

Matilda Karamatić Brčić, Višnja Perin

REFLECTION ON KEY COMPETENCIES FOR LIFELONG LEARNING: A STRUCTURAL ANALYSIS OF TEACHERS' STUDY PROGRAMMES IN THE REPUBLIC OF CROATIA

ABSTRACT

Educating teachers on the initial level of the teachers' studies programmes' compulsory and elective courses allows these educators to acquire the competencies they need to transmit and teach the same information to children. In the realm of contemporary educational practices, acquiring competency in teaching work is part of a process of lifelong learning. This paper will analyse the structure of Croatian teachers' studies programmes, focusing on the name of the course and the teaching workload of the same, with an emphasis on the concept of key competencies for lifelong learning according to the European Framework of Reference. In this paper, compulsory and elective courses were classified according to the following competencies for lifelong learning: communication in the mother tongue, communication in foreign languages, mathematical competencies, basic competencies in science and technology, and digital competency. The results reveal that there are no statistically significant differences among Croatian teachers' studies programmes in terms of teaching workload, taking into account how competent the teacher is considered to be; there are statistically significant differences among the Croatian teachers' studies programmes in the possible teaching workload for elective courses because of teacher's perceived competency level. Despite the fact that all of the teachers' studies programmes bestow the same title upon graduates, the analysis of access to teacher studies in the Republic of Croatia shows that the screening criteria are different in study programmes at different universities.

Keywords: *concept of key competencies, lifelong learning, teachers' education, teaching study*

REFLEKSIJA O KLJUČNIH KOMPETENCAH PRI VSEŽIVLJENJSKEM UČENJU: STRUKTURNA ANALIZA ŠTUDIJSKIH PROGRAMOV ZA UČITELJE V REPUBLICI HRVAŠKI – POVZETEK

Izobraževanje učiteljev na začetni stopnji obveznih in izbirnih študijskih programov za učitelje slednjim omogoča pridobivanje kompetenc, ki jih potrebujejo za posredovanje istih informacij otrokom. V kontekstu

Ph. D. Matilda Karamatić Brčić, University of Zadar, Department of Education, mkarama@unizd.hr

Ph. D. Višnja Perin, Croatian Employment Service, Regional Office Zadar, visnja.perin@hzz.hr

sodobnih izobraževalnih praks je pridobivanje kompetenc za učiteljsko delo del procesa vseživljenjskega učenja. Članek analizira strukturo hrvaških študijskih programov za učitelje, pri čemer se osredotoča na naslove programov in delovne obremenitve, ki jih prinašajo, s poudarkom na konceptu ključnih kompetenc za vseživljenjsko učenje v skladu z evropskim referenčnim okvirom. Obvezni in izbirni predmeti so v članku klasificirani glede na naslednje kompetence za vseživljenjsko učenje: komunikacija v maternem jeziku, komunikacija v tujih jezikih, matematične kompetence, osnovne kompetence v znanosti in tehnologiji ter digitalne kompetence. Upoštevajoč predpostavljeno kompetentnost učiteljev, so rezultati razkrili, da med hrvaškimi študijskimi programi za učitelje ni večjih statistično pomembnih razlik v smislu delovnih obremenitev; obstajajo pa statistično znatne razlike med hrvaškimi študijskimi programi za učitelje pri možnih delovnih obremenitvah ob izbirnih predmetih zaradi domnevne stopnje kompetentnosti. Kljub temu, da vsi študijski programi za učitelje v Republiki Hrvaški svojim diplomatom prinesejo enak akademski naziv, pa analiza dostopnosti učiteljskih študijskih programov razkriva, da se izbirni kriteriji po posameznih univerzah razlikujejo.

Ključne besede: *koncept ključnih kompetenc, vseživljenjsko učenje, izobraževanje učiteljev, učiteljski študij*

INTRODUCTORY CONSIDERATIONS

The Role and Importance of the Development of Competencies for Lifelong Learning among Teachers

Recently, there have been an increased number of discussions on lifelong learning, i.e. on the activity of learning throughout life, with the aim of improving knowledge, skills, and competencies for personal, civic, social, and business prospects. The term 'lifelong learning,' including 'learning,' was preceded by many other terms that focused on a process of continuous improvement, such as the terms 'continuing education' and 'continuing and recurrent education.' Lifelong education for teachers (Vizek Vidović, 2005) is one of the key issues in every country, along with formal education and professional development in later work. Teachers' professional development is becoming a continuous requirement in the educational profession, as well as being an important precondition for the upgrading of existing competencies required for high-quality educational work in compliance with the requirements of modern curricula. The title 'teaching profession' symbolises encompasses, of course, teaching, also including in its scope all the characteristics of teaching, as well as its position in society (Cindrić, 1995). Since changes in society demand changes in educational systems, changing the role and importance of the representation of certain key competencies among teachers that are important for quality professional work, as well as the intensity of the acquisition thereof, remain of great importance. In European educational systems, as well as in those in Croatia and worldwide, curriculum changes are directed at developing competencies related to and dependent on changes in the overall school practices, as well as on implementing those competencies necessary for the application of new methods and forms of work in the teaching profession. Therefore, this paper will present selected key competencies as defined by the European reference framework of core and elective courses in teachers' studies programmes in the Republic of Croatia.

