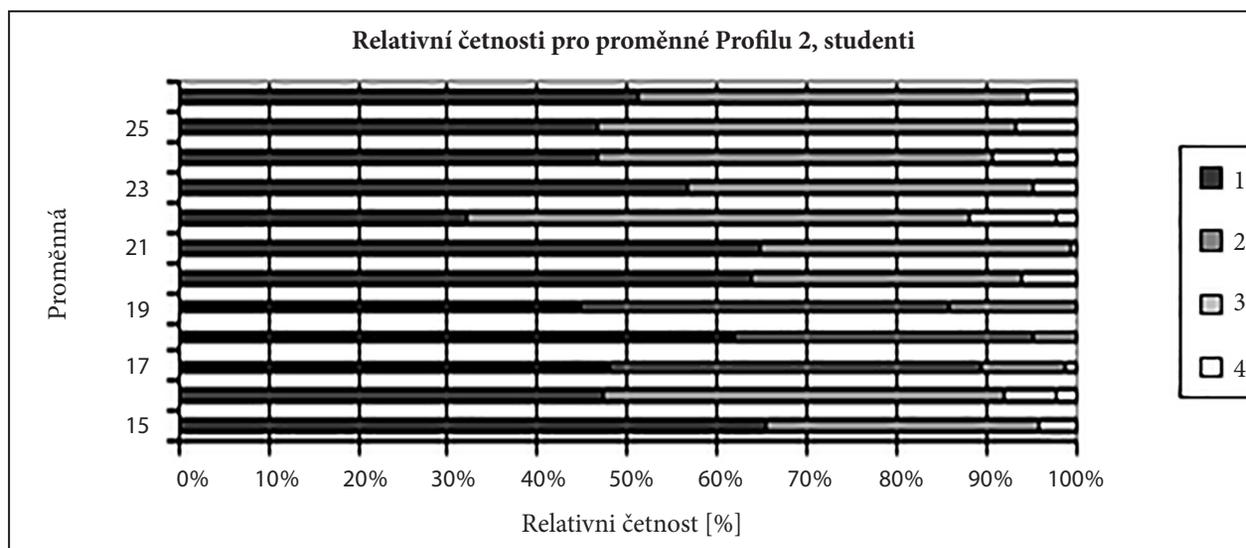


Figure 10: Overview of students' answers for Profile 2

Legend: (agreement with statements in individual questionnaire entries: 1 — Yes (I fully agree), 2 — More Yes than No, 3 — More No than Yes, 4 — No (I completely disagree))

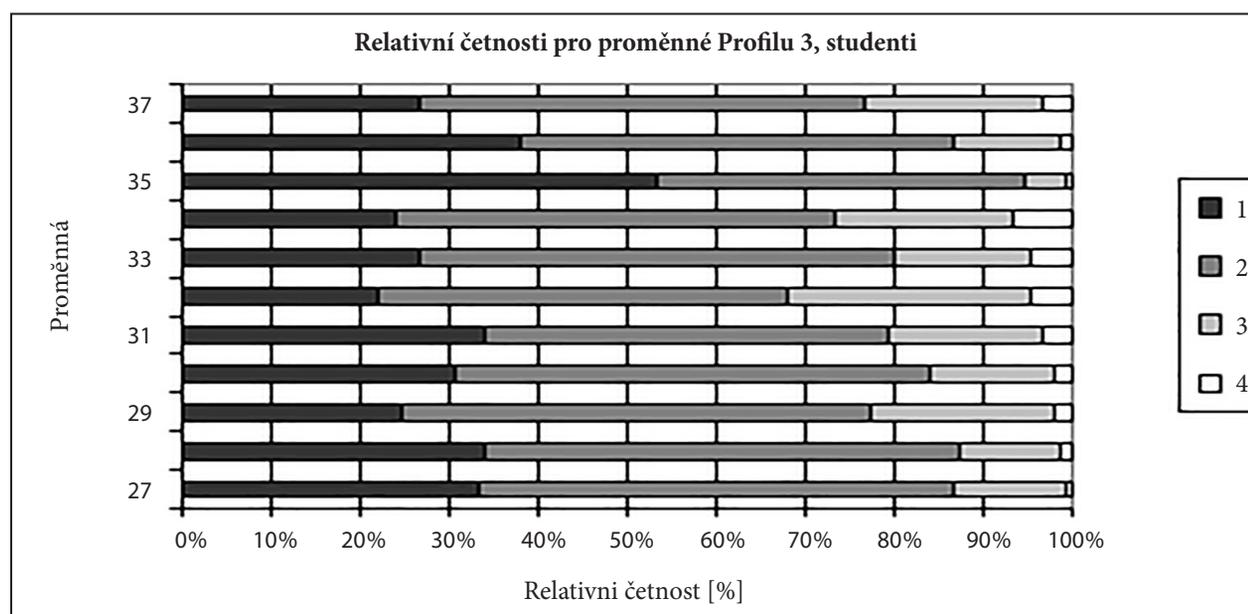


Figure 11: Overview of students' answers for Profile 3

Legend: (agreement with statements in individual questionnaire entries: 1 — Yes (I fully agree), 2 — More Yes than No, 3 — More No than Yes, 4 — No (I completely disagree))

### **Results for delimited competences of academic personnel**

Main findings concerning professional competences:

1. The average value for the 12 competences on the 4-point scale was lower than 2 for the academic and student group. It has slightly exceeded the value of 2 with competences C 3.3 a C 3.4 with both or only one group of respondents. It can be concluded then that both of the groups fully agree or rather agree that academic staff should possess these competences.

2. With Profile 1 academics and students preferred two competences, the competence for professional improvement and the competence for communication and interaction.

3. With Profile 2 both of the groups preferred two competences out of four, the competence for professional and personal responsibility and the competence for leadership.

4. With Profile 3 the preference of academic integrity was clearly predominant in both of the groups of respondents. Academics actually attributed more importance to it than the students did.

Table 1

#### AVERAGE RESULTS FOR DELIMITED COMPETENCES

	Prof. 1	Prof. 2	Prof. 3	C 1.1	C 1.2	C 1.3	C 1.4	C 1.5	C 2.1	C 2.2	C 2.3	C 2.4	C 3.1	C 3.2	C 3.3	C 3.4	C 3.5
Academics	1,71	1,46	1,86	1,80	1,51	1,85	1,61	1,75	1,49	1,34	1,46	1,56	1,76	1,84	2,03	2,02	1,34
Students	1,76	1,55	1,90	1,74	1,61	1,91	1,64	1,83	1,64	1,45	1,55	1,55	1,90	1,92	1,88	2,01	1,53

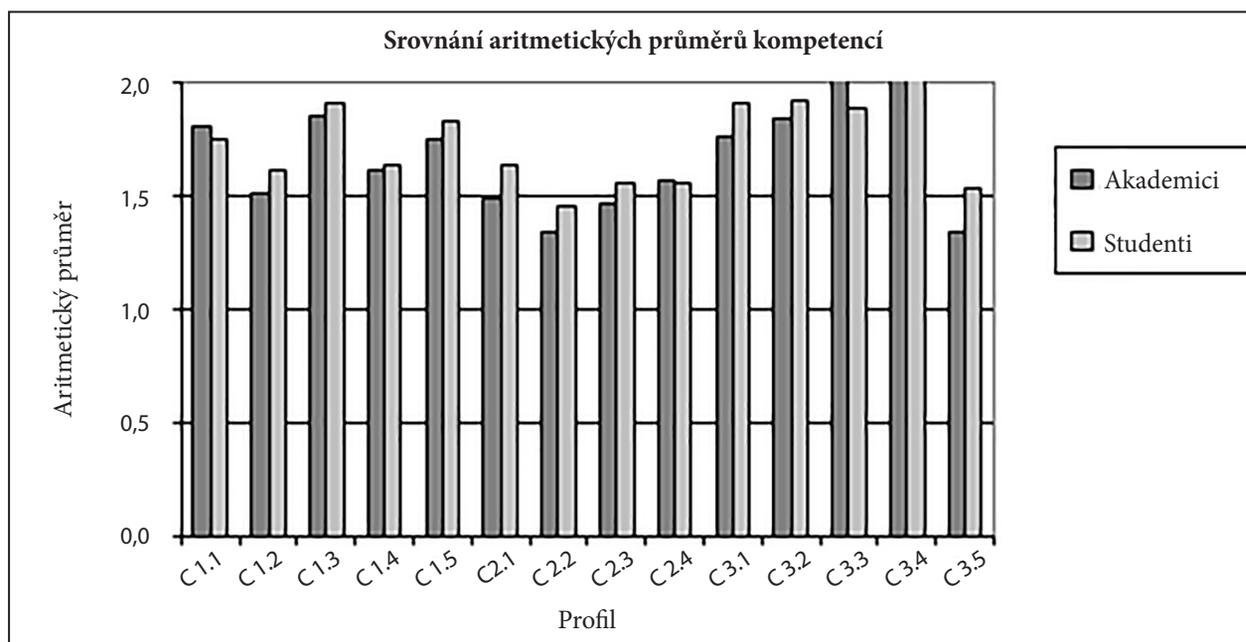


Figure 12: Arithmetic averages for competence relevance levels

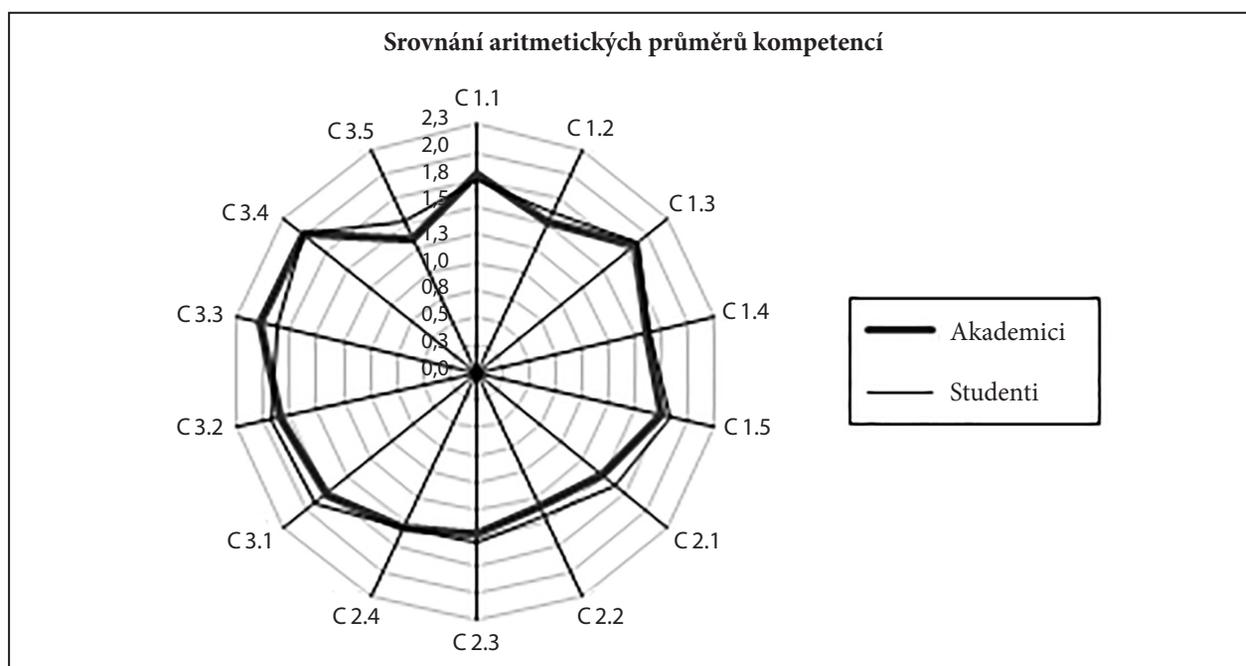


Figure 13: Graphic comparison of arithmetic averages of defined competence relevance levels

5. Academics and students attribute the lowest importance to the competences in the Academic profile, competence C 3.3 — Scientific PR and competence C 3.4 — Methodological. A glance at the particular question entries in the questionnaire, which have saturated both of the competences, can bring a plausible explanation. In the case of Academic competence the respondents assessed two statements “He/

she is an expert in particular scientific field. He/she does professional research, prepares reviews, is in charge of scientific school” and the statement “He/she promotes the results of own research with the use of own e-portfolio.” the activities defined in both of the entries that express the excellency of academic staff in the field of research are still not fully appreciated in our conditions. The respondents

therefore did not find them important enough. In the case of the Methodological competence the respondents assessed three statements “He/she is an expert in methodology of modern science and methodology of research in the field of university education”, the statement “He/she involves students in scientific work, is in charge of optional scientific seminary” and the statement “He/she is capable to develop a diagnostic tool for the analysis of scientific data”. Besides, in this case the findings can be interpreted by formulations of the entries which are rather maximalist and cannot be applied to all academics (especially the expectation that all of them will be experts in the field of university education).

### **Results for particular professional profiles of academic personnel**

Main findings concerning professional profiles:

1. Out of the three defined professional profiles the Social-personal profile has achieved the highest level of relevance, in the case of academics even more than that. The members of academic community thus highly appreciate the culture of behaviour, the respect of academics

for students, the ability of academics to suppress bad mood, demonstrations of high responsibility of academic staff for their professional activities, pro-active approach in dealing with difficult situations and the ability to make decisions and take responsibility for success and failure in professional work, the support of students by academics, providing them with opportunities for improvement and self-management and initiative, the readiness to participate in dialogue and demonstrations of motivation of academics to carry out their duties and tasks — also score high.

2. The Professional-pedagogical profile occupies the second position according to the level of relevance. This finding is a positive message in the situations when the parametric data on output of scientific-research activities is required with evaluation of academic institutions (usually presented in the form of the so often criticised rankings) instead of the pedagogical tasks and duties and the results of the education of students.

3. The Academic profile occupies the third position according to the observed level of relevance. It should not surprise us that at the same time its relevance for students is even lower level than for academics.

