

Snježana Močinić, Lorena Lazarić and Ivana Paula Gortan Carlin

University teachers' teaching competencies: Their importance for advancement in the Croatian context

Abstract: The aim of this study was to analyse whether the quality of teaching and the pedagogical-didactic and psychological competencies are considered important to work at the university and to advance professionally. A descriptive and causal non-experimental method of pedagogical research was employed, using a survey with attitude scales and pedagogical documentation analysis. The research was conducted using a newly constructed questionnaire for which the reliability $\alpha = 0.804$ was determined. This pilot research included the teaching staff of the University of Pula at all levels of the academic career. The participants encompassed by this pilot research agree that, to be employed at a university, a formal compulsory education in the area of pedagogy and psychology should be completed by teachers who did not have the opportunity to gain it earlier, because to conduct quality teaching at higher education institutions it is not enough to thoroughly know the subject content or to observe examples of good practice, and neither is it sufficient to occasionally enrol in targeted training.

Keywords: teacher competencies and attitudes, teaching quality, university teachers, professionalisation of teaching

UDC: 378

Scientific article

Snježana Močinić, PhD., assistant professor, Juraj Dobrila University of Pula, Faculty of Educational Sciences, Ronjgova 1, 52100 Pula, Croatia; e-mail: nmocinic@gmail.com

Lorena Lazarić, PhD., assistant professor, Juraj Dobrila University of Pula, Faculty of Educational Sciences, Ronjgova 1, 52100 Pula, Croatia; e-mail: lorena.lazaric@unipu.hr

Ivana Paula Gortan Carlin, PhD., associate professor, Juraj Dobrila University of Pula, Faculty of Educational Sciences, Ronjgova 1, 52100 Pula, Croatia; e-mail: igcarlin@unipu.hr

Introduction

The issues relating to the quality of school systems are a priority in many countries today, with education being one of the strategic factors of the economic and social development of each country (Nove boje znanja: Strategija obrazovanja znanosti i tehnologije 2015). The expectations of universities and university teachers have become very high, as society relies upon them to be able to deal effectively with the increasingly complex problems pertaining to youth education and training and to ensure high learning outcomes in education (Aškerc Veniger 2016; Gianferrari 2009). The educational process is a very complex and dynamic phenomenon with many factors affecting students' acquisition of knowledge and development of skills, from elements that depend on the students themselves (that is cognitive abilities, motivation, attention, work habits) to the family, social and educational context in which they live and learn. Many authors in this field (Gianferrari 2009; Kalin 2004; Miočić 2017; Rački et al. 2010; Turk and Ledić 2016a, 2016b) have examined all these factors and their interconnections and shown that the teacher and teaching quality are the variables that greatly influence the results of learning. According to them, the objective of effective university education is to provide for competent and motivated teaching professionals; its realisation largely depends on how well the teachers are prepared. Teachers' education is a lifelong process, as it requires the constant adaptation of teaching activities to the changes and demands of modern society.

In recent decades, university education has changed significantly, and it continues to change in line with the expectations of students and society in general. Social, economic, political, cultural and technological changes in modern society require new learning and teaching strategies that meet the needs of a large and diverse population of students (Biggs and Tang 2011; Höhle and Teichler 2013; Marentič Požarnik and Lavrič 2015). The shift from a teacher-centred approach to a student-centred approach requires excellence in teaching (Gibbs and Coffey 2004; Hagström and Lindberg 2012; Ödalen et al. 2019; Postareff et al. 2007), which requires the university teaching staff to apply their teaching competencies effectively. According to Marentič Požarnik (2020), it is necessary to continually

promote and assess the measures for the improvement of teaching and learning quality in higher education for which courage and persistence are needed.

The need for improving the quality of university teaching is addressed at the European level as well, with a view to consolidating the European Higher Education Area (Standards and Guidelines for Quality Assurance in the European Higher Education Area 2015). In 2005, the European Network for Quality Assurance in Higher Education introduced the *Standards and Guidelines for Quality Assurance in the European Higher Education Area*. This document, which outlines the EU education policy and which has been updated several times already, states that »higher education institutions should employ methods for examining teachers' qualifications and competencies« (2005, p. 6) to improve the quality of the education accessible to students in higher education institutions of the Member States of the European Union. Marentič Požarnik (2009) wrote about the state and development tendencies in the field of higher education teachers' training for more successful pedagogical work (didactic training) at various European universities and by studying examples in Ljubljana, as part of the »quality culture« of higher education. According to the 2015 *Standards and Guidelines for Quality Assurance in the European Area of Higher Education*, the role of university teachers is essential in creating a high-quality student experience and enabling the acquisition of knowledge, competencies and skills. Further, changes in the structure of the student population and an increased focus on learning outcomes require a student-centred approach to teaching, along with changes in teachers' roles (2015, p. 13). Moreover, it is emphasised that what is necessary is the »flexible use of a variety of pedagogical methods [and] regular evaluation and adjustment of various modes of delivery and pedagogical methods« (Standards and Guidelines for Quality Assurance... 2015, p. 12). The *Bucharest Communiqué* (2012) produced recommendations for the development of innovative teaching methods as the basis for the mutual recognition of earned diplomas. A European Commission document from 2013 titled *High Level Group on the Modernisation of Higher Education: Report to the European Commission on Improving the Quality of Teaching and Learning in Europe's Higher Education Institution* recommended that, up to 2020, higher education teaching staff should obtain a certificate proving they had completed teaching training and that lifelong vocational training should become a requirement for working in the field of higher education. In the *Yeveran Communiqué* (2015), education ministers from 47 European countries stressed the need of recognising and supporting high-quality teaching and for creating opportunities for the development of academic teacher competencies (Errico 2017). To complement the Bologna Process, the European Commission has repeatedly stressed the importance of continuing professional education for university teachers. To support the improvement of learning and teaching at European universities, in 2017, the Council of the European University Association (EUA) approved the European Principles for the Improvement of Learning and Teaching, which are the result of the EFFECT project (European Forum for Enhanced Cooperation in Teaching), which was funded by the EU. The EUA report on the development of teaching competencies at European universities (Continuous Development of