The term 'lifelong education' originated in England in the 1820s, and replaced the term 'lifelong learning' in contemporary pedagogical theory and educational practice. Subsequent to a discussion of this, this paper will consider teachers' competencies in the lifelong learning process. In the early 1970s, numerous authors, encouraged by criticisms of the educational system, institutions, and society in general, began researching lifelong learning. One of the catalysts for this interest in the concept of lifelong learning was the UNESCO report on the same entitled „Learning to Be“ (UNESCO, 1972).

Lifelong learning has developed from an initial idea to a dominant principle and today determines in part the orientation of the development of many national educational systems. Its importance is noted in a number of international action plans, declarations, documents, and conferences (see for example *the European Commission Memorandum on Lifelong Learning, Establishing a Unique European Area of Lifelong Learning, It is Never Too Late to Learn, the Action Plan on Adult Learning: It is Always a Good Time to Learn, and others*). Descriptions of a 'society that learns' are often mentioned in conjunction with the term 'lifelong learning'; therefore, these two terms and their interrelation affect inputs in the theoretical debate, as well as to policy documents. The role of lifelong learning in European educational policies after the year 2000 has been outlined by the Lisbon Process (Žiljak, 2005). The European Union's stance on the concept of lifelong learning has confirmed the assumption of the „Lisbon Strategy“ in March 2000 (European Council, 2000). The emphasis here is on concepts such as knowledge society, learning society, knowledge-based economy, lifelong learning, and integration policies. The improvement of lifelong learning is necessary for a successful transition towards a knowledge-based society. Lifelong learning has become a necessity of modern times; it has become an important process of the educational system, as well as of the teaching profession. Consequently, in the 2002 White Paper on Croatian Education, Concepts of Changes of the Educational System in the Republic of Croatia, departs from the concept of lifelong learning, and from the concept of a 'society that learns.' This document primarily strives to shape the policy of lifelong learning on which the educational policies of countries and learning societies are established.

In 2006, the European Union adopted the Recommendation on Key Competencies for Lifelong Learning (European Parliament and the Council, 2006), which, in the context of this study, represents a criterion for the classification of compulsory and elective courses in teachers' studies programmes in Croatia. Key competencies are determined as a portable, multifunctional complex of knowledge, skills, and attitudes necessary for all individuals to reach personal fulfillment and development, to experience social inclusion, and to gain or maintain employment. These competencies should be developed by the end of the obligatory education or training and are the foundation for further learning as part of lifelong learning. The European Union has defined eight key competencies for lifelong learning, and they are defined as follows:

Table 1: Key competencies for lifelong learning.

communication in the mother tongue	<ul style="list-style-type: none"> • the ability to properly and creatively use oral and written expressions, to interpret concepts, thoughts, feelings, attitudes, and facts, and to interact linguistically in a variety of social and cultural situations: education, work, leisure, and everyday life • an increasing awareness of the impact of language on others and the use of appropriate language in a positive and socially responsible manner
communication in foreign languages	<ul style="list-style-type: none"> • the ability to understand oral and written expressions and to interpret concepts, thoughts, feelings, attitudes, and facts in a foreign language in a variety of cultural and social situations • the development of skills for intercultural understanding
mathematical competence and basic competencies in science and technology	<ul style="list-style-type: none"> • the ability to use knowledge and methodologies that explain the natural world for the sake of asking questions and drawing conclusions based on facts • technological competency is perceived as a qualification for the application of scientific knowledge and methodology in response to human needs and desires
digital competency	<ul style="list-style-type: none"> • qualifications for the confident and critical use of ICT for work, in personal and social life, and in communication • basic ICT skills and abilities: the use of computers to retrieve, assess, store, create, display, and exchange information and to develop collaborative networks via the internet
learning to learn	<ul style="list-style-type: none"> • learning and persistence in learning, the organisation of one's own learning, including the effective management of time and information in independent learning, and learning in a group
social and civic competency	<ul style="list-style-type: none"> • competency in interpersonal and intercultural cooperation
initiative and entrepreneurship	<ul style="list-style-type: none"> • an individual's ability to transform ideas into action, including creativity, innovation, a willingness to take risks, and the ability to plan and manage projects in order to achieve goals • a basis for managing the individual's professional, social, and everyday life
cultural awareness and expression	<ul style="list-style-type: none"> • the importance of the creative expression of ideas, experiences, and emotions in a series of art and media, including music, dance, theater, and the literary and visual arts • includes knowledge and awareness of local, national, and European cultural heritage, and of the individual's place in the world

Source: Prepared by the authors according to data available at <http://europa.eu/legislation_summaries/education_training_youth/lifelong_learning/c11090_en.htm>

In this study, the concept of core competencies is the criterion by which the structure of teacher training curricula at the national level will be analysed. Teachers' acquisition of the necessary competencies in contemporary educational practice directs the process of of lifelong learning, also encouraging teachers to continually and continuously pass on the information learned to students. The concept of lifelong learning is most often

associated with economic goals, such as becoming more competitive and being employed long-term. However, one should not ignore the equally important objectives that contribute to the more active role of the individual in society, such as those of encouraging social inclusion, active citizenship, and personal development. Education as a process of acquiring knowledge, skills, and habits serves as a basis for the creation of a scientific worldview. As lifelong learning encompasses intentional and unintentional (accidental), i.e., experiential learning, its role in teachers' pedagogical work focuses on continually acquiring and applying new knowledge, methods, and forms of work in the context of school practices. According to the 2007 UNESCO report, lifelong learning is significant because of the three closely related levels of development that are ranked according to the individual and age. It is about personal and cultural development, and involves social development as a factor in the community, professional development, and work.