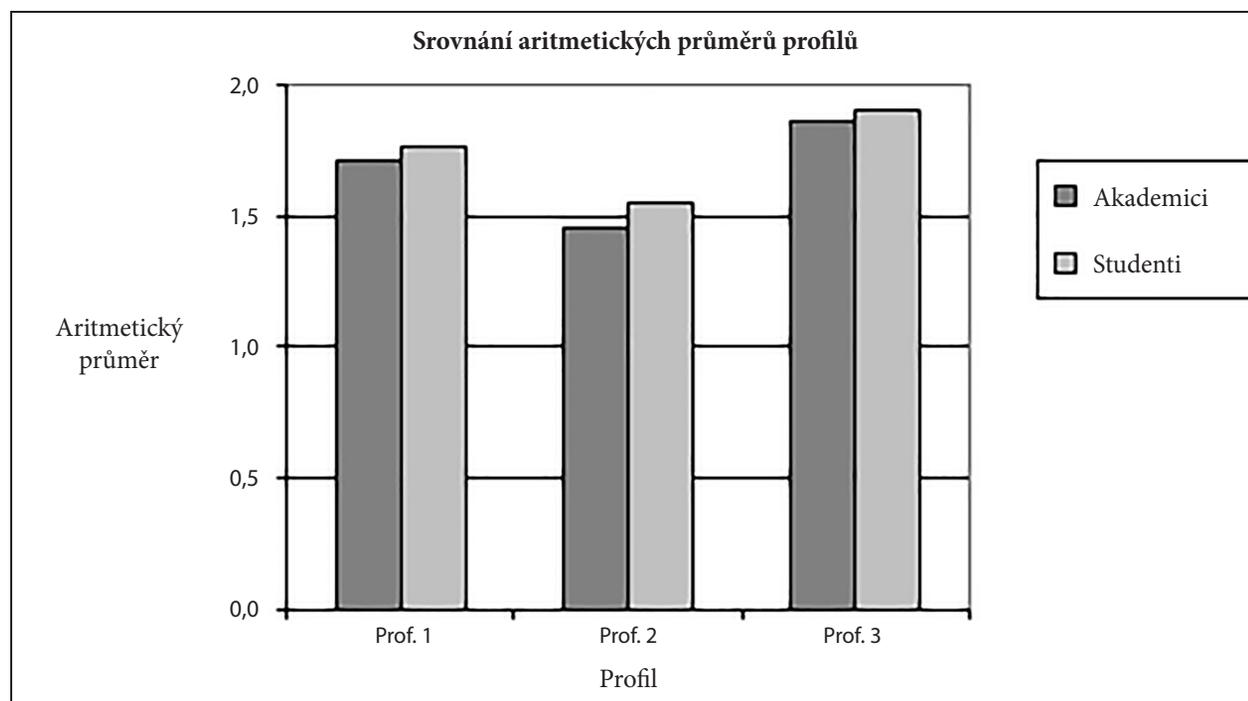
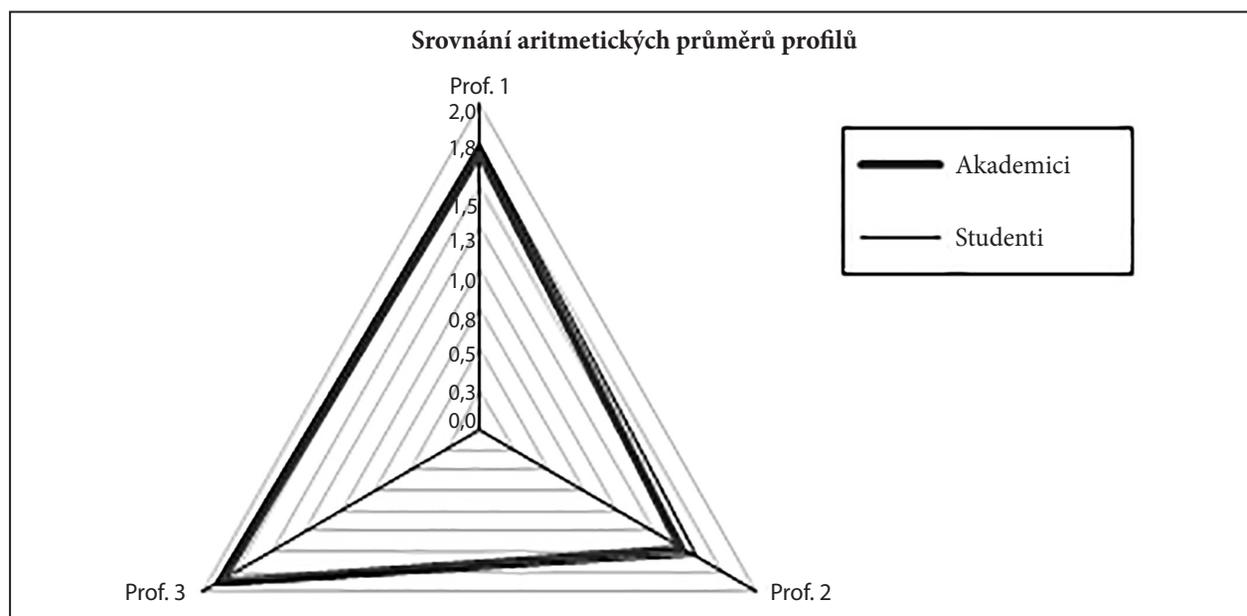


Figure 14: Arithmetic averages of the defined levels of relevance of professional profiles for academics and students



*Figure 15: Graphic comparison of arithmetic averages of the levels of relevance for professional profiles defined by academics and students*

Main findings resulting from testing the hypotheses

1. Statistically relevant differences in the perception of particular profiles at all the levels of relevance 0,05 were found within the group of academics.

2. Statistically relevant differences in the perception of particular profiles in all the levels of relevance 0,05 were also found in the group of students.

3. There were no statistically relevant differences in the perception of the importance of competences included in profile 2 with the group of academics. The views of academics are thus quite homogenous.

4. There were statistically relevant differences in most of the competences, except for the competences in Profile 2 on the level of importance 0,001 with the group of students.

*Table 2*

TESTING STATISTICALLY IMPORTANT DIFFERENCES  
IN THE PERCEPTION OF THE PROFILES BY ACADEMICS AND STUDENTS

Students						
Academics	Profile 1		Profile 2		Profile 3	
<b>Profile 1</b>	p = 0,05	3,66E-01	p = 0,05	3,83E-03	p = 0,05	0,003323
	p = 0,01	3,59E-01	p = 0,01	3,83E-03	p = 0,01	0,003323
	p = 0,001	3,59E-01	p = 0,001	3,83E-03	p = 0,001	0,003323
<b>Profile 2</b>	p = 0,05	2,38E-07	p = 0,05	3,97E-02	p = 0,05	7,62E-10
	p = 0,01	2,38E-07	p = 0,01	3,97E-02	p = 0,01	7,62E-10
	p = 0,001	2,38E-07	p = 0,001	3,97E-02	p = 0,001	7,62E-10
<b>Profile 3</b>	p = 0,05	0,1826	p = 0,05	1,50E-06	p = 0,05	4,98E-01
	p = 0,01	0,1826	p = 0,01	1,50E-06	p = 0,01	4,98E-01
	p = 0,001	0,098279	p = 0,001	1,50E-06	p = 0,001	4,98E-01

Legend: p — values;  
grey background signifying statistically important differences

5. There were statistically important differences between the competences included in Profiles 1 and 3 within both the academic and the student group.

6. From *Table 2* (p. 68) it can be concluded that there are statistically important differences in the perception of Profile 1 and Profile 3 between the group of academics and students in all the determined levels of significance.

7. Nevertheless, it has been proved during the comparison of perception of the importance of Profile 2 that there are statistically important differences between academics and students only at level of significance 0,05.

In general, it can be stated that the views of academics and the views of students on the significance of professional competences and professional profiles of academic personnel are close to each other. This fact creates positive conditions for their mutual communication and co-operation in fulfilling the goals of university education.

***Results of statistical analyses  
of the relation between competence  
preferences and profiles of academics  
and students and their personal  
characteristics for the Czech Republic***

It is clear from the results of the testing of hypothesis that “there are no differences in the views on their importance in all the three profiles” with the Kruskal-Wallis method that on the contrary an overall variety has been identified in the views of the academics. Academics, therefore, do not have identical views in all the profiles at the same time.

On testing the same hypothesis for students using an identical method, an overall variety in the views has been identified. Students, therefore, do not have the same views in all the profiles at the same time. This corresponds to the particular averages from the description.

From the results of testing the three hypotheses with the Mann-Whitney method postulating that “there are no differences in views of academics and views of students on the relevance of each of the three professional profiles” a variety has been identified within the framework of comparison of different views in Profile 2. A concordance has been identified within the framework of comparison of the view in Profile 1 and Profile 3.

An overall variety has been identified within the framework of the competence comparison during the statistical analysis academics’ views on the importance of competences among all the competences at the same time. A concordance has been identified within the framework of view comparison in competences C2.1–C2.4.

An overall variety has been identified while testing the same hypothesis for students with the identical method within the framework of competence views. Therefore students do not have the same views in all the competences at the same time.

Analysis of statistically significant connection between the level of views of profiles and the sex of the academics (meaning if there is a link between the sex of the respondent and the level of views of profiles. The findings were that a) there is no statistically significant link between the level of the views of Profile 1 and the sex of the respondent, b) there is no statistically significant link between the level of views of Profile 2 and the sex of the respondent, and c) there is no statistically significant link between the level of views of Profile 3 and the sex of the respondent.

No statistically significant connection between the level of views of Profile 1, Profile 2, or Profile 3 and the length of respondents’ (academics’) professional experience was identified.

No statistically significant connection between the level of views of Profile 1, Profile 2, or Profile 3 and the level of respondents’ (academics’) qualification was identified.

No statistically significant connection between the level of views of Profile 1, Profile 2, or Profile 3 and the respondents’ (students’) year of study at university was identified.

***Results for the Czech Republic  
in comparison with results of partner  
countries of the project***

The research group from all four partner countries was composed of 992 members of academic community at four universities. Out of these, 326 were academics and 666 were students. Answers from 73 academics and 150 students came from the Czech Republic, from Slovakia (in the same order in all cases) 65 and 83 answers, from Poland 63 and 164 answers, and from the Ukraine 125 and 269 answers.

The values of averages for particular countries and the average value calculated from the data of all the four countries (shortly Visegrad, although in fact only the Czech Republic, Poland, and Slovakia belong to this group) were used for the analysis of the differences between the perception of particular competences by academics.

### Academics

Academics in the Visegrad countries appreciate the following three competences the most: C 3.5 *Academic integrity*, C 2.2 *Professional and personal responsibility* and competence C 2.1 *Socio-cultural*. In total they can be considered character-personality parameters of academic staff. Academics in Czech Republic mostly preferred two competences with the same value of average: C 3.5 *Academic integrity*, C 2.2 *Professional and personal*

*responsibility*. In Poland, Slovakia and the Ukraine academics mostly preferred competence C 3.5 *Academic integrity*, in Poland more noticeably than in the remaining three countries.

The least preferred competences in the Visegrad countries are competence C 1.3 *Digital competence*, C 3.3 *Scientific PR*, and with the same value competence C 3.4 *Methodological* and the competence C 1.1 *Innovative*. In the Czech Republic, academics consider the competence C 3.3 *Scientific PR* the least significant. In Poland, academics prefer the competence C 1.3 *Digital* the least, and that with scoring the highest value of all the four countries. In Slovakia, academics value the significance of competence C 3.1 *Research* the least. Ukrainian academics value the significance of competence C 3.2 *International cooperation* the least.

Table 3

COMPARISON OF THE AVERAGES OF LEVELS OF ACADEMICS' VIEWS IN PARTICULAR COMPETENCES FOR VISEGRAD COUNTRIES

Academics	C 1.1	C 1.2	C 1.3	C 1.4	C 1.5	C 2.1	C 2.2	C 2.3	C 2.4	C 3.1	C 3.2	C 3.3	C 3.4	C 3.5
Czech Rep.	1,80	1,51	1,85	1,61	1,75	1,49	1,34	1,46	1,56	1,76	1,84	2,03	2,02	1,34
Poland	2,20	1,39	2,45	1,83	2,17	1,44	1,29	1,41	1,45	1,73	1,83	1,99	1,83	1,17
Slovakia	1,90	1,63	1,94	1,73	1,93	1,49	1,47	1,56	1,79	1,96	1,83	1,85	2,17	1,28
Ukraine	1,78	1,38	1,62	1,42	1,68	1,33	1,23	1,41	1,50	1,71	1,87	1,84	1,65	1,22
Visegrad	1,92	1,48	1,96	1,65	1,88	1,44	1,33	1,46	1,58	1,79	1,84	1,93	1,92	1,25

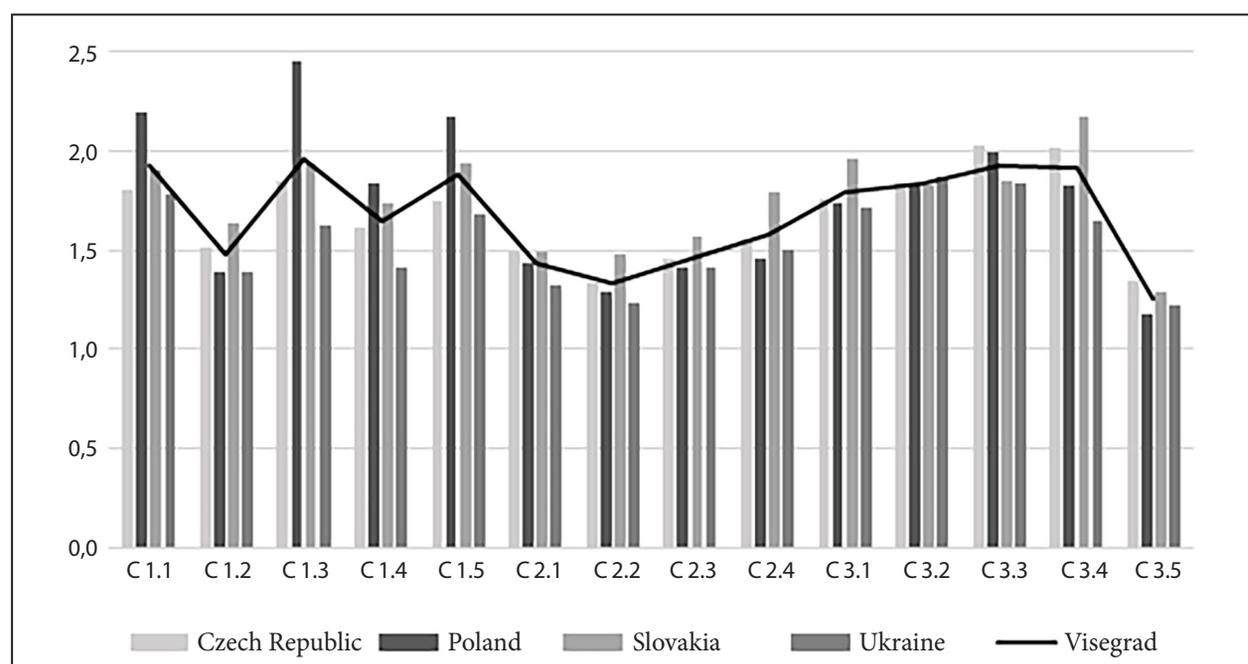


Figure 16: Visualisation of comparing the levels of views of academics for competences according to countries

Table 4

COMPARISON OF THE AVERAGE LEVELS OF ACADEMICS' VIEWS FOR PARTICULAR PROFILES WITH THE VISEGRAD COUNTRIES

Academics	Profile 1	Profile 2	Profile 3
Czech Rep.	1,71	1,46	1,86
Poland	2,02	1,40	1,78
Slovakia	1,84	1,55	1,90
Ukraine	1,58	1,35	1,71
Visegrad	1,79	1,44	1,81