Teaching Competencies... 2019) underlined the need to promote the continuous professional development of teaching staff and recognise teaching competencies as essential for the academic profession. In the *Paris Communiqué* of 2018, the European ministers of higher education committed to promoting and supporting institutional, national and European initiatives for pedagogical training and the continuous professional development of higher education teachers, as well as to explore ways to better identify high-quality and innovative teaching in their careers. In the *Rome Ministerial Communiqué* (2020), the ministers responsible for European higher education (EHEA) recommended that university teachers be provided with decent working conditions and a manageable teaching workload and that they be ensured equality in the recognition of teaching and research when advancing to higher teaching positions.

Teaching competencies and advancement to higher teaching positions in Croatia

Croatia had addressed the need to assure the quality of higher education and university teaching, but there has not been any significant progress in the matter so far, at least in terms of defining the conditions that need to be met for appointment to teaching professions. In the Croatian education system, quality is assured through a national legal framework that governs the conditions for the appointment into scientific teaching positions. The conditions are divided into those related to the scientific work of university teachers prescribed by the National Council for Science, Higher Education and Technological Development, the conditions related to teaching activities of teachers prescribed by the Rector's Conference and institutional activities (Odluka o nužnim uvjetima za ocjenu nastavne i znanstveno-nastavne djelatnosti u postupku izbora u znanstveno-nastavna zvanja 2017). The analysis of the conditions for the appointment to teaching positions shows that the advancement in the academic career has focused on the number and quality of published scientific papers, which is confirmed in the process of appointment to scientific professions. However, when it comes to teaching and professional activities, the quality of teaching competencies in the process of academic advancement are somewhat disregarded, and such situations do not favour the stimulation of their development. Furthermore, the criteria of the Rector's Conference for the evaluation of teaching competencies are generally easier to meet than the criteria for the evaluation of scientific competencies. Being formal in nature, they do not undergo assessments, so the teachers are not stimulated to improve the quality of their work, which is considered less valuable in terms of advancement to higher positions (Kalin 2004; Miočić 2017; Nove boje znanja, Strategija obrazovanja znanosti i tehnologije 2015; Turk and Ledić 2016a).

As part of the requirements for appointment to the scientific-teaching professions laid down by the Rector's Conference (Odluka o nužnim uvjetima za ocjenu nastavne i znanstveno-nastavne djelatnosti u postupku izbora u znanstveno-nastavna zvanja 2017), the applicants who are appointed to the scientific-teaching grade of assistant professor for the first time must have a positively evaluated

inaugural lecture presented before university teachers and students, and those who are in the process of being appointed to a higher grade must submit the positively evaluated results of the institution's examination of their teaching work or the positively evaluated results of a student questionnaire conducted by the higher education institution. Other requirements in the process of appointment to a higher grade include, among others, teaching and scientific-professional contributions, the mentoring of final or graduate theses, training in the scientific field, profession or teaching, the publishing of a scientific book, university textbook or manual, making innovations in teaching materials, conducting reviews of study programs, university books and textbooks, the presentation of research at scientific or professional conferences, management or participation in science and research projects, the editing of professional proceedings, the publishing of professional articles, receiving international or national awards or recognitions for scientific, teaching or professional work and numerous requirements related to the institution itself (Odluka o nužnim uvjetima za ocjenu nastavne i znanstveno-nastavne djelatnosti u postupku izbora u znanstveno-nastavna zvanja 2017). All these requirements are only indirectly related to the evaluation of the teaching competencies of teachers. It must be noted that professional associates (teaching assistants and postdoctoral students) who have just begun working in scientific-teaching positions do not have to meet any teaching-related criteria when being recruited at a higher education institution.

However, scientific expertise does not guarantee good teaching qualifications, which university teachers can acquire by educating themselves in the field of pedagogy and psychology as a form of lifelong education. Competencies in pedagogy and psychology are essential for ensuring the quality of teaching in higher education. However, the development of these competencies is most often reduced to informal and non-formal learning, as well as the teachers' own intuition or talents, and less often to the formal learning and professional development organised within the framework of lifelong education (Domović et al. 2018; Miočić 2017). For instance, young professional associates, that is, teaching assistants, often acquire teaching competencies in informal ways, through their own teaching experience, relying on the knowledge that they have gained by observing their own teachers or exchanging experiences with their colleagues. When taking up employment at the university, they are not required to have formal education in pedagogy and psychology, although they are entrusted with exercises and seminars that sometimes necessitate a high pedagogical adequacy of methods and procedures. Pursuant to the *Act on Scientific Activity and Higher Education* (2017, article 97, items 2 and 3): »Teaching assistants [...] help carry out part of the teaching process, knowledge assessment, and scientific, artistic and professional activities of the university«, and, having completed a graduate university programme, they earn the title of a teaching assistant. Up until the inaugural lecture, which is an important segment of evaluating a candidate's teaching skills in the process of his/her appointment as an assistant professor, the teaching competencies are not assessed. This is a period of up to ten years, that is, six for teaching assistants and four for postdoctoral researchers. Likewise, future assistant professors do not

receive systematic training in the fields of pedagogy, psychology and methodology. According to past research (Gibbs and Coffey 2004; Ödalen et al. 2019), teachers need training in pedagogy and psychology at the beginning of their academic career.