Key Competencies as an Integral Part of the National Curriculum Framework

Changes in the socio-cultural context of a country require changes in educational systems in Europe and worldwide. Societies that foster new concepts of learning develop and tailor them for the individual person and for his or her abilities within teaching culture, in which knowledge is becoming an ongoing process that begins with birth. According to the European reference framework of key competencies, lifelong learning consists of knowledge, skills, and attitudes, and these are applied in preschool, elementary school, high school, and higher education (European Commission, 2005). Since European systems of education differ, the concept of key competencies is recognised as a common basis for educational systems in which each person will be provided with equal opportunities for continuous learning in a knowledge society, and with access to later employment. The purpose of a European reference framework of key competencies for lifelong learning is to support national educational policies in curriculum reforms and in successful incorporation of key competencies for lifelong learning (European Commission, 2005). Therefore, national curricula have become the foundational documents of educational policy, the content of which elucidate the values, aims, principles, and content of educational foci.. One of the main intentions of curriculum policy in the EU and other countries is the development of a national curriculum focused on students' competencies (National Curriculum Framework for Preschool Education, General Compulsory and Secondary Education, 2011). This is confirmed by the 1996 UNESCO International Commission for the Development of Education report for the 21st century, in which key competencies are called „pillars of education,“ that will allow for lifelong learning. According to this report, throughout life, an individual must „learn to know,“ „learn to do,“ „learn to live together,“ and „learn to be,“ (Delors, 1998). In order to include key competencies in the educational system, it is necessary to assure the appropriate changes in work methods in pre-service education and in the professional development of teachers in the methods and forms of teaching and learning. As the foundational document of educational policy of each country, the curriculum is the common ground for the planning of educational tasks, as well as for the evaluation of student achievements. Teachers' acquisition of key competencies at the level of initial education focuses on the planning of educational processes at

school, as well as on the high-quality transmission to pupils of required competencies for life and for work. The school curriculum, unlike a syllabus, refers to the entire practice of education and to all participants involved. The curriculum is not something externally imposed, but something that occurs within the organisation of school work while emphasising the importance of positive cooperation among all participants of the school's process. The content of curriculum refers to the knowledge, skills, and values that should be achieved with the appropriate means of teaching and learning (Vican, 2006). A modern school has many diverse functions and roles in helping pupils to achieve educational goals and tasks. Marsh (1992), consequently, lists five basic categories that are directly or indirectly relevant to each approach to curriculum development, and these are the following: student's perspective, teacher's point of view, the strategy of curriculum planning, and the development and management of the curriculum. According to Bognar and Matijević (2005), the curriculum is a technical plan for achieving planned, programmed, and measurable effects to realise the goals set for oneself or others. Tyler's conception of curriculum boils down to four basic questions: What tasks do we want to accomplish? Which educational experiences will enable the achievement of these tasks? How do we efficiently organise these experiences? How can it be determined that these goals have been achieved? (Tyler, 1949). The curriculum is a sequence of learning materials by annual files, whereby it was most commonly identified with syllabus (Poljak, 1991) or is considered to be a list of knowledge in need of transfer, that knowledge which is aimed at teaching processes and teaching practice (Smith, 2000). From the above definition of the concept of curriculum, one can say that it is comprised of the following: educational goals, goals for learning, curricula of certain subjects, certain didactic and methodical aids, and the organisational aspects of school structure and evaluation. The curriculum is, therefore, not a syllabus, but, rather, a process of determination from the perspective of educational policy on a macro-level and of individual schools on a micro-level.

According to the National Curriculum Framework for Preschool Education, General Compulsory and Secondary Education (2011), the basic components of curricula are socio-cultural and educational values, goals that express the expected student achievement by answering questions which knowledge every student should adopt and which skills, abilities and attitudes should be developed, the principles as guidelines for educational activities, methods, means and forms of work, educational areas as basic content and evaluation and evaluation of student achievement and school. Since 2005, within the Croatian educational system, future teachers of lower grades of elementary school (1st to 4th grade) are educated at university institutions, that is, universities, where they study for five years (10 semesters, 300 ECTS points). Following the completion of their studies, they obtain the title of Master of Primary Education. Class teachers are educated according to the so-called 'integrated model,' in which the BA and MA degrees are combined into a single unit. This model has been chosen because of the ability to disperse teaching requirements throughout the four grades of schooling, during which one teacher teaches the same group of pupils all required school subjects for all four years. A common position of universities is that of educating classroom teachers by applying the 'simultaneous model,' which lasts five years and supports the acquisition of necessary competencies (Domović, Gehrman, Knežević, Oreški,