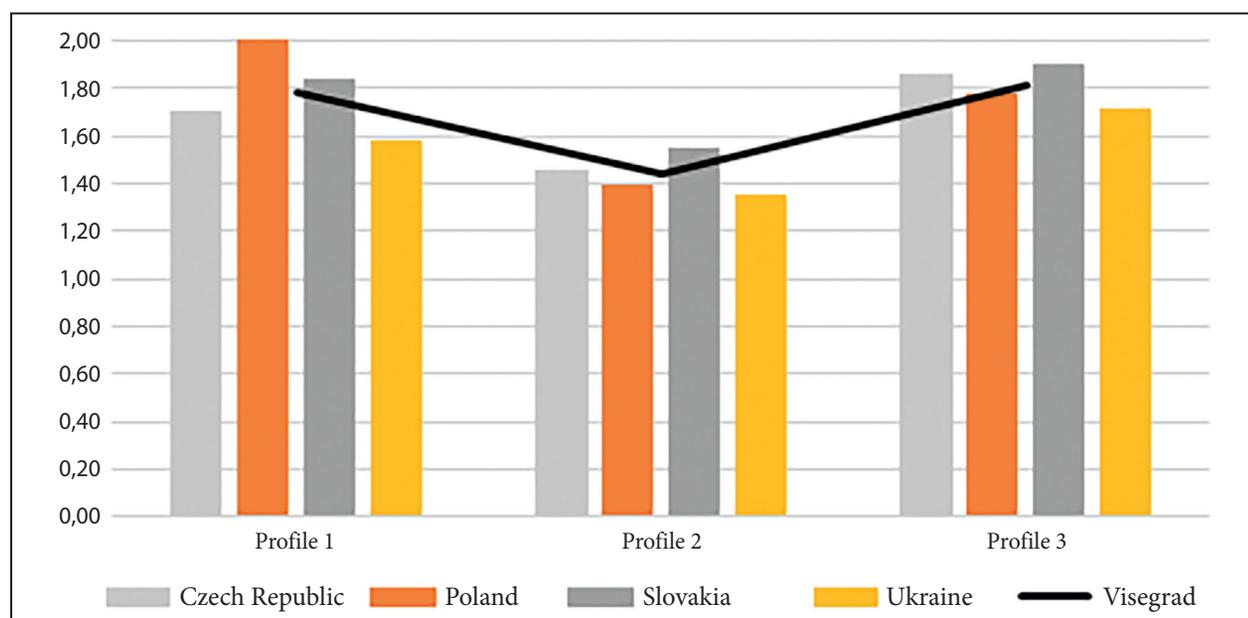


Figure 17: Visualisation of the comparison of average levels of academics' views for individual Visegrad countries

Academics in the Visegrad countries value Profile 2: Social-personal the most. In the Czech Republic, Slovakia, Poland and the Ukraine the situation is the same: academics always prefer Profile 2 the most, which is mostly visible with the Ukraine and the least with Slovakia

The least preferred professional profile with the Visegrad countries is Profile 3: **Academic (Scientific)**. In the Czech Republic, Slovakia and the Ukraine the least preferred profile is Profile 3, too, on the other hand in Poland it is quite surprisingly rather (significantly) the least preferred profile, Profile 1: **Professional-pedagogical**.

### Students

Students in Visegrad countries value the following three competences in the order C 2.2 Professional and personal responsibility

and competence 3.5 *Academic integrity, fairness (integrity)* and competence C 2.4 *Civic* the most. These can be generally considered as the character-personal parameters of academics.

In the Czech Republic, students prefer the most the three competences in this order: C 2.2 *Professional and personal responsibility* and then with the same value of average competence C 2.3 *Leadership*. In Poland, students prefer the most the competence C 2.4 *Civic* and at the second place competence C 2.2 *Professional and personal responsibility*.

In Slovakia, students prefer the most competence C 2.2 *Professional and personal responsibility* and after that competence C 2.3 *Leadership*.

In the Ukraine, students prefer the most competence C 3.5 *Academic integrity* and after that competence C 2.2 *Professional and personal responsibility*.

The value 1,33 for competence C 3.5 *Academic integrity* in the Ukraine shows that it is the most preferred competence for students in all the four countries.

Competences preferred the least by the students at partner universities were the following three competences, concretely: C 1.3 *Digital competence*, after that competence C 3.2 *International*

*cooperation* and at the third place competence C 3.4 *Methodological*.

Students in the Visegrad countries value Profile 2: *social-personal* the most. In the Czech Republic, Slovakia, Poland and the Ukraine the results are the same: academics always showed preference for Profile 2. It is the most apparent with the Ukraine and the least for Slovakia.

Table 5

COMPARISON OF AVERAGE LEVELS OF STUDENTS' VIEWS FOR INDIVIDUAL COMPETENCES IN VISEGRAD COUNTRIES

Students	C1.1	C1.2	C1.3	C1.4	C1.5	C2.1	C2.2	C2.3	C2.4	C3.1	C3.2	C3.3	C3.4	C3.5
Czech Rep.	1,74	1,61	1,91	1,64	1,83	1,64	1,45	1,55	1,55	1,90	1,92	1,88	2,01	1,53
Poland	1,66	1,46	1,98	1,70	1,80	1,50	1,42	1,48	1,39	1,66	1,80	1,77	1,72	1,43
Slovakia	1,77	1,67	2,03	1,64	1,94	1,59	1,53	1,57	1,60	1,99	2,00	1,73	2,02	1,60
Ukraine	1,54	1,41	1,51	1,41	1,54	1,42	1,36	1,38	1,39	1,51	1,54	1,51	1,46	1,33
Visegrad	1,68	1,54	1,86	1,60	1,78	1,53	1,44	1,49	1,48	1,77	1,81	1,72	1,80	1,47

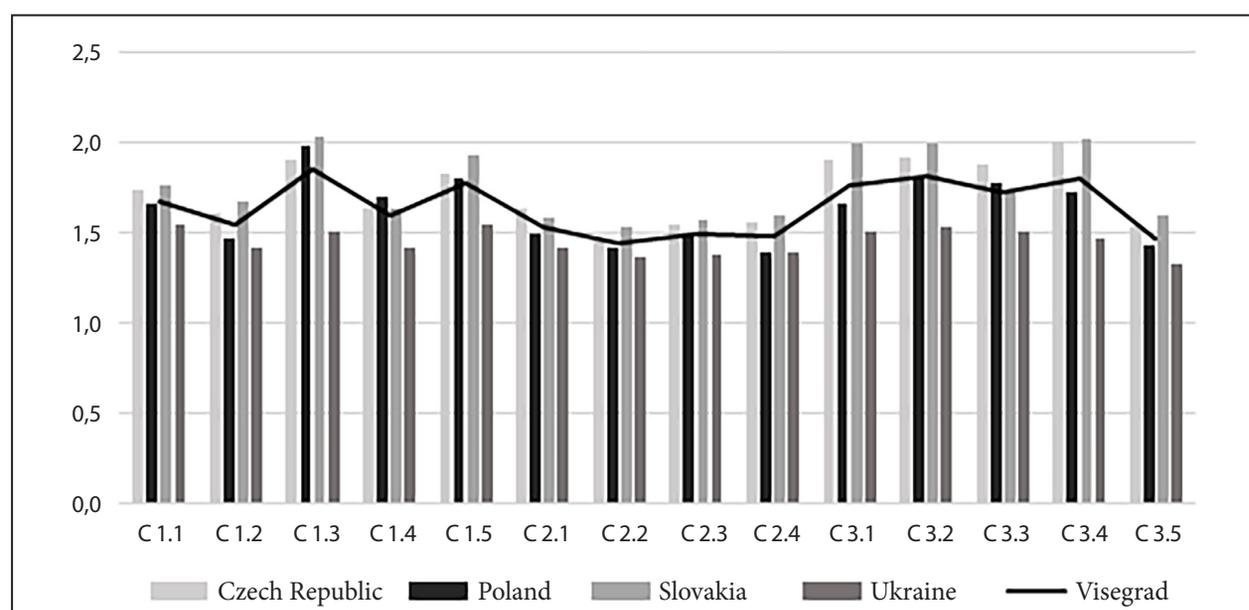


Figure 18: Visualisation of comparing the levels of students' views with competences across the partner countries

Table 6

RESULTS FOR PROFILE IN PARTNER COUNTRIES

Students	Profile 1	Profile 2	Profile 3
Czech Rep.	1,76	1,55	1,90
Poland	1,73	1,46	1,72
Slovakia	1,83	1,57	1,92
Ukraine	1,49	1,39	1,49
Visegrad	1,70	1,49	1,76

Profile 3 *Academic* is the least preferred professional profile with students in the Visegrad countries. In the Czech Republic, Slovakia and the Ukraine the least preferred profile was also Profile 3 (in the Ukraine also Profile 1 with the same value scored). On the other hand, in Poland the least preferred profile is rather surprisingly Profile 1 *professional-pedagogical*.

In Table 7, it can be observed that there is an absolute agreement among academics from the four countries

on professional competence C 3.5. *Academic integrity*. Students differ more in their views but they still tend to prefer competence C 2.2 *Professional and personal responsibility* in two of the countries. The most preferred competences by academics of all the countries differ from the competences preferred by students of all the countries, too. For academics it is the competence C 3.5 *Academic integrity*, while for students it is the competence C 2.2 *Professional and personal responsibility*.

Table 7

PROFESSIONAL COMPETENCES AND PROFILES WITH THE HIGHEST AND LOWEST LEVELS OF RELEVANCE IN PARTNER COUNTRIES

	Academics	Students
<b>Most preferred competence</b>		
Czech Republic	C 3.5 Academic integrity and C 2.2 Prof. and personal responsibility	C 2.2 Prof. and personal responsibility
Poland	C 3.5 Academic integrity	C 2.4 Civic
Slovakia	C 3.5 Academic integrity	C 2.2 Prof. and personal responsibility
Ukraine	C 3.5 Academic integrity	C 3.5 Academic integrity
Visegrad	C 3.5 Academic integrity	C 2.2 Prof. and personal responsibility
<b>Least preferred competence</b>		
Czech Republic	C 3.3 Scientific PR	C 3.4 Methodological
Poland	C 1.3 Digital	C 1.3 Digital
Slovakia	C3.1 Research	C 1.3 Digital
Ukraine	C 3.2 International cooperation	C 1.1 Innovative, C 1.5 Management C 3.2 International cooperation
Visegrád	C 1.3 Digital	C 1.3 Digital
<b>Most preferred profile</b>		
Czech Republic	Profile 2: <i>social-personal</i>	Profile 2: <i>social-personal</i>
Poland	Profile 2: <i>social-personal</i>	Profile 2: <i>social-personal</i>
Slovakia	Profile 2: <i>social-personal</i>	Profile 2: <i>social-personal</i>
Ukraine	Profile 2: <i>social-personal</i>	Profile 2: <i>social-personal</i>
Visegrád	Profile 2: <i>social-personal</i>	Profile 2: <i>social-personal</i>
<b>Least preferred profile</b>		
Czech Republic	Profile 3: <i>academic</i>	Profile 3: <i>academic</i>
Poland	Profile 1: <i>professional-pedagogical</i>	Profile 1: <i>professional-pedagogical</i>
Slovakia	Profile 3: <i>academic</i>	Profile 3: <i>academic</i>
Ukraine	Profile 3: <i>academic</i>	Profile 3: <i>academic</i>
Visegrád	Profile 3: <i>academic</i>	Profile 3: <i>academic</i>

On comparing the competences with the lowest level of relevance, it can be seen that it is a different competence in every country. It is an identical competence with the lowest relevance (C 1.3 *Digital*) in two countries. In both the subgroups the C 1.3 *Digital* competence is the competence with the lowest relevance.

The most preferred professional profile is the Profile 2 *social-personal* — which is valued by academic staff in all the countries, by students in all the countries and also by both of the subgroups within the framework of the whole aggregate — for all academics and all students.

The least preferred professional profile is Profile 3 *academic*. It is true for academics in all the countries, except Poland, for students in all the countries, except Poland, and also for both the subgroups within the framework of the whole aggregate — for all academics and all students. With the Ukraine the same value is returned with preferences for Profile 1 *professional-pedagogical*, too.

### ***Discussion of results and discussion***

A discussion of the results seems to be more suitable with regards to the methodological questions of the research. The above declared need for using the research questionnaire as a unified instrument because of the declared goals of the research project in the four countries could have brought higher differences among the median values of the particular competences and also the profiles. The application of a special, tailor-made questionnaire with differently defined competences of academic personnel than from those used with other competence models did not allow a comparison of calculated values with the values found by different research projects. An availability of results from similar-based research projects would probably make it possible to assess only a certain balance of views of the professional profiles and potentially also the importance of differences in views between academic staff and students.

The systems of quality management at universities rightly assign importance to the quality of their academic personnel. The ideas about professional readiness to perform the profession of an academic, which usually stems from the factual duality of his/her profession divided between the educational and the scientific-research activity, are available.

None of the defined competences is unimportant according to respondents' views of the — it does not approach the value of 3.

In the Czech Republic, the competence to perform scientific public relations was assessed as having the lowest significance altogether by academic staff themselves. On the contrary, the highest median values of importance out of the 14 competences was achieved by competence C 3.5 *Academic integrity*. This could be a defensive attitude of the academic community that responds to the general conditions in the society where this characteristic or competence is debased. According to the values of average important competences included within the three professional profiles, the first place is occupied by Profile 2 *Social-personal* for both academics and students, followed by Profile 1 *Professional-pedagogical* and, finally, Profile 3 *Academic*.

Competence C 3.5 *Academic integrity*, especially for academics, has found an exceptional support in the partner countries. On the other hand, the competence C 1.3 *Digital* is valued very low. There is an unequivocal preference for Profile 2 *Social-personal* followed by Profile 1 *Professional-pedagogical*.

### ***Recommendations based on the results of the research***

The recommendations are divided into recommendations concerning the education of academic staff, the management of universities and the decision-making sector.

#### ***Recommendations concerning the realisation of educational needs of academic staff***

No obligation of undergoing some specific professional training at the start of one's academic profession or during the career promotion has been implemented for academics in the partner countries. Hand in hand with the changes of legal norms for university education taking place in the individual countries, this requirement is being discussed and certain solutions are being proposed both at the state level or the level of particular universities. In connection with improvement and intensification of the processes of securing internal quality, many universities have introduced recommended courses for academic personnel (or are preparing such), which are open to modification with their goals and content

on the basis of the above presented main research findings that have the character of up-to-date educational needs for academic staff. These could be shortly formulated as follows:

1. To be more profoundly and deeply concerned with issues of academic integrity and honesty of academic staff. To use Ethical codes and Ethical codes of research which have been ready (or are being prepared) by particular universities.

2. To be more dedicated to the questions of academics' professional and personal responsibility which can come to underestimation by understanding university students as the auto-regulating subjects within a university environment as well as to unsubstantiated overestimation of what is called academic liberties.

3. To handle the implementation of digital technologies in all the fields of academic work for academics in connection with the vision of Society 4.0 and within Education 4.0 framework.

4. To broaden other competences of academics within the framework of the social-personal profile, especially the competence of personal management, civic and social-cultural competences, into which the competence to perceive the young generation (university students) and their values, needs and views, also belongs.