The legal requirements and conditions of the Rector's Conference are set at only a minimum level, and each higher education institution can determine more stringent criteria for its teachers. However, among the statutes and regulations on the appointment to titles and positions of universities in Croatia, only the University of Osijek states in its *Regulations on the Appointment to Titles* (2022, article 31, item 3), that »Applicants who do not have a certificate from an authorized higher education institution on the completed program in a general field of pedagogy, psychology, didactics and methodology of teaching are obliged within one year from the date of conclusion of the employment contract to complete such program at a certified higher education institution«, otherwise their employment contract is cancelled.

Overview of research on university teachers' teaching competencies conducted in Croatia

The research findings on the higher education teaching profession in the Republic of Croatia continuously point to the lack of adequate support and programs for the improvement of pedagogical, psychological and didactic competencies of university teachers, both the newly recruited and those who have years of experience (Kovač 2001; Miočić 2017; Peko and Mlinarević 2012; Rački et al. 2010; Turk and Ledić 2016), as well as an insufficient emphasis on the formal obligation to acquire pedagogical and psychological education (Brajdić Vuković 2013; Kalin 2004; Rački et al. 2010). Most authors agree that, in order to improve university teaching, it is necessary to design and conduct the continuous pedagogical and psychological training of assistants and university teachers as part of lifelong learning, and the first step is to recognise the need to improve teaching competencies.

Kalin (2004) argued that it is illogical that work in primary and secondary school (articles 105 and 115 of the Education in Primary and Secondary School Act, Official Gazette 126/2012) requires the completion of the Pedagogical-Psychological and Didactic-Methodical Education Program, as well as a year of traineeships, after which the professional exam must be taken, while, at the same time, young people, untrained for this very complex and demanding job that requires knowledge from the field of pedagogy, psychology, didactic and methodology, start teaching at the university. Rački et al. (2010) described in their paper the results of the first program of pedagogical-psychological and didactic-methodical education for young teaching assistants in 2009 at the University of J. J. Strossmayer in Osijek. A similar program exists at other universities in Croatia, but, unlike Osijek, attendance is not mandatory for recruitment at the university. Turk and Ledić (2016a), also argued that the university teacher should possess a basic didactic knowledge and a general knowledge of the evaluation and assessment of

students and of the theories on which the learning and teaching process lies. In their opinion, the teaching role is very demanding, and the acquisition of teaching competencies is a long-term development process shaped by a number of factors, including motivation, experience, mentoring and collaboration, as well as opportunities for the formal professional training of teachers. Bogнар and Kragulj (2010) argued that university teachers cannot remain at the beginner didactic and methodical level and emulate the teaching of their professors, but should follow the changes in psychological and pedagogical sciences and constantly modernise their classes by engaging in continuous lifelong learning programs.

In order to create the preconditions for improving the quality of learning and teaching in Croatian higher education, in 2016, the Ministry of Science and Education launched the project *Educa-T, Emphasis on Developing and Upgrading Competencies for Academic Teaching* (Domović et al. 2018). The task of the working group was to »develop the Competence profile of teachers in higher education, Curriculum for the acquisition of teaching competencies in higher education and to propose Recommendations for development and improvement of competencies for teaching in Croatian higher education institutions«; the results are presented in the published Manual for Improving the Competencies of Teachers in *Higher Education* (Domović et al. 2018, p. 7). The proposed framework curriculum for the acquisition of teaching competencies in higher education foresees three cycles. The first is set as a condition to start teaching activities in higher education institutions, the second aims at improving teaching competencies in the field of curriculum planning and development, as well as developing communication skills and the third is intended for those who want to specialise in the field of improving teaching in higher education during their academic careers. One part of the previous project of the Ministry of Science and Education was »the Analysis of the Situation and Activities« (Domović et al. 2018, p. 10) carried out at universities in the Republic of Croatia with the aim of improving the quality of learning and teaching. The analysis of the strategic documents of the higher education institutions that were included in the research showed that the majority recognise the importance of improving the quality of learning and teaching, which was confirmed by the leadership of the university, which points out that they have concrete plans at their universities to improve learning and teaching (Dužević et al. 2017). However, concrete measures to support the improvement of teaching and the development of teaching competencies are implemented unconstitutionally, not comprehensive, and their effects are evaluated only periodically. Furthermore, »the results of the research have shown that the key limitations in implementing innovative practices in developing the quality of learning and teaching are inappropriate procedures and the regulatory framework of the national system, which focuses on the results of the scientific research work of teachers, while the quality of learning and teaching is marginalized« (Dužević et al. 2017, p. 62). As an additional limitation, the research mentions the great workload of teachers, who do not have enough time to explore innovative teaching methods and the resilience of individuals to change.

Models of acquisition of teaching competencies

As higher education teaching is currently subject to revaluation, a better insight into how university teachers develop their expertise in this important component of academic work is needed. Researchers identified five models of the professional development of university teachers:

- the independent development of teachers by finding activities for professional development and solutions to their teaching problems;
- the peer-to-peer observation and evaluation of colleagues who provide objective information about their teaching work, that is, feedback, as an invaluable tool for reflection and the analysis of their own work;
- a model of inclusion in the process of development/improvement of the educational process that requires teachers to engage in the development of the curriculum, design of the study programs, the planning of professional development, etc.;
- a model of organised education related to the participation of teachers in the process of individual or group acquisition of pedagogical-psychological knowledge and skills during seminars, workshops or longer educational programs and
- an action research model that requires teachers to recognise the problem, collect information and make changes to their classes based on the interpretation of the collected data (Aškerc Veniger 2016; Çetin and Bayrakçı 2019; Guskey 2000; Marentič-Požarnik 2020; Sparks and Loucks Horsley 1989).

Moreover, authors Çetin and Bayrakci (2019) listed mentoring models and groups of critical friends. Mentors are older and more experienced teachers who provide important information, provide assistance in accessing resources, teach, encourage reflection, advise on career advancement and support young teachers. The group of critical friends consists of members of the professional community that aims to promote the learning activities of young teachers through collaboration based on reflection on their teaching practices and the problems they encounter.