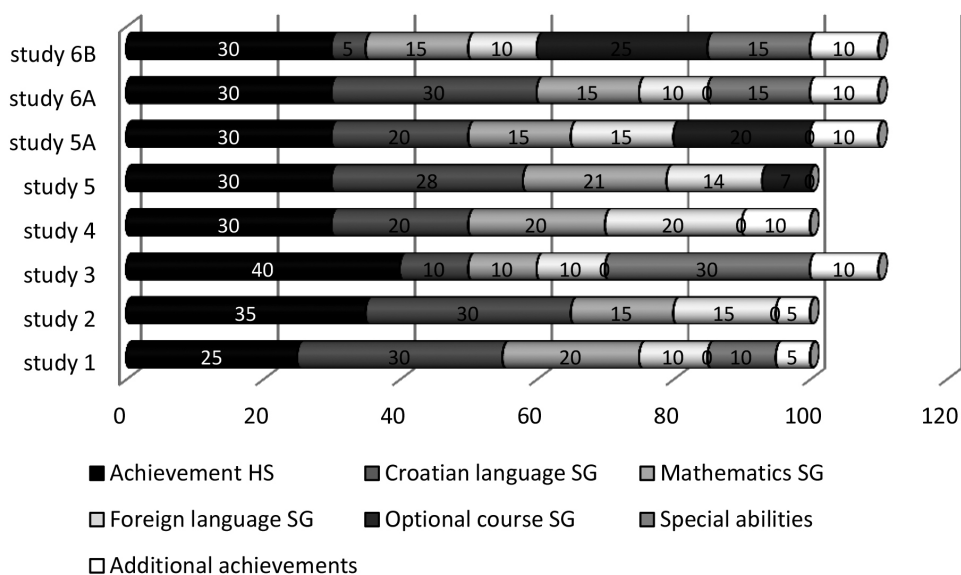
Petravić, Šimović and Vican, 2013). During university education, and later, in the schools, teachers focus on the acquisition and transfer of key competencies for life and work. Consequently, the application of new methods and forms of work, aligned with curriculum changes, occurs as a new task of the school process.

How to Become a Teacher in the Framework of the ,o-o‘ System in Croatia

In Croatia, the teachers‘ studies programme is available at six universities (either at Teachers‘ Colleges or within teacher courses organised within the the Faculty of Philosophy or a department of the university), upon the completion of which one is awarded the title Master of Primary Education. The duration of study is five years (4 +1 at the Teachers‘ College) and the teaching workload of teachers in training is 300 ECTS points. The study programme titles differ, but the most common name is *Integrated Academic Undergraduate and Postgraduate Teacher Education Studies*. Other titles of study programmes include the following: *Integrated Academic Undergraduate and Postgraduate three-year University Study for Teachers*, *Integrated Academic Undergraduate University Study for Teachers*, *Integrated Academic Undergraduate and Postgraduate University Study for Teachers*, and *Integrated University of Two Level Study for Teachers*. Aside from the structure of the home institution, studies are broken down into one unit of study at the Department of Teacher Education Studies and two at the Faculty of Teacher Education.

For admission to the teachers‘ studies programme, the following elements are evaluated: previous academic achievement, state graduation exam grades of mandatory and elective subjects, special abilities, and additional accomplishments during the future teacher’s

Image 1: Share of evaluation of the achievements for admission to the Teacher Education Studies in Croatia (HS = high school, SG= State Graduation).



previous education. Under the category of ,special abilities‘ are to be found, for example, estimated communicative competency and motivation for studying.

In evaluating the achievements for admission to the teachers‘ studies programmes in Croatia, the different elements of the evaluation are obvious. Since students gain the same title upon the completion of their teacher training programmes, it would be expected that the criteria for admission to various teachers‘ studies programmes would also be without any major differences.

RESEARCH METHODOLOGY

This paper will present an analysis of the structure of teacher studies‘ programmes in Croatia. Factors taken into consideration will be the title of the study programme and the educational workload of the same, based on the concept of key competencies for lifelong learning according to the European Framework of Reference (these elements being communication in the mother language, communication in foreign languages, mathematical competency, basic competencies in science and digital competency). This paper answers the following questions: What kind of competencies exist? How much of these competencies are recognizable? What are the differences in the representation of selected key competencies in the content structure of the curriculum of elective and mandatory courses in teachers‘ studies programmes in Croatia, since all courses are prepared so as to cover the same curriculum?

The main hypothesis is that neither the teaching workload nor the presence of selected competencies (according to the observed key competencies for lifelong learning) differs for future teachers in required versus in elective courses.

Goals

1. Identify the required and elective courses of teachers‘ studies programmes in Croatia.
2. Identify the teaching workload of compulsory and elective courses of Croatian teachers‘ studies programmes.
3. Classify by the name the compulsory and elective courses in all teachers‘ studies programmes in Croatia according to the concept of key competencies for lifelong learning: communication in the mother language, communication in foreign languages, mathematical competency, basic competency in science and technology, and digital competency.
4. Determine whether or not there is a difference in the teaching workload for compulsory courses of particular teachers‘ studies programmes according to each of the competencies observed within this study (see above).
5. Determine whether or not there is a difference in the teaching workload for elective courses of certain teachers‘ studies programmes according to each of the competencies observed within this study (see above).