#### **Recommendations to university management**

University managements should be able to ensure and provide:

- preparation of a professional code defining employees' and employer's duties. To establish the requirement of participating in an adaptation course for fresh academic personnel as well as other types of further professional education within the work code;
- clear division of work duties of academic staff for all the categories (assistant lecturer, lecturer, associate professor and professor);
- the use of the established distribution of work duties for creation of systematized job positions for academics;
- preparation of a career code for academic staff which would reflect the expectations

of the university from their academic staff concerning the three principal work duties from the perspective of qualification development, including the standard conditions for continuation of employment relationship (this would at the same time be related to the university salary scheme);

- preparation of an evaluation system of the university which would reflect current trends in the development of tertiary education and would become the basis for public appreciation of excellent performance for academic staff with their principal duties;
- exchange of documents and experience with university managements among universities within the home country and abroad for the sake of spreading best practices;
- creation of an ethical code, or a research ethical code respectively, and the securing of their effective implementation.

#### **Recommendations for the decision-making sector**

The Ministry of Education, Youth and Sports should direct their political, management and legislative efforts to achieve these goals:

- to achieve a significant increasing of finances for funding public universities and to ensure the rewarding of academic personnel in accordance with the general level common for developed countries (OECD);
- to ensure long time funding of creative (scientific and research) activities at universities with the goal of achieving excellent outcomes, stabilisation of research teams and motivation of academic staff to interconnect education and research, including involvement of students in the scientific and research activities;
- to ensure the implementation of generally accepted conditions for the achievement of higher qualification levels for academic staff. To do away with clientelism, to promote professional attitudes in the process of qualification growth and to prevent collective subjectivism of university and faculty research committees.

# SUMMARIZED RESULTS OF THE DEVELOPMENT OF ACADEMIC STAFF COMPETENCES IN UKRAINE, POLAND, SLOVAKIA AND CZECH REPUBLIC: STATISTICS AND ANALYTICS

In total 993 respondents participated in research “High School Lecturers’ Competencies in the Age of Changes”: 328 lecturers and 665 students. In the sample of lecturers, more women were registered — 247 persons (75,3 % of the total), men — 81 (24,7 %). According to the age criterion, the distribution is as follows: 127 persons aged 24–40 (38,7 %), 131 persons aged 41–55 (39,9 %), 70 persons aged over 56 years old (21,4 %). The most of lecturers (122 persons,

representing 37,2 %) have work experience of over 21 years, approximately the same number of lecturers have a work experience of up to 10 years (105 persons, 32 %) and from 11 to 20 years (101 persons, 30,8 %) the generalized data for the participating countries of the project is presented in *Table 1*.

The next step of the research was to find out how the teachers evaluate the various components of competence profiles according to the established “yes” statement (see *Table 2*).

*Table 1*

THE GENERALIZED STATISTICAL DATA ACCORDING TO A SAMPLE OF TEACHERS

	In total	Men	Women	Age			Work experience		
				25–40	41–55	56–	Up to 10	11–20	21–
Ukraine	125	17	108	58	45	22	44	35	46
		13,6 %	86,4 %	46,4 %	36,0 %	17,6 %	35,2 %	28,0 %	36,8 %
Poland	63	15	48	22	31	10	19	23	21
		23,8 %	76,2 %	34,9 %	49,2 %	15,9 %	30,2 %	36,5 %	33,3 %
Czech Republic	73	31	42	23	34	16	25	22	26
		42,5 %	57,5 %	31,5 %	46,6 %	21,9 %	34,2 %	30,1 %	35,7 %
Slovakia	67	18	49	24	21	22	17	21	29
		26,9 %	73,1 %	35,8 %	31,3 %	32,9 %	25,4 %	31,3 %	43,3 %
In total	328	81	247	127	131	70	105	101	122
		24,7 %	75,3 %	38,7 %	39,9 %	21,4 %	32,0 %	30,8 %	37,2 %

Table 2

THE EVALUATION OF COMPETENCE PROFILES  
ACCORDING TO THE ESTABLISHED “YES” STATEMENT BY LECTURERS

№	Competences	Ukraine, %	Poland, %	Czech Republic, %	Slovakia, %
<b>Professional-pedagogical profile</b>					
1	Attitude to the reforms	42,4	23,0	38,4	32,8
2	Professional self-improvement	67,5	66,7	56,6	47,8
3	Work with information and use of ICT	49,6	14,3	37,9	32,8
4	Interaction with students	64,8	39,7	51,4	42,5
5	Management of the educational process	44,8	24,6	38,4	32,1
<b>The average meaning</b>		<b>53,8</b>	<b>33,3</b>	<b>44,0</b>	<b>37,6</b>
<b>Social-personal profile</b>					
1	Pedagogical culture and ethics	69,4	63,5	58,8	56,3
2	Professional decision-making and responsibility for their consequences	77,9	73,5	68,5	57,2
3	Leadership qualities	61,9	63,0	59,8	51,2
4	Civic position	56,4	62,7	54,1	40,3
<b>The average meaning</b>		<b>66,4</b>	<b>65,7</b>	<b>60,1</b>	<b>51,3</b>
<b>Academic profile</b>					
1	Implementation of scientific research results into practice	44,4	46,1	39,1	29,9
2	Internationalization of education and science	38,9	43,9	34,7	29,4
3	Promoting your own research	44,0	35,7	28,9	35,8
4	Possession of scientific methodology and research tools	52,0	38,1	24,7	23,4
5	Academic virtue	80,8	82,5	67,1	74,6
<b>The average meaning</b>		<b>52,0</b>	<b>44,7</b>	<b>34,4</b>	<b>38,6</b>

Graphic interpretation of statistical data is shown in *Figures 1–3*.

According to the data that is presented in *Table 2*, respondents evaluate differently the competences of high school lecturers in each country, highlighting different priorities; however, it is possible to outline some trends:

- competences of social-personal profile are evaluated particularly high by all participating countries of the project (Ukraine 66,4 %, Poland 65,6 %, Czech Republic 60,3 %, Slovakia 51,3 %);

- respondents from Ukraine and Slovakia consider that competences of professional-

pedagogical and academic profiles have approximately the same significance for high school lecturer's activity (53,8 %, 52,0 % — Ukrainian sample, 37,6 %, 38,6 % — Slovakia sample);

- lecturers in Poland evaluate academic profile higher than professional-pedagogical (49,3 % and 33,7 % respectively);

- lecturers in Czech Republic consider that professional-pedagogical profile is more valid than academic (44,5 % and 38,9 % respectively).

The generalized data according to the samples of lecturers is given in *Figures 4, 5*.

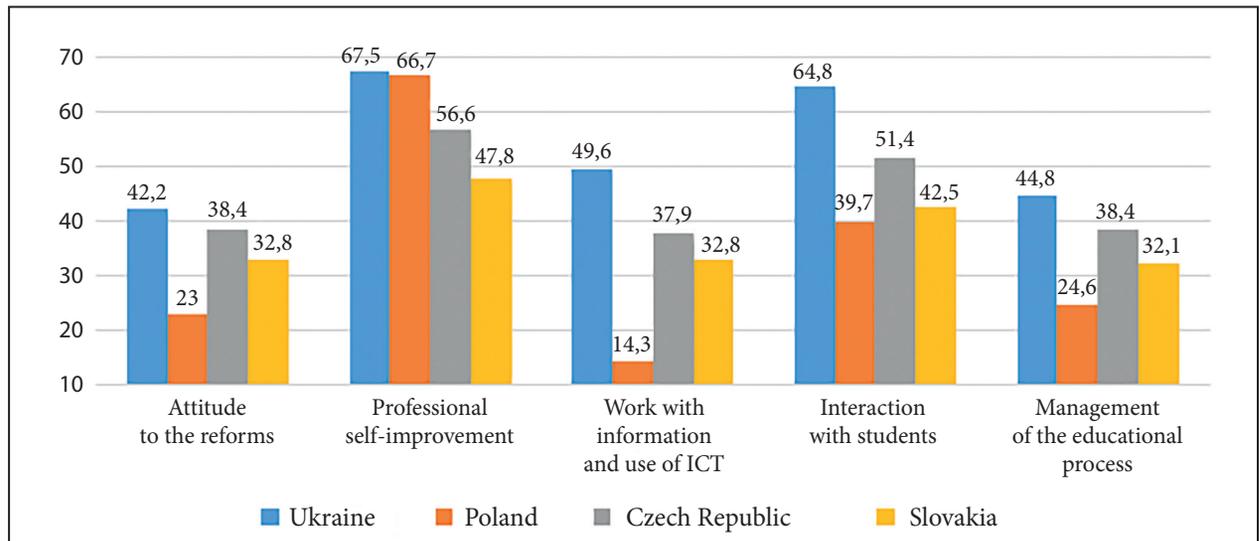


Figure 1: Professional-pedagogical profile (lecturers)

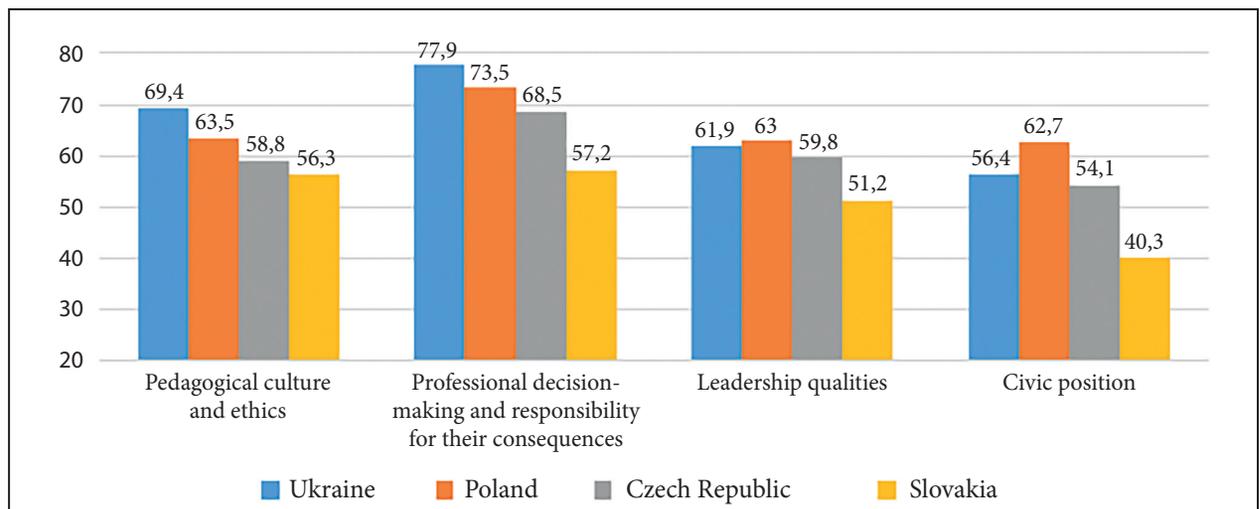


Figure 2: Social-personal profile (lecturers)

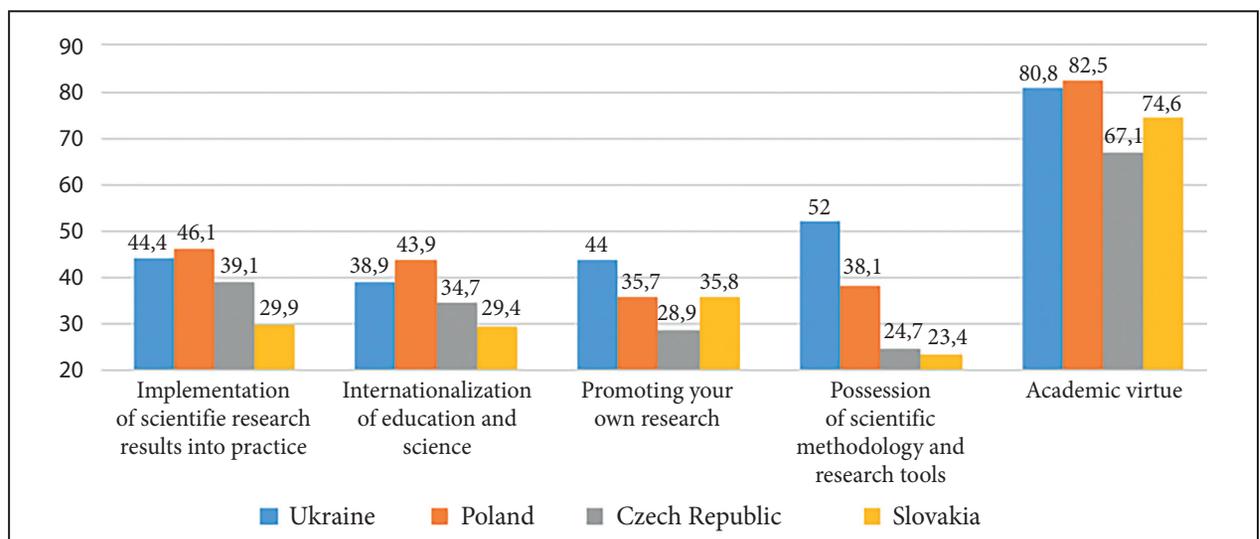


Figure 3: Academic profile (lecturers)

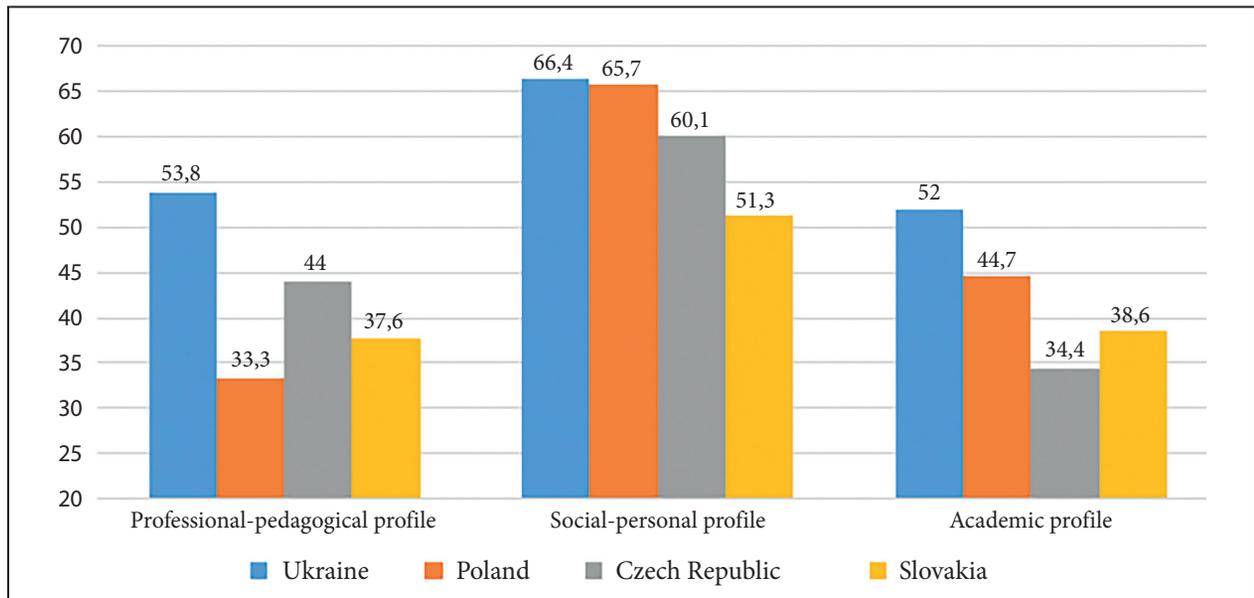


Figure 4: The generalized data (lecturers)