The professionalisation of teaching requires primarily establishing a systematic pedagogical and psychological education of university teachers, but also the application of other models. Internationally, many universities have established centres for teaching and learning excellence and faculty development or Teaching and Learning Centres (Felsatti and Serbati 2015). The aim of these centres, widely distributed in the Northern European and American contexts, is to organise, prepare and implement pedagogical and psychological educational programs for university teaching staff to improve their teaching competencies (Biggs and Tang 2011; Felisatti and Serbati 2015). The activities consist of shorter (10 ECTS) or longer (30 to 70 ECTS) educational programs, courses, seminars, workshops, round tables, the peer-to-peer monitoring and evaluation of teaching activities, preparation of digital didactic materials, etc. (Duță and Foloștină 2014; Felisatti and Serbati 2015; Postareff et al. 2008; Lindberg-Sand and Sonesson 2008). In

some countries, pedagogical and psychological education is a necessary condition for employment at the university, while in others it depends on the voluntary decision of the teacher, regardless of whether it bears points for career advancement or not. Nevertheless, everyone is recommended to use educational courses and other pedagogical-psychological and didactic activities, especially at the beginning of their career and throughout their working life. In most countries, the organisation of courses is centralised and managed by a supervisory institution at the national level, while, in others, it is entrusted to centres within faculties or departments at a particular university (Duță and Foloștină 2014; Felisatti and Serbati 2015; Postareff et al. 2008; Lindberg-Sand and Sonesson 2008).

Most universities in Croatia have established Centres for Lifelong Education, where various education is organised in order to improve higher education teaching competencies, and the Faculty of Humanities and Social Sciences of the University of Rijeka launched a six-month program for the training of teaching competencies in higher education for teaching assistants.

Research methodology

Research problem and objective

The research deals with the very current problem of disrespecting the quality of teaching in academic staff vocational advancement. The aim of the research was to examine whether the quality of teaching and pedagogical-psychological education are considered important for teachers to work at the University, how this education is acquired and whether it is considered useful in advancing in the profession of university teaching in Croatia.

Research methods

For the analysis of the university teachers' attitudes, descriptive and causal non-experimental methods of pedagogical research were employed (Mužić 2004), namely a survey with attitude scales.

Sample and research procedure

From the 189 permanently employed at the Juraj Dobrila University of Pula, 50 teachers at all academic career levels participated in this pilot study, which was conducted online in the first three months of 2020. The approval of the Ethics Committee of the University was requested and obtained for the teacher survey procedure.

Research instrument

The aim of the research was to determine whether research is still favoured in relation to pedagogical-psychological competencies in the advancement of the profession of university teachers in Croatia and which models of acquiring them are most used.

In the absence of ready-made instruments that would suit the needs of this pilot research, a questionnaire on the pedagogical-didactic and other competencies of university teachers appropriate to the higher education context in the Republic of Croatia was prepared. It was constructed especially for this occasion, but is based on similar research conducted in Croatia and abroad (Marentič Požarnik and Lavrič 2015; Turk and Ledić 2016a).

Using two attitude scales (on the importance of teaching competencies in university teaching and the models of their acquisition), the respondents were asked to express their level of agreement/disagreement with each claim using the five-point Likert scale: 1 – Strongly disagree, 2 – Disagree, 3 – Neither agree nor disagree, 4 – Agree, and 5 – Strongly agree. The metric characteristics of the constructed instrument were verified: Sensitivity was measured by measures of deviation, constructive validity by factor analysis, and reliability by the internal consistency method – Cronbach's alpha $\alpha = 0.804$. Factor analysis of the principal components was used to determine the dimensionality of the analysed constructs. For the retention of significant factors, the Kaiser-Guttman criterion was selected, and the factor structure was determined as single-factor or multifactorial according to the number of separated factors with a characteristic root greater than 1.

Results and discussion

The conducted factor analysis showed that *Acquisition and importance of teaching competencies of university teachers* is a multidimensional construct. Two factors with a characteristic root greater than 1 were singled out, explaining a total of 61.615% of the variance of scale results. Considering the size of the coefficient in the matrix of the form presented in Table 1, the first-factor was named *Importance of teaching competencies* (items 1 to 5), and the second one *Acquisition of teaching competencies* (items 6 and 7). On the basis of this factor analysis, two subscales with the same names were constructed.

Acquisition and importance of teaching competencies of university teachers	Factor*		Arithmetic mean	Standard deviation
	1	2		
1. Pedagogical and psychological education is essential for the maintenance of high-quality university teaching.	.903		4.47	.68
2. Formal acquisition of teaching competencies is an unnecessary waste of time.	-.802		1.53	.82
3. Teaching competencies can be acquired after the recruitment	.742		3.77	.82

4. For high-quality university teaching, a thorough knowledge of the teaching subject is sufficient.	-.625		2.23	1.19
5. I don't find teaching competencies useful for professional advancement.	-.623		1.47	.86
6. University teacher acquires teaching competencies with many years of practical experience.		-.771	3.23	1.04
7. For teachers who do not have a pedagogical-psychological education, an obligation to formally complete it should be introduced at the moment of recruitment.		.727	4.20	.76

Table 1: Results of factor analysis of the scale Acquisition and importance of teaching competencies of university teachers (descriptive statistics of scale items).

* Factor saturations with an absolute value greater than 0.3 has been provided for easier interpretation.

By analysing the results (Table 1) according to subscale item *Importance of teaching competencies* the lowest average central values ($M = 1.47$) have been observed for the item *I don't find teaching competencies useful for professional advancement* and ($M = 1.53$) for the item *Formal acquisition of teaching competencies is an unnecessary waste of time*. The highest arithmetic mean was obtained for the item *Pedagogical and psychological education is essential for the maintenance of high-quality university teaching* ($M = 4.47$). From the analysis conducted, it is evident that the formal acquisition of teaching competencies is considered by the subjects to be necessary, not only for professional advancement but also for the high quality of teaching at the university.