Methods

In teacher‘s studies programmes at the Universities of Zagreb, Zadar, Pula, Rijeka, Split, and Osijek, compulsory and elective courses will be classified by course title and teaching

workload, according to the concept of key competencies for lifelong learning. Information on courses and teaching workload will be collected from the official websites of the teachers' studies programmes and data evaluation for admission to the same from the following web page: <https://www.postani-student.hr/>.

Qualitative methods will be used to analyse the collected data and courses will be sorted according to key competencies and by the name of the course. The teaching workload and elements of evaluation will be analysed using descriptive statistics and non-parametric statistical methods.

RESULTS AND DISCUSSION

In the next section of the paper is an overview of compulsory and of elective courses, and teaching workload arranged by name within the aforementioned key competencies. Under the elective courses, there are courses listed that are attended by all students, regardless of their enrolled course.

Obligatory Courses

Below is an overview of obligatory courses within the framework of selected competencies according to relevant studies.

Table 2: Obligatory courses – communicational competency in the mother tongue.

Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6
Croatian I and II	Croatian I and II	Croatian I and II	Croatian	Croatian I and II	Croatian
Croatian Children's Literature	Croatian Children's Literature	Croatian Children's Literature	Children's Literature	Children's Literature	Croatian Children's Literature
Methods of Teaching Croatian Language and Literature I, II, III, and IV	Methods of Teaching Croatian Language and Literature I, II, and III	Methods of Teaching Croatian I, II, and III	Methods of Teaching Croatian I and II	Methodology of Croatian I, II, and III	Methodology of Croatian I, II, III, and IV
		Integrated Language Skills	Text Formatting		Croatian Grammar
		Youth Literature	Language Culture		Croatian Orthography
		Croatian Literary Heritage			World Children's Literature
		Language Culture			
33 ECTS	29 ECTS	44 ECTS	32 ECTS	27 ECTS	35 ECTS

Table 3: Obligatory courses – communicational competency in a foreign language.

Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6
Foreign Language	Foreign Language I and II	Foreign Language I and II	Foreign Language I and II	English Language I and II	Teaching English I and II
					Teaching German I and II
2 ECTS	7 ECTS	9,5 ECTS	4 ECTS	9 ECTS	12 ECTS

Table 4: Obligatory courses – mathematical competency and basic competencies in science and technology.

Study 1	Study 2	Study 3	Study 4	Study 5	Study 6
Mathematics I, II, III, and IV	Introduction to Mathematics	Mathematics I and II	Mathematics and Mathematics I	Mathematics I and II	Mathematics I and II
Teaching Mathematics I, II, III, and IV	Teaching Mathematics I, II, and III	Teaching Mathematics I, II, and III	Teaching Mathematics I and II	Teaching Mathematics I, II, and III	Teaching Mathematics I, II, III, and IV
Methods of Teaching Science and Society I, II, III, and IV	Methodology of Science and Society I, II, and III	Methods of Teaching Science and Society I, II, and III	Methodology of Science and Society I and II	Methodology of Science and Society I, II, and III	Methodology of Science and Society I, II, III, and IV
Natural Sciences	Natural Sciences	Natural Sciences	Natural Sciences I and II	Natural Sciences	Natural Sciences I, II, III, and IV
Geography	Geography	Geography	Geography		Geography I and II
	Elementary Geometry	Research-Directed Teaching of Nature and Society	Spreadsheet	Experiments in Nature and Society	
	Sets of Numbers		Elementary Mathematics	Extracurricular Science and Math Activities	
	Basics of Technical Culture		Statistics	Introduction to Logic and Sets	
			Ecology		
47 ECTS	46 ECTS	54 ECTS	51 ECTS	44 ECTS	49 ECTS

Table 5: Obligatory courses within the framework of digital competency.

Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6
Computer Science	Basics of Computer Science	Computer Science	Computer Tools for Teaching	Computer Science	Introduction to Computer Science
	The use of ICT in Education	Computer Practicum	Computer Science in Education	Teaching with Computers	
			Internet in Children's Upbringing and Education		
			Programming Language Logo		
2 ECTS	6 ECTS	9 ECTS	9 ECTS	4 ECTS	12 ECTS

Image 2: Share of teaching load in the total teaching load – obligatory courses.