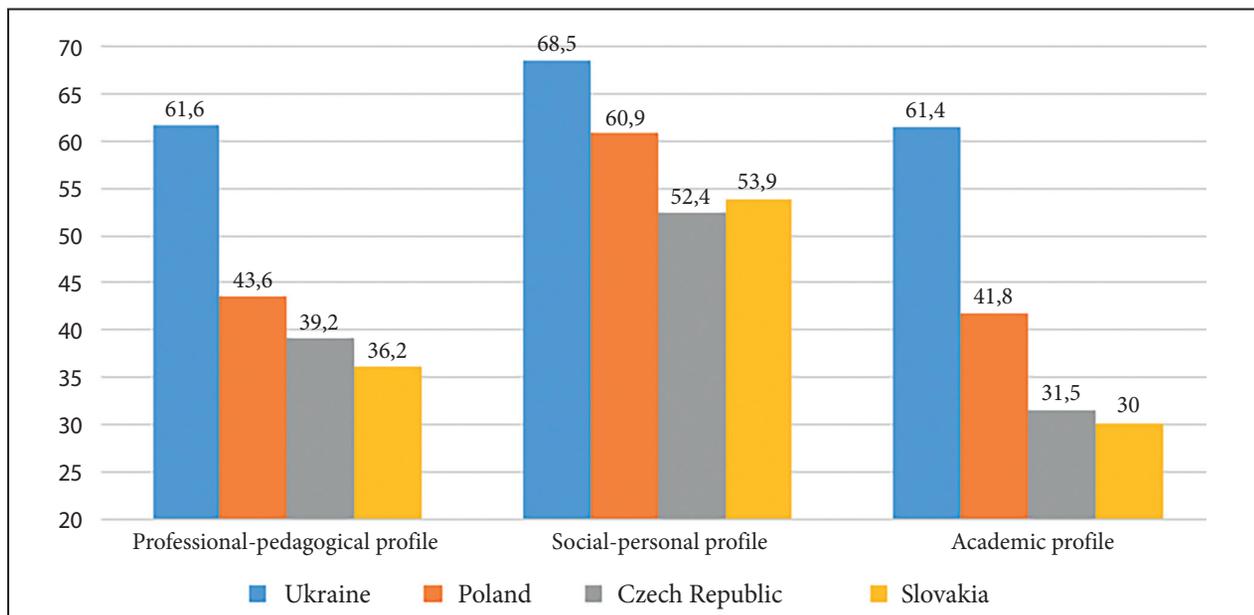


Figure 5: The generalized data (students)

It should be noted that university students, as well as lecturers, responded to questions from the questionnaire. It should be emphasized that if the lecturers who were involved in the survey carried out self-assessment of their professional activity, then students, responding to the research questions, determined their own expectations about the activity of high school lecturers, in fact developing the “perfect model” of a modern university lecturer.

Comparison of students’ expectations with lecturers’ self-esteem is presented in *Figure 6–9* (for each country separately).

The analysis of the data presented in *Figures 6–9* allows to generalize:

- as all-European trend affirms, in the most cases (7 to 5) lecturers’ level of self-esteem is higher than students’ expectations;

- however, the opposite trend is observed in Ukraine — the “ideal model” of a high school lecturer according to the students’ expectations is higher than real. This is especially evident while evaluating professional-pedagogical profile (53,8 % — lecturers, 61,6 % — students) and academic profile (52,0 % — lecturers, 61,4 % — students);

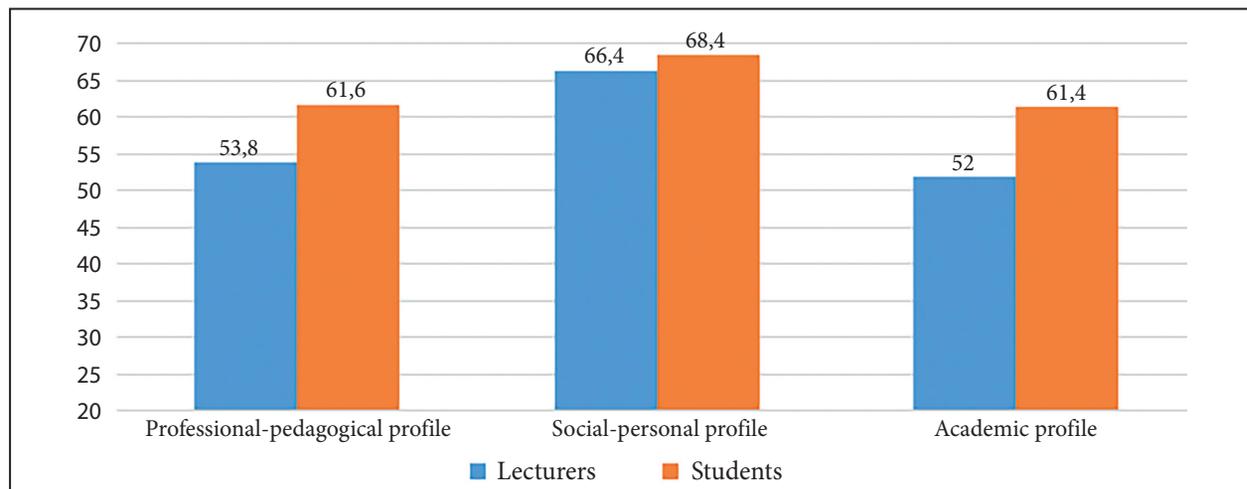


Figure 6: Comparison of views of lecturers and students on the competences of high school lecturers (Ukrainian sample)

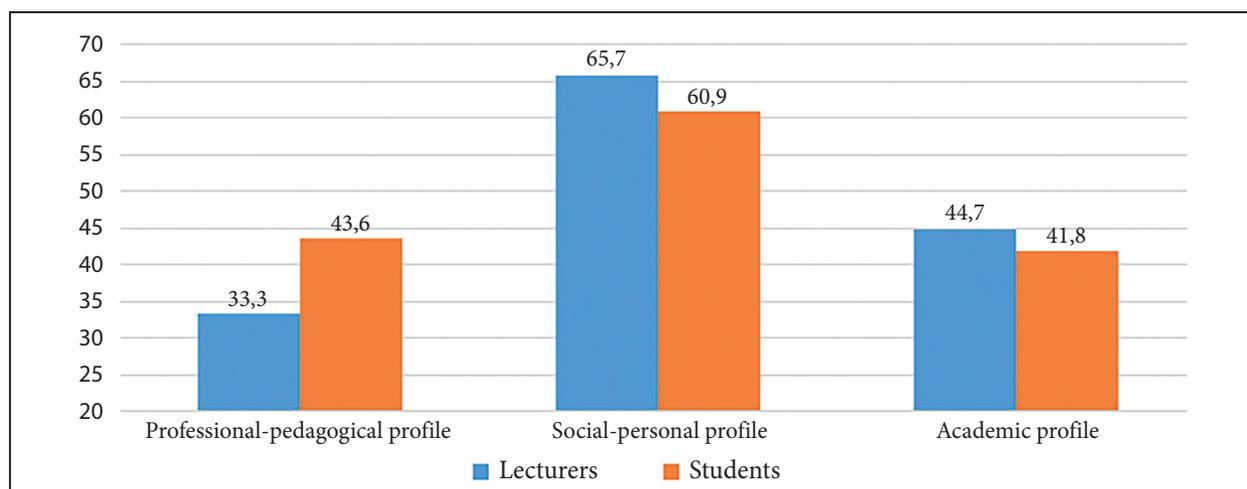


Figure 7: Comparison of views of lecturers and students on the competences of high school lecturers (Poland sample)

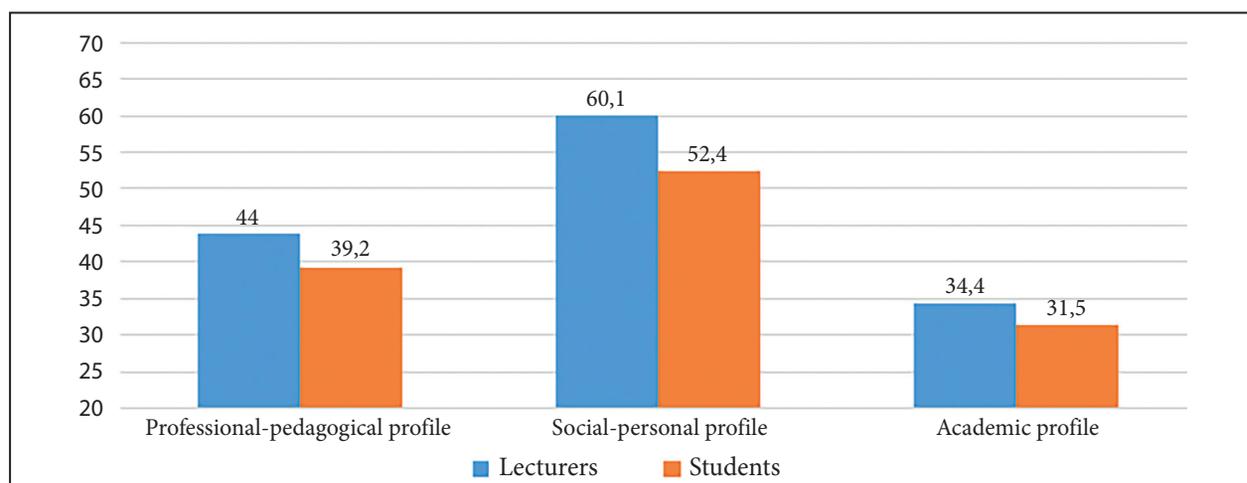


Figure 8: Comparison of views of lecturers and students on the competences of high school lecturers (Czech Republic sample)

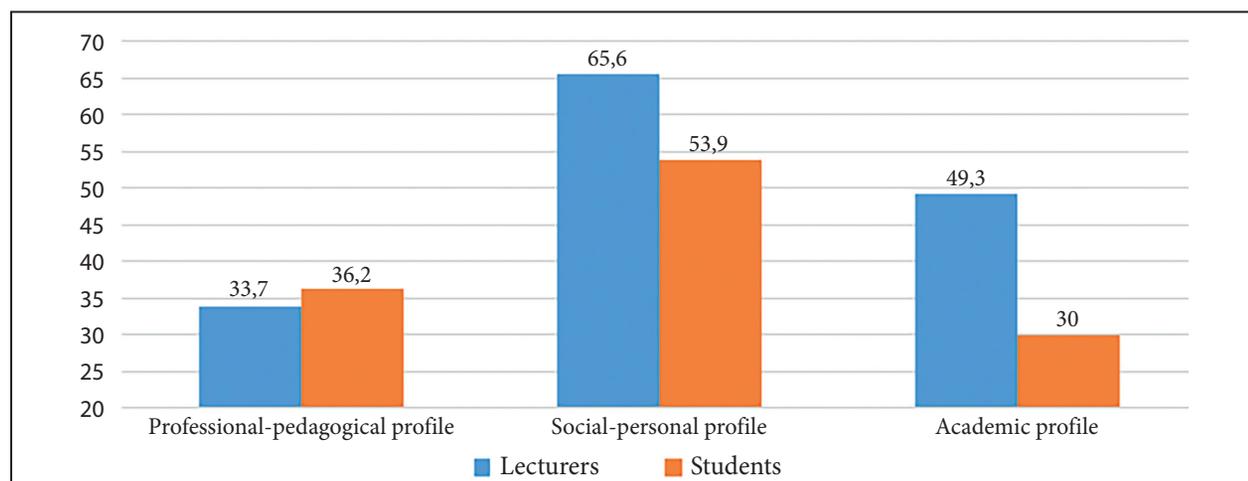


Figure 9: Comparison of views of lecturers and students on the competences of high school lecturers (Slovakia sample)

• the most distinct positive difference between lecturers' self-esteem and students' expectations can be seen in Slovakia sample: social-personal profile (65,6 % — lecturers, 53,9 % — students), academic profile (49,3 % — lecturers, 30,0 % — students).

Further, we introduce how the evaluation of competence according to the selected filters such as sex and age is realized by respondents:

Table 3 represents the female lecturers and male lecturers attitude to the research problem.

Table 3

#### GENERALIZED ARTICLE STATISTICS

№	Competences	Ukraine, %		Poland, %		Czech Republic, %		Slovakia, %	
		In total		In total		In total		In total	
		m	f	m	F	m	f	m	f
<b>Professional-pedagogical profile</b>									
1	Attitude to the reforms	42,4		23,0		38,4		32,8	
		44,1	42,2	23,3	22,9	32,5	42,9	44,5	26,6
2	Professional self-improvement	67,5		66,7		56,6		47,8	
		62,7	68,2	64,5	67,4	59,6	56,4	46,3	48,6
3	Work with information and use of ICT	49,6		14,3		37,9		32,8	
		50,9	49,4	13,3	14,6	27,9	45,2	42,6	29,2
4	Interaction with students	64,8		39,7		51,4		42,5	
		58,8	65,8	36,7	60,5	38,8	60,7	38,9	43,9
5	Management of the educational process	44,8		24,6		38,4		32,1	
		45,6	44,7	25,0	24,5	27,4	46,4	29,2	40,7
<b>The average meaning</b>		<b>52,4</b>	<b>54,1</b>	<b>32,6</b>	<b>37,9</b>	<b>37,2</b>	<b>50,3</b>	<b>40,3</b>	<b>37,8</b>

№	Competences	Ukraine, %		Poland, %		Czech Republic, %		Slovakia, %	
		In total		In total		In total		In total	
		m	f	m	F	m	f	m	f
<b>Social-personal profile</b>									
1	Pedagogical culture and ethics	69,4		63,5		58,8		56,3	
		63,2	70,4	46,7	68,8	51,4	60,7	51,4	58,2
2	Professional decision-making and responsibility for their consequences	77,9		73,5		68,5		57,2	
		70,6	79,1	66,7	75,7	61,3	73,8	66,7	53,7
3	Leadership qualities	61,9		63,0		59,8		51,2	
		54,8	62,9	60,0	63,8	53,8	64,3	55,5	49,6
4	Civic position	56,4		62,7		54,1		40,3	
		52,9	56,9	63,4	62,5	45,2	60,7	41,7	39,8
<b>The average meaning</b>		<b>60,4</b>	<b>67,3</b>	<b>59,2</b>	<b>67,7</b>	<b>52,9</b>	<b>64,9</b>	<b>53,8</b>	<b>50,3</b>
<b>Academic profile</b>									
1	Implementation of scientific research results into practice	44,4		46,1		39,1		29,9	
		50,0	43,5	46,7	45,8	32,3	44,1	27,8	30,6
2	Internationalization of education and science	38,9		43,9		34,7		29,4	
		41,2	38,6	44,5	43,8	37,6	32,6	20,4	42,8
3	Promoting your own research	44,0		35,7		28,9		35,8	
		50,0	43,1	43,4	33,4	33,9	22,6	33,3	36,8
4	Possession of scientific methodology and research tools	52,0		38,1		24,7		23,4	
		58,8	50,9	33,3	39,6	22,6	26,2	24,1	23,1
5	Academic virtue	80,8		82,5	67,1	74,6			
		88,2	79,6	66,7	87,5	64,5	69,1	77,8	73,5
<b>The average meaning</b>		<b>57,6</b>	<b>51,1</b>	<b>46,9</b>	<b>50,0</b>	<b>38,2</b>	<b>38,9</b>	<b>36,7</b>	<b>41,4</b>
<b>Total number of choices</b>		<b>8</b>	<b>6</b>	<b>6</b>	<b>8</b>	<b>3</b>	<b>11</b>	<b>7</b>	<b>7</b>

Legend: yellow color that is presented in the table indicates who exactly (men or women) gave a higher rating of each competence, expressing an established statement "yes".