The item *For high-quality university teaching, a thorough knowledge of the teaching subject is sufficient* obtained a low mean value ($M = 2.23$), and a high standard deviation ($SD = 1.19$), which means that the respondents were not unanimous in supporting this thesis, but that there are those who agree with it.

The analysis of the results (Table 1) by subscale items *Acquisition of teaching competencies* with mean value ($M = 3.23$), with high standard deviation ($SD = 1.04$) for the item *University teacher acquire teaching competencies with many years of practical experience*, and mean value ($M = 4.20$) with low standard deviation ($SD = .76$) for the item *For teachers who do not have a pedagogical-psychological education, an obligation to formally complete it should be introduced at the moment of recruitment* indicates a high awareness of the respondents of the need to introduce a formal way of acquiring pedagogical and psychological education at the moment of employment at the university.

The results show that the respondents were aware of the importance of pedagogic-psychological education for high-quality teaching and academic advancement, even though they are neglected during the selection process. Regardless of how little consideration is given to the academic advancement of teachers, quality teaching has a strong impact on the performance and goals of any university and plays a strategic role in the university's contribution to social progress. As members of the European area of higher education, Croatian universities invest efforts in the organisation of various forms of education for the improvement of high-

er education teaching and the improvement of teaching competencies, intended especially for employees in associate and higher academic positions. At the national and international level, it is clear that the relationship between research and teaching should be balanced, giving adequate recognition to the quality of teaching, which would strengthen the motivation of teachers to invest in its improvement.

The conducted factor analysis showed that the *Models of acquisition of teaching competencies of university teaching staff* are a multidimensional construct. Two factors with a characteristic root greater than 1 were singled out, explaining a total of 66.548% of the variance of the scale results. Considering the size of the coefficient in the matrix presented in Table 2, the first factor was named *Organized acquisition of teaching competencies* (items 1 to 4) and the second one *Unorganized acquisition of teaching competencies* (items 5 and 6). On the basis of this factor analysis, two subscales with the same names were constructed.

Models of acquisition of teaching competencies of university teachers	Factor*		Arithmetic mean	Standard deviation
	1	2		
1. through a pedagogical and psychological package, after employment at the university	.799		2.30	1.37
2. through a pedagogical and psychological package during graduate study	.778		3.27	1.41
3. through online courses	.625		2.87	1.28
4. observing examples of good practice of colleagues working at the same or other universities	.579		3.67	.80
5. at targeted seminars and professional development courses		.950	3.57	1.07
6. through postgraduate education		.834	2.80	1.35

Table 2: Results of factor analysis of the scale *Models of acquisition of teaching competencies of university teachers* (descriptive statistics of scale items).

* Factor saturations with an absolute value greater than 0.3 has been provided for easier interpretation.

Based on the analysis of the results (Table 2) by subscale item *Organized acquisition of teaching competencies* we notice that the lowest average central value ($M = 2.30$) and high standard deviation ($SD = 1.37$) were obtained for the item *through a pedagogical and psychological package, after employment at the university*. The results indicate the opinion of the majority of the respondents that very few teachers formally acquire teaching competencies by attending organised programmes after employment at the university, and the acquisition of these competencies is often based on *observing examples of good practice of colleagues from their own and other university institutions* ($M = 3.67$), whether it is the teaching activity of professors working at their institution or the good practice of other colleagues.

From the analysis of the results of the subscale *Unorganized acquisition of teaching competencies*, it is evident that the subjects are not unanimous in assessing the *targeted professional developments* ($M = 3.56$; $SD = 1.07$) and *postgradu-*

ate education ($M = 2.80$; $SD = 1.35$) as a way of acquiring teaching competencies. They probably believe that the contribution of such an improvement in teaching competencies depends on personal motivation and the desire to improve the quality of teaching.

The results encourage the opinion that the respondents believe that the offered formal educational programmes are not of adequate quality, that they do not have the desired effects on the participating teachers or that the teachers did not have the chance to participate in this type of organised education. Namely, their attitude is surprising considering that in the last part of the previous scale, they confirmed, with a high central value ($M = 4.2$), their support for the introduction of mandatory pedagogical-psychological education. The problem of the effectiveness of mandatory pedagogical-psychological education programmes has not been studied extensively, and the reviews of the research on such education concluded that there is little evidence of its positive impact on teaching and student learning (Gibbs and Coffey 2004; Ödalen et al. 2019; Postareff et al. 2007). On the other hand, informal forms of professional development such as courses and seminars, especially if they are not on-line, or following examples of good practice, which teachers independently decide to follow, achieved greater approval from respondents. These can certainly be important forms of improving university teaching, but the acquisition of teaching competencies should not be based solely on the goodwill of individual teachers; it is necessary to create quality mandatory programmes for the professional development of academic staff.

Conclusion

Although ministers of education and the European Quality Assurance Network in the European Higher Education Area have been advocating for years the importance of developing the teaching competencies of university teachers, promoting research into innovative learning and teaching strategies and demanding compulsory pedagogical and psychological education for higher education teachers, the improvement of teaching staff competencies remains a challenge at the European and national level.