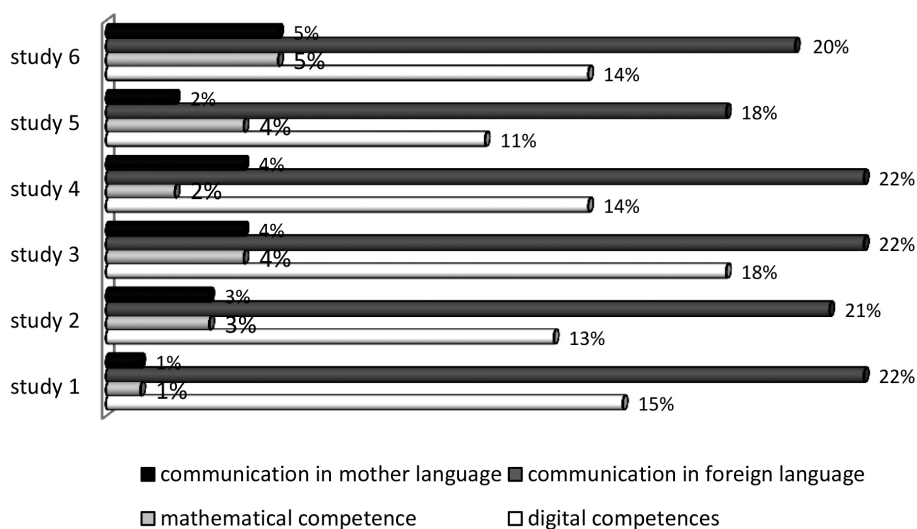


Table 6: Teaching workload according to study programmes and competencies - obligatory courses.

	Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6
Teaching workload (ECTS) for the competency of communication in the mother language - obligatory courses.	33	29	44	32	27	35
Yates $\chi^2 = 4,92$, df = 5, p=0.4257						
	Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6
Teaching workload (ECTS) for the competency of communication in a foreign language - obligatory courses.	2	7	10	4	9	12
Yates $\chi^2 = 6,294$, df = 5, p=0.2787						
	Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6
Teaching workload (ECTS) for mathematical competency and basic competencies in science and technology - obligatory courses.	47	46	54	51	44	49
Yates $\chi^2 = 1,398$, df = 5, p=0.9245						
	Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6
Teaching workload (ECTS) for digital competency - obligatory courses.	2	6	9	9	4	3
Yates $\chi^2 = 5,694$, df = 5, p=0,3371						

Considering the observed competencies, there are no statistically significant differences among teachers' studies programmes in Croatia in terms of teaching workload. Regarding the individual study programmes and the teaching workload related to the observed competencies, in all of the programmes, the teaching workload for communication competencies in the native language, mathematical competency, and basic competencies in science and technology is much more demanding than that of competency in foreign language communication and digital competency.

Elective Courses

Below is an overview of elective courses within the framework of selected competencies according to study programmes.

Table 7: Elective courses – communication in the mother tongue.

Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6
Native Speech in Educational Institutions, Language Resources Style, Croatian Literature in the European Context, History of Croatian Standard Language, Fundamental Concepts Literary Theory, Croatian Literature of the Middle Ages and Renaissance, Standard Croatian Language, Acquisition of Croatian Standard Language, Croatian Literature from the Renaissance through the Enlightenment, Croatian Oral Literature, Contemporary Croatian Literature – Romanticism, Contemporary Croatian Literature – from Modernity to the Present, Croatian Literature in Diaspora	Extracurricular Literary Genres	Introduction to Literature, Regional and Popular Folk Literature, Chakavian Dialect Literature, Public Speaking, Writing Processes, Stylistics, The Interpretation of Literary Works, Language and Social context, Language Families	Lexicology and Word Formation in Croatian, Theatre Education, The Correlative Integration System in Croatian, Oral and Written Communication	Drama and Theatre Production, Introduction to Literary Theory, Language Communication, Croatian Children's Literature, Croatian Dialects and Their Regions of Origin in Teaching, Creative Writing	History of the Croatian Language, Language Expression, Dialectology of the Croatian language, Older Croatian Literature / Kajkavian Dialect Review, Introduction to the Literature, Contemporary Croatian Literature / Čakavian and Štokavian Dialect, Croatian Grammar, Introduction to World Literature, Standard Croatian I and II, Children's Literature I and II, Youth Literature / Distinctive Grammar, Drama Education, Traditional Media in the Croatian Language Teaching / Forms of Kajkavian Oral Literature, Multimedia in Croatian Language Teaching, Puppetry / Kaikavian Children's Literature, Public Speaking / A Field Investigation of Kajkavian Local Dialects, Contemporary Methodological Theories / Methodology of Kajkavian Dialects and Literature
45	4	20	13	20	60
ECTS					

Table 8: Elective courses – communication in a foreign language.

Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6
Foreign Language I and II	Phonetics and Phonology of English I and II, Introduction to English Grammar, Language Exercises I and II, Oral Exercises I and II, The Anglo-Saxon World I and II, Introduction to Translation, Drama Techniques in English Language Teaching, Modern English Language II, Children's Literature in English I and II, Selected Texts from English Literature, Anglicism, Methods of English Language Teaching I, Early English Language Learning	Italian I, II, III, IV, V, and VI, German I, II, III, IV, V, and VI, English Phonetics and Phonology, Introduction to English Language and Linguistics, Language Exercises I, II, and III, English Grammar (Types of Words), English Grammar (Phrases and Sentences), Children's Literature in English, Learning English at School at an Early Age, Methods of English Language Teaching in the Early Years of School	Oral Exercises in English I, II, III, IV, and V, English Grammar I and II, Language Exercises in English I, II, III, IV, and V, Foreign Language III, Children's Literature in English II, English Language in Practice I and II, Children's Media Culture in English, Learning and Language Acquisition Theory, Methodology Exercises in English, Early Language Acquisition of English	Integrated Language Skills in English, The Anglo-Saxon World, Children's Literature in English, Foreign Language Learning Theory, English Language Usage in Teaching, Early Language Learning	
8 ECTS	52 ECTS	49 ECTS	63 ECTS	24 ECTS	0

Table 9: Elective courses – mathematics, science, and technology.

Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6
Natural Phenomena, The Technology and Laws of Physics	Introduction to Logic and Sets, Extracurricular IT and Technical Activities	Chemistry as a Part of Nature, Exploratory Learning: Nature and Society, Outdoor Instruction: Nature and Society, Selected Areas of the Instruction of Elementary Mathematics, Linear Algebra, Hydrogeography and Croatian Biogeographical Particularities, Selected Areas of the Instruction of Elementary Mathematics, Methodology of Additional Mathematics Instruction	Introduction to Linear algebra I, Discrete Mathematics, Knowledge of Plants and Animals, Research Teaching Social Science Research, Algorithms and Data Structures, Mathematics and Talented Students		
4 ECTS	8 ECTS	20 ECTS	22 ECTS	0 ECTS	0 ECTS

Table 10: Elective courses – digital competency.

Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6
Computer Science I, II, and III	Basics of Computer Science, Information Systems, Programming: Logo, Database, E-Learning, Tools for E-Learning I and II, The Use of Computers in Primary School Education I and II, Web Design, Methods of Teaching Computer Science I, Qbasic Programming, Software Packages for Assistance in Learning	Systems for E-Learning, Distance Learning and Teaching, Basics of Programming, Systems for E-Learning, Distance Learning Systems, Intelligent Tutoring Systems, E-Learning Design, Evaluation of E-Learning Systems	Computer Lab, Introduction to Computer Sciences, Web Programming, Teaching Computer Science, Computer Databases, Computer Music Tools, Computers for Holiday and Leisure	Extracurricular IT and Technical Activities	Basics of Computer Science, Computers I and II, Information Systems, Computer Networks, Introduction to Databases, Advanced Use of Computers and the Internet, Programming, Programming Educational Software Packages, Methods of Informatics I and II
12 ECTS	35 ECTS	38 ECTS	20 ECTS	4 ECTS	12 ECTS

Image 3: Share of the teaching load in the total teaching load – elective courses.

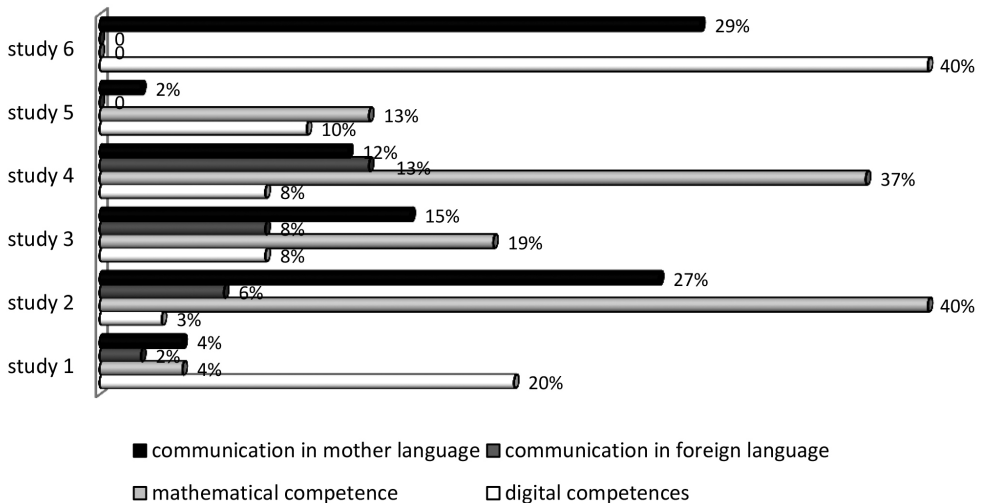


Table 11: Elective courses – teaching workload according to programmes and competencies.

	Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6
Teaching workload (ECTS) for the competency of communication in the mother tongue	45	4	20	13	20	60
Yates $\chi^2= 112,095$, $df = 5$, $p=0.000$						

	Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6
Teaching workload (ECTS) for communication competency in a foreign language	8	52	49	63	24	0
Yates $\chi^2= 148,034$, $df = 5$, $p=0.000$						

	Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6
Teaching workload (ECTS) for mathematical competency and basic competencies in science and technology, teaching workload (ECTS) for communication competency in foreign language	4	8	20	22	0	0
Yates $\chi^2= 45,656$, $df = 5$, $p=0.000$						

	Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6
Teaching workload (ECTS) for digital competency	12	35	38	20	4	44
Yates $\chi^2= 88,364$, $df = 5$, $p=0.000$						

According to the observed competencies, there are statistically significant differences among the teacher studies in Croatia in the possible teaching workload for elective courses, which was expected considering the different foci of the study programmes and the possibility of enrolling in different concentrations within teachers' studies. Within the study, we also observed the orientation of individual studies on some of competency depending on the orientation of the study and directions offered within the study.