The analysis of the data presented in the table allows to generalize:

- respondents of female sex more often (32 times) than men (24 times) express an established “yes” statement, that is considered by us as an indicator of lecturers’ actual readiness for change, determination of their own decisive position;
- both men and women from Ukraine, Poland and Slovakia approximately equally in total evaluate high school lecturers’ competencies; at the same

time female sex lecturers of Czech Republic choose an established “yes” statement more often than male (11 times to 3);

- evaluating social and personal profile female lecturers of Ukraine and Czech Republic express an established “yes” statement more often than male ones.

Graphic interpretation of the results is presented in *Figures 10, 11*.

The following data are presented according to the “age” filter analysis (see *Table 4*).

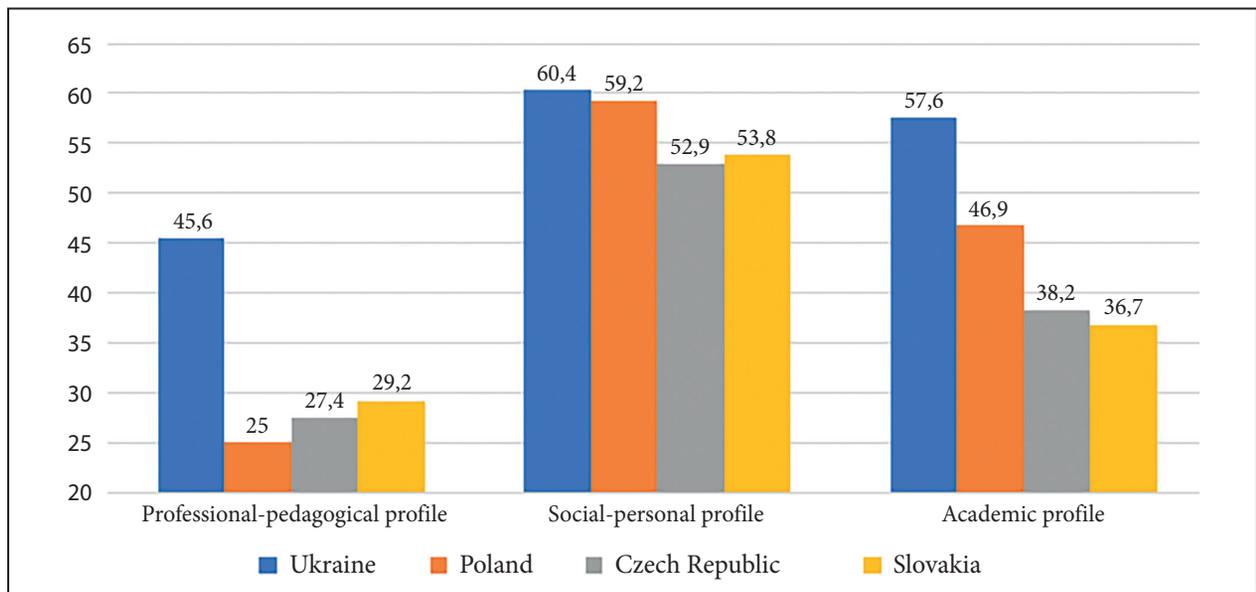


Figure 10: Generalized data (lecturers, men)

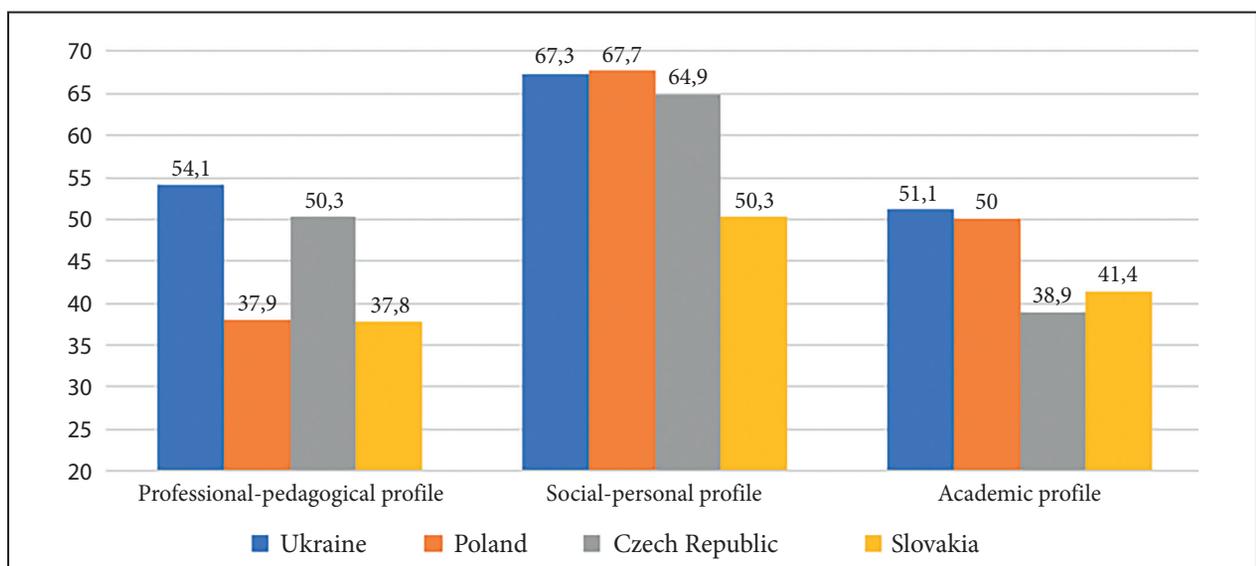


Figure 11: Generalized data (lecturers, women)

Table 4

## GENERALIZED STATISTICS ACCORDING TO THE AGE

№	Competences	Ukraine, %			Poland, %			Czech Republic, %			Slovakia, %		
		In total			In total			In total			In total		
		25-40	41-55	56-	25-40	41-55	56-	25-40	41-55	56-	25-40	41-55	56-
<b>Professional-pedagogical profile</b>													
1	Attitude to the reforms	42,4			23,0			38,4			32,8		
		44,0	37,8	47,8	11,4	29,1	30,0	45,6	36,9	40,7	39,6	35,7	22,8
2	Professional self-improvement	67,5			66,7			56,6			47,8		
		69,5	65,9	65,2	59,1	74,2	60,0	53,6	58,8	56,3	47,2	46,1	49,9
3	Work with information and use of ICT	49,6			14,3			37,9			32,8		
		49,4	48,1	53,1	15,2	17,3	3,3	49,3	30,9	29,2	29,1	36,5	33,4
4	Interaction with students	64,8			39,7			51,4			42,5		
		64,7	61,1	72,7	38,4	45,2	25,0	54,4	54,4	46,9	33,4	50,0	45,5
5	Management of the educational process	44,8			24,6			38,4			32,1		
		42,3	43,3	54,6	16,9	32,3	17,5	39,1	38,3	37,5	28,1	34,5	46,6
<b>The average meaning</b>		<b>53,9</b>	<b>51,2</b>	<b>58,7</b>	<b>28,2</b>	<b>39,6</b>	<b>27,2</b>	<b>48,4</b>	<b>43,9</b>	<b>42,1</b>	<b>35,5</b>	<b>40,6</b>	<b>39,6</b>
<b>Social-personal profile</b>													
1	Pedagogical culture and ethics	69,4			63,5			58,8			56,3		
		70,3	65,2	71,6	54,6	70,1	62,5	57,7	54,4	60,9	50,0	60,7	59,1
2	Professional decision-making and responsibility for their consequences	77,9			73,5			68,5			57,2		
		75,3	78,5	83,3	59,1	83,9	73,3	69,6	69,6	64,6	54,2	63,5	59,0
3	Leadership qualities	61,9			63,0			59,8			51,2		
		61,5	60,7	65,1	57,6	64,5	70,0	59,4	66,7	45,9	52,8	53,9	46,7
4	Civic position	56,4			62,7			54,1			40,3		
		57,8	51,1	63,7	56,9	69,3	55,0	56,5	54,4	50,0	39,6	38,1	43,2
<b>The average meaning</b>		<b>66,2</b>	<b>63,9</b>	<b>70,9</b>	<b>57,1</b>	<b>71,9</b>	<b>65,2</b>	<b>60,8</b>	<b>61,3</b>	<b>55,4</b>	<b>49,2</b>	<b>54,1</b>	<b>52,0</b>

№	Competences	Ukraine, %			Poland, %			Czech Republic, %			Slovakia, %		
		In total			In total			In total			In total		
		25-40	41-55	56-	25-40	41-55	56-	25-40	41-55	56-	25-40	41-55	56-
<b>Academic profile</b>													
1	Implementation of scientific research results into practice	44,4			46,1			39,1			29,9		
		46,6	38,9	50,0	34,2	58,1	35,0	41,3	39,7	34,4	31,3	30,9	27,3
2	Internationalization of education and science	38,9			43,9			34,7			29,4		
		42,5	34,8	37,6	30,3	50,5	3,3	41,9	20,6	35,4	33,3	44,4	33,3
3	Promoting your own research	44,0			35,7			28,9			35,8		
		44,9	35,6	58,9	29,6	41,9	30,0	32,6	22,1	31,3	37,5	35,8	34,1
4	Possession of scientific methodology and research tools	52,0			38,1			24,7			23,4		
		51,7	51,1	54,5	33,3	43,0	33,3	29,0	19,6	29,2	29,2	23,8	16,7
5	Academic virtue	80,8			82,5			67,1			74,6		
		79,3	80,0	86,4	77,3	87,1	80,0	60,9	73,5	62,5	70,8	76,2	77,3
<b>The average meaning</b>		<b>53,0</b>	<b>48,1</b>	<b>57,5</b>	<b>40,9</b>	<b>56,1</b>	<b>36,3</b>	<b>41,1</b>	<b>35,1</b>	<b>38,6</b>	<b>40,4</b>	<b>42,2</b>	<b>37,7</b>
<b>Total number of choices</b>		<b>2</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>13</b>	<b>1</b>	<b>8</b>	<b>6</b>	<b>2</b>	<b>3</b>	<b>7</b>	<b>4</b>

The analysis of the data presented in the *Table 4* allows to generalize:

- if to take into account all-European tendencies, the most productive, open to change is the age of 41–55 years (representatives of this age more often than others, namely, 26 times evaluate high school lecturers' competences according to the established "yes" statement), the smallest number of choices among lecturers aged from 25 to 40 years old (13 times);

- at the same time, the opposite situation has been recorded in Ukraine — representatives aged from 56 years (12 times) evaluate lecturers' competencies the most highly, especially clearly it is traced while evaluating social-personal profile. Respondents aged from 25 to 40 are only twice as likely as others to evaluate the competencies of high school lecturers. consider the age from 41 to 55 is considered as problematic —

representatives of this age express an indirect attitude to all components of competencies profiles;

- similar situation is noted in the Polish sample, but there, unlike Ukraine, the most productive is the age from 41 to 55 years (13 choices); this tendency is most clearly traced within the academic profile;

- the most balanced situation is in the Czech Republic and Slovakia, where representatives of all age groups in total are leaders in evaluating various competencies. At the same time, it should be noted that lecturers of the Czech Republic aged from 56 years are the least decisive in evaluating the professional-pedagogical profile, lecturers in Slovakia aged from 56 years are the least decisive in evaluating academic profile.

Graphic interpretation of the results is presented in *Figures 12–14*.

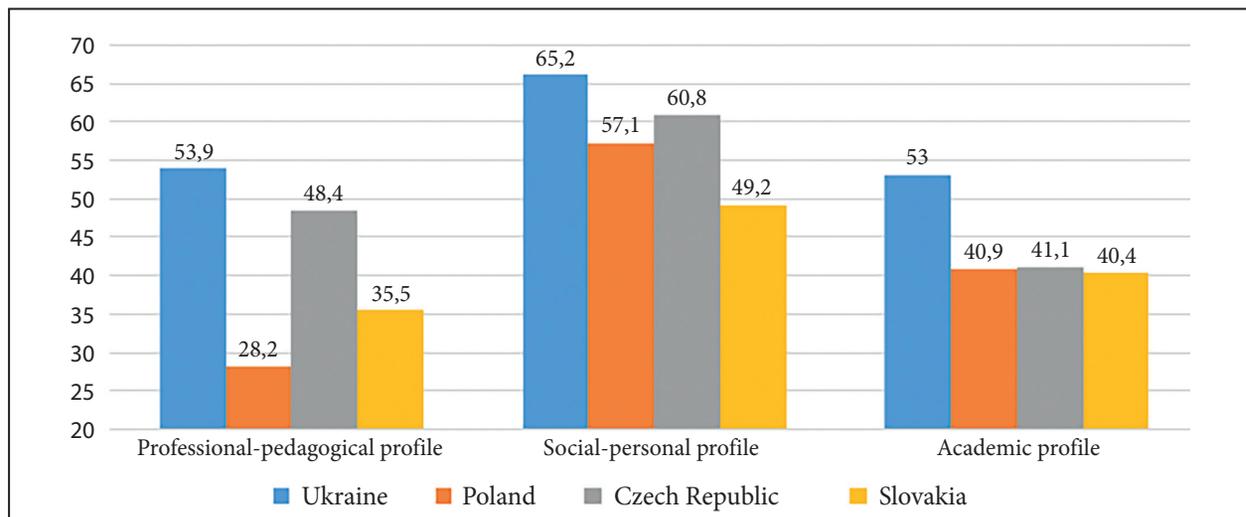


Figure 12: Generalized data (lecturers, 25–40 years old)