Even though various researchers in Croatia have been continuously pointing to the need to develop a support program for the development of the pedagogical, psychological and methodical competencies of university teachers, no major shift has yet been observed, and the question arises whether higher education institutions are ready to make efforts to improve the quality of teaching in order to reach the vision of higher education development described by the representatives of the European education policies. The results of the research carried out within the project Educa-T (Projekt Educa-T 2016–2018) indicate that the leaders of the Croatian higher education institutions understand the importance of strategies for the development of learning and teaching quality, and the respondents proposed a set of measures that could be implemented in order to provide support for the development of basic teaching competencies and the assessment of innovative

practices in learning and teaching. However, these practices are applied periodically or on a voluntary basis, which is not sufficient for achieving continuous development. A good starting point would probably be a reform of the regulations defining employment at higher education institutions and of the Ordinance for Academic Advancement in the Republic of Croatia so that the learning and teaching quality is not inferior to scientific research work, which has a de-stimulating effect on teachers who are trying to improve their teaching methods.

The respondents participating in the pilot research agreed that formal completion of pedagogical and psychological education should be introduced for teachers who are being employed by the university and had not acquired it earlier; in order to maintain high-quality university teaching, it is not sufficient to have a thorough knowledge of the subject or to observe good practice examples, nor to be involved in targeted courses only occasionally. Improving learning and teaching in higher education institutions has taken such an important place in national and international education policy that we must not allow the improvement of teaching competence to depend on personal motivation and the desire to improve the quality of teaching work. Nowadays, at a time when universities have to compete with profound changes in the political, social, economic and cultural context in which they operate, an effective system of the quality assurance of teaching is indispensable, along with greater investment in improving teaching skills, especially at the beginning of an academic career when there is a beginner's enthusiasm for a successful future career, and then with mandatory lifelong training during the entire working life. Therefore, we agree with Marentič Požarnik (2020), who claimed that in order to raise the quality of teaching and learning in higher education, it is necessary to continuously promote and monitor the innovations and changes in the regulations that prevent their introduction, which requires courage and perseverance.

References

- Aškerc Veniger, K. (2016). University teachers' opinions about higher education pedagogical training courses in Slovenia. *CEPS Journal*, 6, issue 4, pp. 141–161.
- Biggs, J. and Tang, C. (2011). *Teaching for quality learning at university. What the student does* (4rd ed.). Maidenhead: Open University Press.
- Bognar, L. and Kragulj, S. (2010). Kvaliteta nastave na fakultetu [Quality of teaching at the university]. *Život i škola: časopis za teoriju i praksu odgoja i obrazovanja*, 56, issue 24, pp. 169–182.
- Brajdčić Vuković, M. (2013). Aktualni problemi profesionalne socijalizacije u novačkom sustavu: slučaj prirodnih i društvenih znanosti [Current problems of professional socialization in the novice system: the case of natural and social sciences]. *Revija za socijalnu politiku*, 20, issue 2, pp. 99–122.
- Bucharest Communiqué. (2012). Bucharest: European Higher Education Area. Retrived from https://www.ehea.info/media.ehea.info/file/2012_Bucharest/67/3/Bucharest_Communique_2012_610673.pdf (Accessed on 8. 8. 2023).
- Četin C. and Bayrakci, M. (2019). Teacher professional development models for effective teaching and learning in schools. *The Online Journal of Quality in Higher Education*, 6, issue 1, pp. 32–38.

- Continuous development of teaching competences. Thematic peer group report.* (2019). Brussels: European University Association. Retrieved from <https://eua.eu/downloads/publications/eua%20tpg%20report%203%20-%20continuous%20development%20of%20teaching%20competences.pdf> (Accessed on 13. 9. 2022).
- Domović, V., Ledić, J. and Crnčić Sokol, M. (2018). *Priručnik za unapređenje kompetencija nastavnika u visokom obrazovanju* [Manual for the improvement of the competencies of teachers in higher education]. Zagreb: Ministarstvo znanosti i obrazovanja.
- Duță N. and Foloștină R. (2014). Psycho-pedagogical training needs of university teaching staff – A comparative study. *Procedia - Social and Behavioral Sciences*, 141, pp. 453–458.
- Dužević, I., Baković, T. and Delić, M. (2017). *Analiza stanja i aktivnosti koje se provode na visokim učilištima u Republici Hrvatskoj sa svrhom unapređenja kvalitete učenja i poučavanja* [Analysis of the situation and activities carried out at universities in the Republic of Croatia with the aim of improving the quality of learning and teaching]. Retrieved from <http://educa-t.hr/wp-content/uploads/2018/01/recenzija-izvjestaja.pdf> (Accessed on 13. 9. 2022).
- Errico, G. (2017). Miglioramento della didattica universitaria e valutazione della qualità: politiche ed esperienze nel contesto italiano [Improvement of university teaching and quality assessment: policies and experiences in the Italian context]. *Rivista Scuola IaD*, issue 17–18.
- European Commission. (2013). *High level group on the modernisation of higher education: Report to the European Commission on improving the quality of teaching and learning in Europe's higher education institutions*. Publications Office. Retrieved from <https://data.europa.eu/doi/10.2766/42468> (Accessed on 13. 9. 2022).
- European principles for the enhancement of learning and teaching.* (n. d.). Retrieved from <https://www.eua.eu/downloads/content/ten%20european%20principles%20for%20the%20enhancement%20of%20learning%20and%20teaching16102017.pdf> (Accessed on 13. 9. 2022).
- Felisatti, E. and Serbati, A. (2015). Apprendere per imparare: formazione e sviluppo professionale dei docenti universitari. Un progetto innovativo dell'Università di Padova [Understand in order to learn: training and professional development of university teachers. An innovative project by the University of Padua]. *Giornale Italiano della Ricerca Educativa*, 8, issue 14, pp. 323–339.
- Gianferrari, L. (2009). *Programma education FGA working paper n. 10* (1/2009). Fondazione Giovanni Agnelli. Retrieved from http://www.competenzedocenti.it/Documenti/programma_education_fga_working_paper_-_profilo_professionale_e_competenze_dei_docenti_neoassunti.pdf (Accessed on 13. 9. 2022).
- Gibbs, G. and Coffey, M. (2004). The impact of training of university teachers on their teaching skills, their approach to teaching and the approach to learning of their students. *Active Learning in Higher Education*, 5, issue 1, pp. 87–100.
- Guskey, T. R. (2000). *Evaluating professional development*. Thousand Oaks, CA: Corwin Press.
- Hagström, E. and Lindberg, O. (2012). Three theses on teaching and learning in higher education. *Teaching in Higher Education*, 18, issue 2, pp. 1–10.
- Höhle, E. A. and Teichler, U. (2013). The academic profession in the light of comparative surveys. In: B. Kehmand and U. Teichler (eds.). *The academic profession in Europe: New tasks and new challenges*. Dordrecht: Springer, pp. 23–38.
- Kalin, B. (2004). O nastavničkoj kompetenciji sveučilišnih nastavnika [About the teaching competencies of university teachers]. *Metodički ogledi*, 11, issue 1, pp. 43–62.