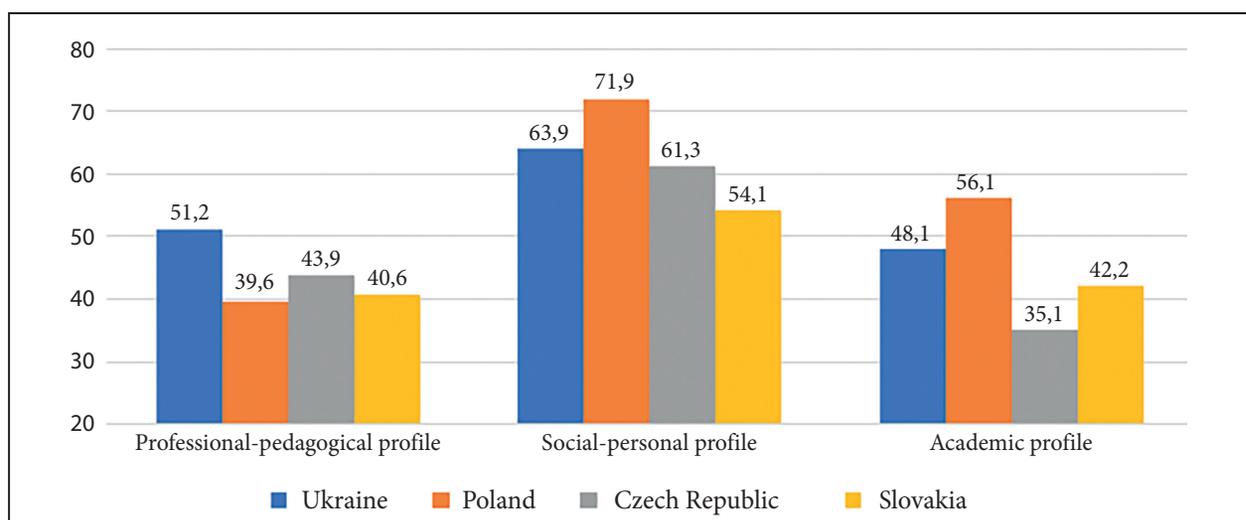


Figure 13: Generalized data (lecturers, 41–55 years old)

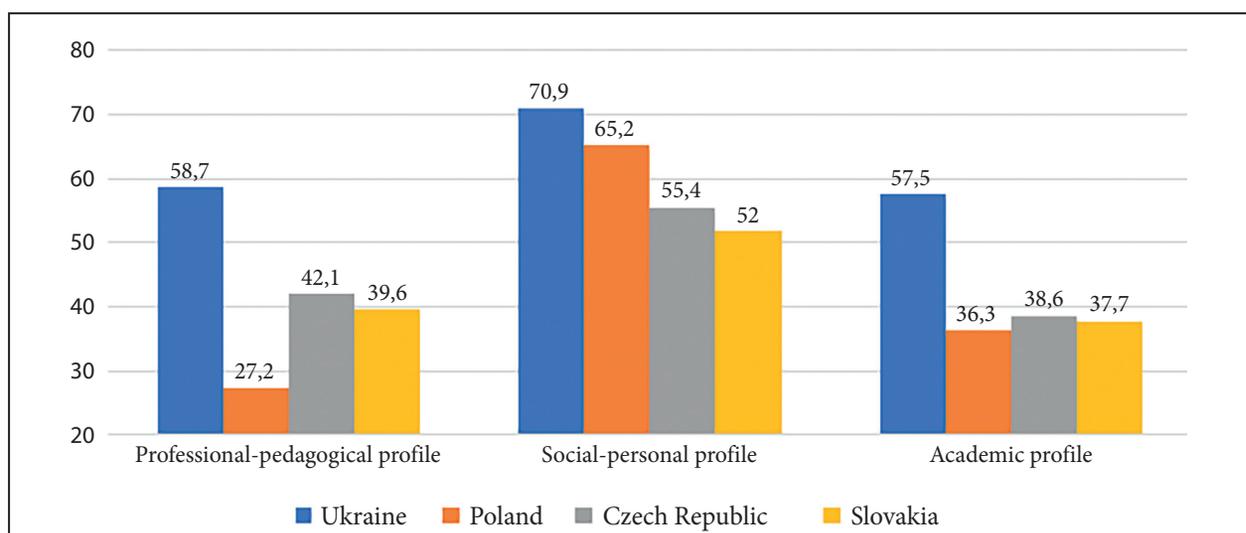


Figure 14: Generalized data (lecturers, over 56 years old)

# RECOMMENDATIONS ON THE STANDARDIZATION OF THE ACTIVITIES OF ACADEMIC STAFF AND SUGGESTIONS FOR THE FURTHER DEVELOPMENT OF THE COMPETENCES OF UNIVERSITY TEACHERS

Recommendations are based on the integration of the results of the research carried out in each project participating country and generalized tendencies regarding the development of higher education at the institutional, national and European levels.

## *Standardization of high school teacher's activities as a basis for assessing its quality*

One of the urgent problems of the development of the European educational environment is the harmonization of national education systems and the search for approaches to assess academic staff qualifications. Considering a wide space of study, this problem is of particular importance for academic staff who are directly involved in the future specialists' training. Taking into account the fact that lecturers, as direct organizers of the educational process, are given academic freedom to develop variability in educational programs, it is important to meet a certain standard in the assessment of their professional competence and performance.

Analysis of the concept of "standard" in various European documents and regulations showed that there is no single approach to its definition. Instead of the term "standard", the synonymous terms "program basis", "framework curriculum", "framework program" and others, which indicate the framework limitations of this normative document, are used. In the countries participating

in the international project "High School Teachers Competences in Change" № 21720008 (Poland, Ukraine, Slovakia, Czech Republic), this concept, though appears in the field of education, is missing in official documents. However, with the introduction of competence-based approach to the content of education, comprehending the phenomenon of standardization, the approach of determining the final results (the so-called "regulation of output") dominates in Europe. In fact, on the one hand, it is a guide to what results are planned to be achieved at the national level, on the other hand, the professional standard for lecturers is a tool for the implementation of the education strategy in a rapidly changing globalized world. The main function, which is performed by professional standards, is the approximation of the sphere of academic staff' work and staff training through the establishment of regulatory requirements to their knowledge, skills, personal qualities, and results achieved. So, the question of what a competence-oriented standard of lecturers' activity should be like is relevant and requires understanding and defining common approaches to its standardization.

Western scholars who dwelled on this topic believe that standards should be easily comprehensible and not too complicated (R. Conway, R. Murphy, A. Res, K. Hall) (Kleinhenz, E., Ingvarson, L. (2007). Standards for Teaching. Theoretical Underpinnings and Applications. New Zealand Teachers Council [Electronic resource]. Access mode: [www.teacherscouncil.govt.nz/communication/publications/research0012](http://www.teacherscouncil.govt.nz/communication/publications/research0012). Pdf. 5).

This opinion of scholars is supported by international organizations in the field of education. For example, in the documents of the European Committee of Education Trade Unions (ETUCE) it is noted that competences should be formed at a high level and be traced through the professional characteristics of the teacher at different stages of the professional career. At the same time, they should be based on the principles of relationship between theory and practice and focus on the development of the ability to critically comprehend their own and others' pedagogical experience [ETUCE (European Trade Union Committee for Education). *Teacher Education in Europe*. (2008). An ETUCE Policy Paper, Brussels: ETUCE, 170 p.].

In accordance with the latest works by G. Sykes and Plastrik and R. Plastrik, standards are instructions that are often used to accomplish multiple goals. For example, the following:

- a single model for the organization of certain activities;
- rules to be followed;
- indicators that contain certain information;
- perfect samples;
- principles on the basis of which the process is carried out etc. [Sykes, G., Plastrik, P. (1993). *Standard Setting as Educational reform. Trends and Issues Paper no. 8*, Washington, DC: ERIC Clearinghouse on Teacher Education and American Association of Colleges for Teacher Education. ED 358 068, p. 4–5].

Studying the problem of standardization as an important aspect of the educational policy of any state, we can distinguish two opposite approaches to the definition of standards and their importance in improving the quality of teaching. The first one is a bureaucratic and technical approach to reporting, focused on the measurement, monitoring, comparison, and regulation of an individual behavior of a lecturer. The second one, a developing essence of using standards with a broad interpretation of the concept of “competence” as indicators of the performance of multidimensional activities of a lecturer. At the same time, it is important to take into account the social and economic contexts that directly or indirectly affect lecturers' activities and its results. Therefore, standardization can be both a tool for the overall assessment of the quality of academic staffs' activities and the embodiment of the idea of its social diversity, as well as an indicator of shortcomings and

difficulties encountered in teaching. It is also important that the standard affects the processes of teacher development training and their adaptation to external changes and requirements, making it possible to identify the best positive experience and disseminate it.

According to scholars from the participating research teams from Poland, Ukraine, Slovakia, and the Czech Republic, an integrated approach to standardization and evaluation of academic staff is the most productive. It includes:

- determining the competence field of academic staffs activities, determining key competencies that reflect the professional and functional essence of this activity;
- developing a unified diagnostic tool for assessing and comparing the formation of lecturers' competencies;
- defining methodological strategies to help teachers choose development opportunities and meet individual needs of professional development;
- managerial, but not a directive nature of competence standards of academic staff, which in its essence does not contradict creative features of the teaching profession;
- taking into account national contexts and traditions of higher education.

Thus, the abovementioned actualizes a *complex standardization*, which is carried out as a purposeful and systematic establishment and application of a system of interrelated requirements for the professional competence of academic staff as an object of complex standardization, and to the possession of a set of individual competencies.

Some basic requirements for the development of professional standards of academic staff in the conditions of its modernization and reform:

- the structure of the standard should be competency based and result-oriented on a particular type of professional activity of a lecturer;
- the main method of forming the content of the professional standard for academic staff can be a functional analysis of various competence profiles of their activities, which reflect its multifunctional nature, and the distribution of the content of competencies that make the content of these profiles, in accordance with the qualification levels of lecturers;

Professional standards for lecturers are one of the most important components of national qualification systems and a prerequisite to the formation of a national qualifications framework adapted to the European one.

### ***Similarities and differences in the development of education systems of Poland, Ukraine, Slovakia, and Czech Republic***

It should be noted that in all participating countries (Poland, Ukraine, Slovakia, and the Czech Republic) higher education is developing within the democratic type model, which includes the humanization of the educational environment, ways of interaction between all subjects of the educational process. A common feature of the goals and guidelines of higher education is the universal and fundamental values of Western civilization — the assertion of the individuality of each personality, the development of critical thinking, the ability to act independently in different situations, the importance of social cooperation, responsible usage of freedom, ideological pluralism, etc.

The high social mission of the academic staff is actualized under modern circumstances and due to the fact that education in the 21 century becomes the main engine of development of civilized society in various directions. For example, education is:

- the system of a directed influence on individuals for the purpose of their socialization, when the content of the educational process is determined by the state requirements of the economic and political systems;
- the basic channel of culture broadcasting in accordance with the current values and standards;
- the catalyst for change in all spheres of human life, the basis of the progress of society;
- a tool for personality development, its self-realization, advancement on the way of self-improvement.

The research results showed that goals and values of higher education in countries participating in the international project No. 21720008 “High School Teacher Competences in Change” with the assistance of the International Visegrad Fund and the Ministry of Foreign Affairs of the Kingdom of the Netherlands are more similar than different. At the same time, there are significant differences between countries in the details of certain goals stated in educational documents. It is common for all project participating countries to increase the number of goals in higher education, their focus on quality and its high performance, a holistic and integrated approach to the definition of such goals.

Global world processes associated with the acceleration of changes in the modern post-industrial society (informatization, automation,

transformation of social institutions, financial system, demographic situation, etc.) affect transformations that occur not only in the field of education and higher education but regarding the adaptation of European educational goals to local requirements and conditions of the future labor market as well. Essentially opposite processes of globalization and localization are constantly adjusting the goals of higher education in Poland, Ukraine, the Czech Republic, and Slovakia.

The dominance of the competence-based idea as the basis for the selection of the educational content and evaluation of the quality of its results, makes it possible to determine common approaches to the criteria and performance indicators of lecturers in higher education institutions of project participating countries. In the competence space of academic staffs’ activities in these countries, we have identified common competency guidelines, which are associated with social, cultural, economic challenges, the evolution of educational goals of the EU. Among the main guidelines, the following competencies are identified: foreign language and digital competences, which updated the unifying processes in the EU and the ICT revolution; civil and intercultural competences related to the need for social interaction; self-improvement competence aiming to adapt the individual to constant changes, etc.

Analysis of the educational legislation, regulatory and strategic documents in participant countries, which are associated with the modernization and optimization of higher education, allowed to determine general directions of these processes:

- ensuring the quality of education; implementation of the basic educational principle “equal access to a qualitative education”;
- practice-oriented nature of professional training of future specialists;
- finding a balance between the socio-economic opportunities of countries and the objectives of higher education;
- bringing the structure of higher education in line with international standards; updating and rethinking the content of educational programs according to a competency-based approach;
- development of research in universities; active implementation of ICT in the educational process and increasing the volume of e-learning materials;
- decentralization of management and expansion of autonomy of educational institutions;
- continuous training of teachers within higher education.

### Conceptual approaches to the development of the project "High School Teacher Competence in Change"

The conclusions made by international research teams regarding the results of the diagnostics of academic staff competencies and their generalization give grounds for justification of recommendations on certain changes that should be implemented at the *institutional, national and European levels*. These levels are certain hierarchical parallels at which, according to the degree of generalization, there should be changes in the content, methods of organization and management of academic staff as a system of interrelated requirements to their professional competence, which is the object of complex standardization. Therefore, the recommendations are structured within such thematic components: *content, organizational, managerial*, which allows to cover all aspects of the scientific problem systematically. This scientific idea can be represented graphically.

### Description of recommendations on standardization and competences of the project "High School Teacher Competence in Change"

Recommendations are presented in the above-mentioned thematic areas. There is a description of each of them below.

Guided by the competency-based idea of the development of higher education in the EU, it is important to define a standardized framework of competencies for academic staff, using the development and set of competencies specified in the project studies.

Existing methods, assessment technologies for measuring levels of competence development of academic staff, should be enriched with diagnostic tools developed by project participants. Further specification and differentiation is required within appropriate indicators of expected levels of competence of lecturers of higher education: *reproductive, productive and creative*. A sample of the matrix structure of assessing the formation of competencies of academic staff is presented in *Table 1*.

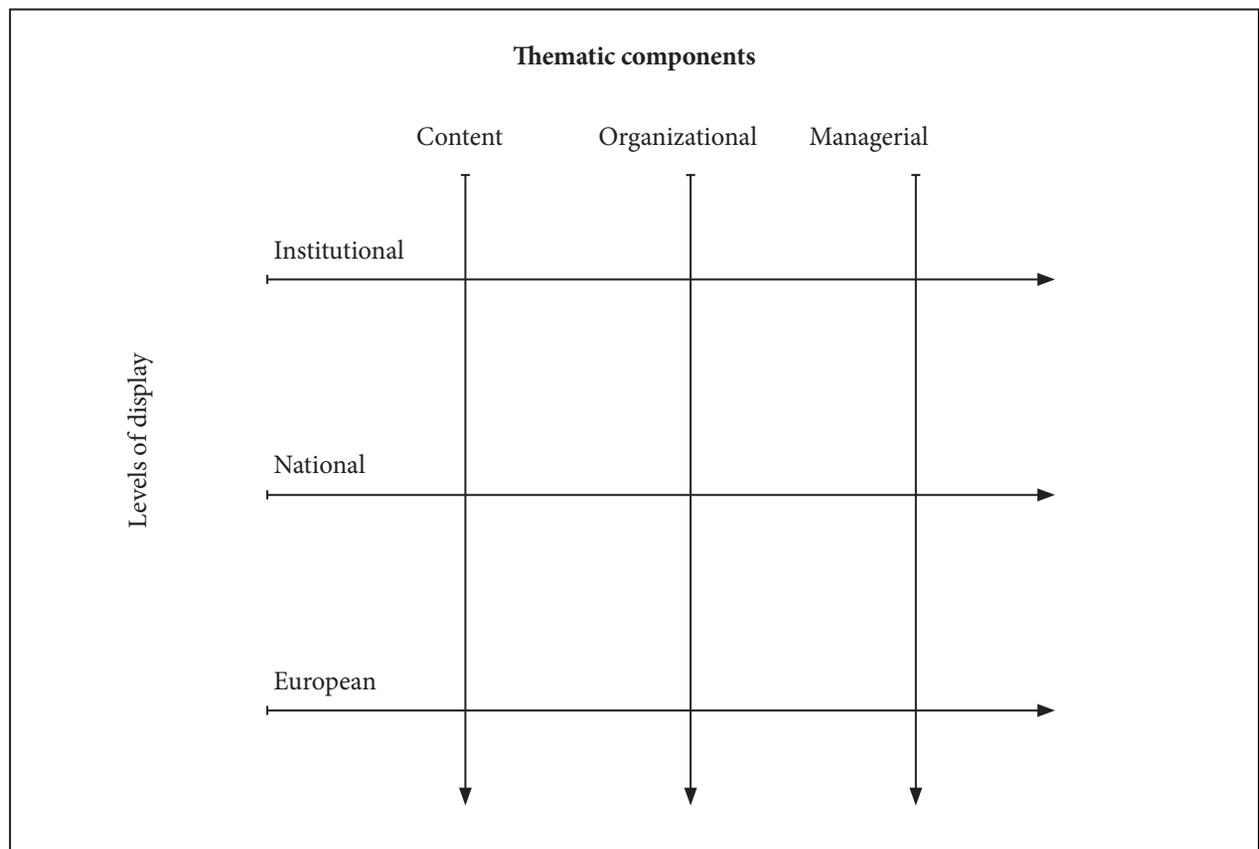


Figure 1: The matrix of higher school lecturers' competence changes

Table 1

STRUCTURE OF COMPETENCY FORMATION ASSESSMENT

Academic staff

Competence profiles	Names of competencies	Competence levels		
		reproductive	productive	creative
Professional and pedagogical	1. Innovative 2. Professional self-improvement 3. Digital 4. Communicative and interactive 5. Managerial	<p>Lecturers</p> <ul style="list-style-type: none"> <li>• are able to update and are opened to new, but tend to traditional solutions of educational problems, fragmentary improve the content, forms and methods of training;</li> <li>• perform scientific tasks of an innovative nature with coordination of mentors;</li> <li>• increase the level of their professional competence by participating in scientific and educational activities at various levels according to the plan of professional development;</li> <li>• partially use digital technologies in the educational process.</li> </ul> <p>The vast majority of lecturers</p> <ul style="list-style-type: none"> <li>• organizes the educational process on the principles of a knowledge-based approach, use reproductive methods of interaction with students;</li> <li>• perform management tasks with the help of a manager and/or colleagues.</li> </ul>	<p>Lecturers</p> <ul style="list-style-type: none"> <li>• are able to update, to accept new information;</li> <li>• improve the content, forms and methods of teaching in accordance with the needs of the market and employers;</li> <li>• perform scientific tasks of an innovative nature;</li> <li>• systematically increase the level of their professional competence by participating in scientific and educational activities at various levels;</li> <li>• use digital technology, informationally ensure the implementation of the content of educational programs;</li> <li>• organize the educational process according to a competency-based approach, implement interactive methods of interaction with students;</li> <li>• independently perform management tasks;</li> <li>• reasonably use management tools in creating an educational environment of a higher educational institution.</li> </ul>	<p>Lecturers</p> <ul style="list-style-type: none"> <li>• initiate innovations in the educational process of a higher educational institution;</li> <li>• systematically improve the content, forms and methods of teaching in accordance with the needs of the market and society, specifics of the target audience;</li> <li>• independently perform scientific tasks of an innovative nature;</li> <li>• systematically increase the level of their professional competence through participation in scientific and educational activities at various levels;</li> <li>• initiate activities to improve the skills of lecturers;</li> <li>• confidently use multi-vector digital technologies, informationally ensure the implementation of the content of educational programs;</li> <li>• effectively build interaction with students on the competency-based approach; use different methods of interaction with students (interactive, subject-subject, student-centered. etc.);</li> <li>• successfully solve management problems and achieve high educational results;</li> <li>• effectively create an educational environment of a higher educational institution.</li> </ul>

Competence profiles	Names of competencies	Competence levels		
		reproductive	productive	creative
Social and personal	1. Socio-cultural 2. Professional and personal responsibility 3. Leadership 4. Civic	Lecturers • generally support the model of professional behavior, which contributes to the process of harmonious cultural and moral choice, a dialogue of cultures, its humanistic direction, but do not always succeed; • have a sufficient level of administrative and moral responsibility for the results of the educational process; • do not show leadership qualities in interaction with colleagues and students; • do not show a definite civic position, which implies the focus of the educational process on the formation of civic qualities among students, enriching their spiritual, national, linguistic cultures, the broad involvement of young people to civic values and their learning in the process of professional training.	Lecturers • support the model of behavior that contributes to harmonious cultural and moral choice, a dialogue of cultures, humanistic direction of pedagogical activities in the process of professional activities; • have a significant level of administrative and moral responsibility for the results of the educational process; • show leadership qualities in interaction with colleagues and students, but not always confident in themselves; • show their civic position, focusing on the educational process on the formation of civic qualities among students, enriching their spiritual, national, linguistic cultures, the broad involvement of young people to civic values and their learning in the process of professional training.	Lecturers • successfully choose models of behavior that contribute to harmonious cultural and moral choice, a dialogue of cultures, humanistic direction of pedagogical activities in the process of professional activities; • have a high level of administrative and moral responsibility for the results of the educational process; • by the nature of their activities they are universal leaders who are characterized by following their principles, being initiative, group-work, self-confidence, able to show organizational, scientific and technical abilities; • demonstrate their own civic position; • form civic competence among students, enrich their spiritual, national, and linguistic culture, civic values and their knowledge in the process of professional training.
Academic	1. Research 2. International cooperation 3. Scientific PR 4. Methodological 5. Academic integrity	Lecturers • combine scientific and teaching activities at a sufficient level, fragmentary use results of national and foreign scientific research in daily educational practice; • present and disseminate results of their own research; • are not fully proficient in scientific methodology and research tools; • they comply with the requirements of academic integrity.	Lecturers • combine scientific and teaching activities; implement the results of national and foreign scientific research in educational practice, attempt to implement research-based education; • present and disseminate results of their own research; have full knowledge of scientific methodology and research tools; • comply with the requirements of academic integrity.	Lecturers • effectively combine scientific and teaching activities; • use the latest results of national and foreign scientific research in educational practice; • implement research-based education; • successfully present and disseminate results of their own research; • are fluent in scientific methodology and research tools; • popularize ideas and adhere to requirements of an academic integrity.

At the level of educational institutions, it is advisable to introduce an internal system of professional development of University lecturers, based on a differentiated approach to the formation of target groups based on the results of preliminary diagnosis. The content of the program of academic staff's competence development includes such topics of content modules as:

**Module 1. *Diagnostics of competence development of a higher school lecturer***

*The purpose of the module:*

- to identify difficulties in the work of academic staff that reduce the effectiveness of their activities;
- diagnose and self-diagnose lecturers, develop personal programs of competence development.

**Module 2. *Competence paradigm of modern higher education***

*The purpose of the module:*

- to familiarize lecturers with trends in the development of the educational policy in the EU, reforms of the national education system, new requirements for the competence of the lecturer of higher education.

**Module 3. *BarCamp of competence development of academic staff***

*The purpose of the module:*

- implementation of lecturer's personal programs of competence development;
- variability of lecturer's choice of individual strategies of competence development in the framework of the following profiles: professional and pedagogical, social and personal, academic.

**Module 4. *Competency-based practices***

*The purpose of the module:*

- exchanging innovative experiences, an introduction of new educational technologies and research methods in the educational process.

The effectiveness of the implementation of the Program of competence development of lecturers can be provided by relevant electronic educational materials and the Internet platform of scientific and methodological support of professional activities of academic staff.

*Organizational*

Adaptation of higher education goals on a national level to local socio-economic conditions, demographic changes and labour market requirements. The essentially opposite processes of globalization and localization are constantly adjusting the goals of higher education in different EU countries.

The introduction of standardized quality assessment procedures for teachers at the national and institutional levels takes into account such aspects:

- determining a set of requirements for the development of professional competence of lecturers;
- considering the educational results of students as an indicator of a professional activity of lecturers;
- introduction of the procedure of the inspectorate (performance standards) of professional achievements of academic staff as a certain procedure of independent monitoring and evaluation of the quality of their activities;
- implementation of a system of incentives for lecturers, taking into account the results achieved, etc.

To study the experience of the Ukrainian Academy of Acmeology in development of professionalism of academic staff and to intensify its implementation in the work of its international section.

At the institutional level, it is advisable to organize and introduce into the educational practice a system of lecturers' self-assessment (self-evaluation) of the formation of their own competencies in the above-mentioned competence profiles: professional and pedagogical, social and personal, and academic (self-analysis and evaluation of professional competencies are carried out separately). The introduction of the method of self-assessment in the practice of higher school lecturers' activities contributes to their professional development, will make them closer to achieving standardized results of their activities.

*Managerial*

Development of common-European guidelines on standards of academic staffs' performance as a specific recommendation, a competency framework of higher school lecturers' activities. Conducting a clear division of labour responsibilities for academic staff of all categories (assistant, lecturer, associate professor, professor).

Reorganization of the system of management, funding, and management of education through decentralization, deregulation, development of interconnected direct and backward links of higher education institutions with stakeholders.

Achieving transparency and openness of the education management system based on the analysis of ratings of the academic staff of universities, which allows to assess the real state of the problems, to make expected conclusions, to create a database of factual data (evidence), which allows to establish the compliance of their activities with set objectives and goals. Evidence needed to assess, stimulate and guide the development of higher education and its institutions at the national level.

Introduction of institutional, academic and financial autonomy of higher education institutions, the introduction of University management as a new model of institutional management, where the professionalism and competences of a lecturer are key to the effective operation of higher education institutions.

The recommendations have general character and partly reflect the proposals of participating

countries. Details of this proposals contained in the research teams' reports of each country participating international project No. 21720008 "High School Teacher Competences in Change" with the assistance of the International Visegrad Fund and the Ministry of Foreign Affairs of the Kingdom of the Netherlands.

Thus, a systematic study and assessment of the competencies of academic staffs, the identification in the partner-countries (Ukraine, Poland, the Czech Republic, and Slovakia) certain common factors that affect their activities at the global and local levels, allowed on the basis of an integrated approach to develop a set of recommendations for the standardization of lecturer's activities. It is based on the structural and logical understanding of this phenomenon at the institutional, national and European levels, where standardization covers the content, organizational and managerial aspects of its implementation. The developed recommendations can serve as guidelines for further development of theoretical, practical and diagnostic approaches to standards of academic staffs' activities at different levels: institutional, national and European.

# APPENDIX

## Dear Lecturers!/Dear students!

We ask you to estimate the importance of different characteristics of lecturer's professional activity according to your own dominance.

Rate your attitude to each statement on a 4-point scale on the following principle:

- Yes (I fully agree);
- more Yes than No;
- more No than Yes;
- No (I completely disagree).

Your answer will make it possible to formulate criteria for the lecturer's professional activity, which is important for its quality improvement.

1.

Professional and pedagogical	Lecturer	Yes	More Yes than No	More No than Yes	No
	Constantly improves himself / herself, improves his / her intellectual and professional level				
	Introduces innovative learning technologies, including ICT				
	Works with information in global networks based on its critical analysis				
	Uses various means of communication with students and colleagues, including ICT				
	Uses fundamental knowledge in the educational process, the achievements of modern science, constantly updates the content of educational courses				
	Creates an educational environment, that contributes to cognitive activity of students, research based learning				
	Creates distance learning courses				
	Is able to use the technology of managing of students' self-study				
	Shows flexibility in professional activity, enterprising initiative				
	Considers interactive coordination with students the most productive in the educational process, organizes group and collective project activities				
	Is able to set and achieve the didactic goal according to SMART technology with students				
	Uses different technologies of monitoring educational outcomes, corrects them				
	Has a positive attitude to reforms and changes that take place in higher education				
Is satisfied with the results of his professional activity					

2.

Social and personal	Lecturer	Yes	More Yes than No	More No than Yes	No
	Understands the social significance and high responsibility of his professional activities				
	Has a high motivation to perform professional tasks				
	Provides leadership support for student youth, demonstrating a high level of general and professional culture				
	Keeps to the rules of professional ethics with all subjects of the educational process				
	Perceives the younger generation as a generation that has special values and needs				
	Is opened to communication, aspire to understanding and solving complex situations				

Social and personal	Lecturer	Yes	More Yes than No	More No than Yes	No
	Can present and stand up for own ideas as well as take part in a dialogue and discussion				
	Restrains negative emotions, overcomes bad mood				
	Knows his civil rights and duties, can uphold them basing on valid laws				
	Gives students real opportunities for developing self-management, supports youth initiatives				
	Encourages tolerance to differences between people in multicultural environment				
	Can come to a decision and take responsibility for success and failures in professional work				

3.

Academic	Lecturer	Yes	More Yes than No	More No than Yes	No
	Is able to combine the activities of a teacher and a scientist, organizes student's studying process basing on research				
	Is proficient in modern methodology and methodology of research in the field of higher education				
	Organizes research groups on topical issues of science, participates in national and international projects				
	Realizes the main forms of internationalization of higher education (students and teachers mobility, introducing foreign experience into practice, etc.)				
	Publishes the results of scientific research in scienometric publications.				
	Involves students in scientific activities, manages a scientific club, an elective				
	Presents the results of scientific activities to the international community				
	Is able to develop a diagnostic tool for the analysis of scientific data				
	Adhere to the standards of academic integrity				
	Is an expert in the relevant scientific field, conducts expert examinations, prepares reviews, has a scientific school				
	Promotes the results of their own research using an e-portfolio				

Point out some features that are relevant for the lecturer's activity in higher education institution, but they are not mentioned in the list of the statements presented above.

4. Your sex — *Masc./Fem.* (choose the right)

**Specific questions for academics:**

5. Your age: (choose the right)

- 25–40 ;
- 41–55;
- 56–70
- 71 and more

6. Specify your teaching experience:  
up to 10 years old  
from 11 to 20 years old  
more than 20 years

7. Specify your academic rank:  
Professor  
Associate professor  
Assistant professor (with PhD)

**Specific question for students:**

Mention the year of study

Thank you for your co-operation!

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# HIGH SCHOOL TEACHER COMPETENCE IN CHANGE

according to the results of the project  
of the International Visegrad Fund  
“High School Teacher Competence in Change” No. 21720008

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