- Kovač, V. (2001). *Oposobljavanje i usavršavanje sveučilišnih nastavnika* [Training and advanced training of university teachers]. Rijeka: Filozofski fakultet u Rijeci.
- Lindberg-Sand, Å. and Sonesson, A. (2008). Compulsory higher education teacher training in Sweden: Development of a national standards framework based on the scholarship of teaching and learning. *Tertiary Education and Management*, 14, issue 2, pp. 123–139.
- Marentić Požarnik, B. (2009). Improving the quality of teaching and learning in higher education through supporting professional development of teaching staff. *Napredak*, 150, issue 3/4, pp. 341–359.
- Marentić Požarnik, B. (2020). Improving teaching and learning in higher education by training tertiary level educators in Slovenia: Developments, experiences and problems. *Studies in Adult Education and Learning*, 26, issue 2, pp. 15–32.
- Marentić Požarnik, B. and Lavrič, A. (2015). Fostering the quality of teaching and learning by developing the »neglected half« of university teachers' competencies. *CEPS Journal*, 5, issue 2, pp. 73–93.
- Miočić, I. (2017). Nastavničke kompetencije sveučilišnih nastavnika: izazovi i očekivanja [Teaching competencies of university teachers: challenges and expectations]. *Školski vjesnik: časopis za pedagogijsku teoriju i praksu*, 66, issue 1, pp. 63–76.
- Mužić, V. (2004). *Uvod u metodologiju istraživanja odgoja i obrazovanja* [Introduction to Education Research Methodology]. Zagreb: Educa.
- Nove boje znanja, *Strategija obrazovanja znanosti i tehnologije* [New colours of knowledge. Science and Technology Education Strategy]. (2014). Zagreb: Ministarstvo znanosti, obrazovanja i sporta. Retrieved from <https://mzo.gov.hr/UserDocsImages/dokumenti/Obrazovanje/Strategija%20obrazovanja,%20znanosti%20i%20tehnologije.pdf> (Accessed on 13. 9. 2022).
- Ödalen J., Brommesson D., Erlingsson G. Ó., Schaffer J. K. and Fogelgren M. (2019). Teaching university teachers to become better teachers: the effects of pedagogical training courses at six Swedish universities. *Higher Education Research & Development*, 38, issue 2, pp. 339–353.
- Odluka o nužnim uvjetima za ocjenu nastavne i znanstvenostručne djelatnosti u postupku izbora u znanstveno-nastavna zvanja [Decision on the necessary conditions for the evaluation of teaching and scientific professional activities in the selection process for scientific and teaching professions] (2017). *Narodne novine*, 122/2017 (8. 12. 2017). Retrieved from https://narodne-novine.nn.hr/clanci/sluzbeni/full/2017_12_122_2788.html (Accessed on 13. 9. 2022).
- Paris Communiqué. (2018). Paris: European Higher Education Area. Retrieved from https://www.ehea.info/media.ehea.info/file/2018_Paris/77/1/EHEAParis2018_Communique_final_952771.pdf (Accessed on 13. 9. 2022).
- Peko, A. and Mlinarević, V. (2012). Didaktičke kompetencije visokoškolskih nastavnika u konceptu cjeloživotnog obrazovanja [Didactic competences of higher education teachers in the concept of lifelong education]. *Évkönyv*, 6, issue 1, pp. 65–75.
- Postareff, L., Lindblom-Ylänne, S. and Nevgi, A. (2007). The effect of pedagogical training on teaching in higher education. *Teaching and Teacher Education*, 23, issue 5, pp. 557–571.
- Pravilnik o provedbi postupka izbora/reizbora u zvanja i na odgovarajuća radna mjesta Sveučilišta Josipa Jurja Strossmayera u Osijeku [Regulations on the Appointment to Titles] (2022) Retrieved from <http://www.unios.hr/wp-content/uploads/2022/06/Pravilnik-o-provedbi-postupka-izbora-reizbora-u-zvanja-i-na-odgovaraju%C4%87a-radna-mjesta-Sveu%C4%8Dili%C5%A1ta-Josipa-Jurja-Strossmayera-u-Osijeku-pro%C4%8Di%C5%A1%C4%87eni-tekst.pdf> (Accessed on 14. 8. 2023).

- Projekt Educa-T* [Project Educa-T]. (2016-2018). Zagreb: Ministarstvo znanosti i obrazovanja (MZO). Retrieved from <https://educa-t.hr/> (Accessed on 13. 9. 2022).
- Rački, Ž., Peko, A. and Varga, R. (2010). Nužnost cjeloživotnog obrazovanja sveučilišnih nastavnika: pedagoško-psihološka i didaktičko-metodička izobrazba [The necessity of lifelong education of university teachers: pedagogical-psychological and didactic-methodical training]. *Modszertani Kozlony*, 1, issue 1, pp. 36–49.
- Report on Qualifications Frameworks*. (2009). Strasbourg: Coordination Group. Retrieved from https://www.ehea.info/media.ehea.info/file/2009_Leuven_Louvain-la-Neuve/91/4/2009_Q_F_CG_report_594914.pdf (Accessed on 13. 9. 2022).
- Rome Ministerial Communiqué. ANNEX III*. (2020). Rome: European Higher Educational Area. Retrieved from http://www.ehea.info/Upload/Rome_Ministerial_Communique_Annex_III.pdf (Accessed on 13. 9. 2022).
- Sparks, D. and Loucks Horsley, S. (1989). Five models of staff development for teachers. *Journal of Staff Development*, 10, issue 4, pp. 40–57.
- Standardi i smjernice za osiguravanje kvalitete na europskom prostoru visokog obrazovanja* [Standards and Guidelines for Quality Assurance in the European Higher Education Area] (2005). Zagreb: Agencija za znanost i visoko obrazovanje. Retrieved from the http://www.enqa.eu/files/ESG_v03.pdf (Accessed on 16. 12. 2022).
- Standards and guidelines for quality assurance in the European higher education area*. (2015). Brussels: European Association for Quality Assurance in Higher Education. Retrieved from https://www.enqa.eu/wp-content/uploads/2015/11/ESG_2015.pdf (Accessed on 13. 9. 2022).
- Strategija obrazovanja, znanosti i tehnologije* [Education, science and technology strategy] (2014). Zagreb: Hrvatski sabor. *Narodne novine*, 124/2014. Retrived from https://narodne-novine.nn.hr/clanci/sluzbeni/2014_10_124_2364.html (Accessed on 7. 8. 2023).
- Turk, M. and Ledić, J. (2016a). *Kompetencije akademske profesije. Fata volentem ducunt, nolentem trahunt* [Competencies of the academic profession. Fata volentem ducunt, nolentem trahunt]. Rijeka: Filozofski fakultet u Rijeci.
- Turk, M. and Ledić, J. (2016b). Between teaching and research: challenges of the academic profession in Croatia. *Center for Educational Policy Studies Journal*, 6, issue 1, pp. 95–111.
- Yerevan Communiqué*. (2015). Yerevan: European higher educational area. Retrieved from [YerevanCommuniquéFinal_613707.pdf](http://www.ehea.info/Upload/Yerevan_Communique_Final_613707.pdf) (ehea.info) (Accessed on 7. 8. 2023).
- Zakon o odgoju i obrazovanju u osnovnoj i srednjoj školi* [Education in Primary and Secondary School Act] (2008). Zagreb: Hrvatski sabor. *Narodne novine*, 87/2008. Retrived from https://narodne-novine.nn.hr/clanci/sluzbeni/2008_07_87_2789.html (Accessed on 8. 8. 2023).
- Zakon o znanstvenoj djelatnosti i visokom obrazovanju* [Act on Scientific Activity and Higher Education] (2017). Zagreb: Hrvatski sabor. *Narodne novine*, 123/03, 198/03, 105/04, 174/04, 02/07, 46/07, 45/09, 63/11, 94/13, 139/13, 101/14, 60/15, 131/17. Retrived from <https://www.zakon.hr/z/320/Zakon-o-znanstvenoj-djelatnosti-i-visokom-obrazovanju> (Accessed on 14. 8. 2023).

Snježana MOČINIĆ (Univerza v Puli, Pedagoška fakulteta, Hrvaška)

Lorena LAZARIĆ (Univerza v Puli, Pedagoška fakulteta, Hrvaška)

Ivana Paula GORTAN CARLIN (Univerza v Puli, Pedagoška fakulteta, Hrvaška)

PEDAGOŠKE IN PSIHOLOŠKE KOMPETENCE UNIVERZITETNIH UČITELJEV: NJIHOV POMEN ZA NAPREDOVANJE V HRVAŠKEM KONTEKSTU

Povzetek: Namen dela je preveriti, ali so raziskave v zvezi s pedagoško-didaktičnimi in psihološkimi kompetencami še vedno naklonjene poklicnemu napredovanju visokošolskih učiteljev in kateri modeli razvoja učiteljskih kompetenc se običajno uporabljajo. Raziskava je bila izvedena z novo izdelanim vprašalnikom, za katerega je bila ugotovljena zanesljivost $\alpha = 0,804$. Uporabljena je deskriptivna in kavzalno-neeksperimentalna metoda pedagoškega raziskovanja z uporabo ankete, ocene stališč in analize pedagoške dokumentacije. V raziskavi je sodelovalo pedagoško osebje Univerze Juraj Dobrila v Pulju na vseh stopnjah akademske kariere. Anketiranci menijo, da je za zaposlitev na univerzi nujno uvesti obveznost formalne končane pedagoško-psihološke izobrazbe. Po njihovi oceni poglobljeno poznavanje vsebine predmeta, opazovanje primerov dobre prakse in občasna udeležba na ciljnih predmetih ne zadoščajo za izvajanje kakovostnega univerzitetnega pouka. Analiza sprejetih rezultatov lahko uporabimo kot znanstveni prispevek k tematiki, povezani z razvojem in vrednotenjem pedagoško-psiholoških kompetenc visokošolskih učiteljev. Profesionalizacija poučevanja, skupaj z izboljšanjem pristopov k poučevanju in uvajanjem aktivnih metod učenja, ostaja prednostno področje v Republiki Hrvaški, saj je v primerjavi z učitelji v osnovnih in srednjih šolah večina univerzitetnih profesorjev na začetku svoje akademske kariere imajo minimalno ali nič pedagoško-didaktične izobrazbe.

Ključne besede: pedagoške in psihološke kompetence, visokošolski učitelji, sodobna univerza, pedagoško-psihološka izobrazba

Elektronski naslov: igcarlin@unipu.hr