According Horvat and Lapat (2012)'s research of fifth-year teachers' studies students and teachers in seven elementary schools in Međimurska Županija, students gauge the adequacy of their experienced colleagues's professional training differently than they do their own. The results were as follows: 25% student respondents agree that teachers are doing enough on their own professional development and 25% did not know how to

properly evaluate this, i.e., 50% of respondents believe that teachers are insufficiently active in the field of professional development. This information is interesting: among students, it is possible to conclude a difference in knowledge of the needs and opportunities of professional development in the teaching profession, as well as in of the same in further professional work. Students in the same beginning stages of teacher training should embody the models of professional development, as well as the need for continuous development of the competencies required for quality work.

CONCLUSION

This analysis of access to teachers' studies programmes in Croatia demonstrates that the screening criteria are different not only in study programmes at different universities, but also at comparable study programmes at institutions of higher education in different locations. Taking into account that all graduates receive the same title regardless of study programme, it would be expected that the screening criteria are the same across the board. The analysis of obligatory courses related to the observed competency revealed that although there was no statistically significant difference in teaching workload (expressed in ECTS credits) in different study programmes, for individual competencies in the same there are significant differences in the number of courses, the course titles, and in the representation of individual competency in these same courses. Since all teachers in Croatia follow the same curriculum derived from curriculum guidelines, the contents of core competencies should be more balanced among the obligatory courses in different degree programmes.

The analysis of elective courses shows a significant difference in possible teaching workload for individual competencies in different programmes of study, because it is through elective courses that study programmes build their identity, uniqueness, and reputation. The analysis of the teaching workload for individual competencies within the obligatory courses reveals an uneven distribution. In all study programmes, communication competency in the native language, mathematical competency, and basic competencies in science and technology much more strongly represented than are digital competency and competency in foreign language communication. This result is expected, because foreign languages are not taught and informatics as a subject is only offered in the upper grades. Since all observed competencies are key competencies for lifelong learning according to the recommendation of European Commission, these competencies should be developed by the end of compulsory education; their presence should be more balanced within the framework of teacher quality studies in order to transfer them to the students.

REFERENCES

- Bijeli dokument o hrvatskom obrazovanju (The Concept of Changes within the Educational System in the Republic of Croatia)*, (2002). Retrieved from <http://www.hrvatska21.hr/obrazovanje%209_10_2002.pdf>.
- Bognar, L. and Matijević, M. (2005). *Didaktika*. Zagreb: Školska knjiga.
- Cindrić, M. (1995). *Profesija učitelj u svijetu i u Hrvatskoj*. Velika Gorica – Zagreb: Persona.
- Delors, J. (1998). *Učenje. blago u nama. izvješće UNESCO-u Međunarodnog povjerenstva za razvoj obrazovanja za 21. stoljeće*. Zagreb: Educa.
- Domović, V., Gehrmann, S., Knežević, Ž., Oreški, P., Petravić, A., Šimović, V. and Vican D. (2013). Perspektive razvoja obrazovanja učitelja i nastavnika u Republici Hrvatskoj. In: V. Domović et al. (ed.), *Europsko obrazovanje učitelja i nastavnika – na putu prema novom obrazovnom cilju* (p. 128 – 159). Zagreb: Školska knjiga.
- European Commission (2005). *Proposal for a RECOMMENDATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Key Competencies for Lifelong Learning*. Retrieved from <http://ec.europa.eu/education/policies/2010/doc/keyrec_en.pdf>.
- European Communities (2007). *Key Competencies for Lifelong Learning – European Reference Framework*. Luxembourg: Office for Official Publications of the European Communities.
- Eurostat (2006). *Recommendation of the European Parliament and the Council of 18 December 2006 on Key Competencies for Lifelong Learning*. Retrieved from <<http://epp.eurostat.ec.europa.eu/>>.
- European Council (2000). *The Lisbon Strategy 2000-2010, An Analysis and Evaluation of the Methods Used and Results*. Retrieved from <http://www.europarl.europa.eu/activities/committees/studies.do?language=EN>.
- Horvat, A. and Lapat, G. (2012). Cjeloživotno obrazovanje učitelja. *Andragoški glasnik*, 16(2), pp. 131-142.
- Marsh, C. J. (1994). *Kurikulum – temeljni pojmovi*. Zagreb: Educa.
- Marsh, C.J. (1994). *Nacionalni okvirni kurikulum za predškolski odgoj i obrazovanje te opće obvezno i srednjoškolsko obrazovanje* (2011). Zagreb: Ministry of Science, Education and Sports, Republic of Croatia.
- Poljak, V. (1991). *Didaktika*. Zagreb: Školska knjiga.
- Smith, M. K. (2000). *Curriculum Theory and Practice. The Encyclopaedia of Informal Education*. Retrieved from <<http://www.infed.org/biblio/b-curric.htm>>.
- Tyler, R. W. (1949). *Basic Principles of Curriculum and Instruction*. Chicago: University of Chicago Press.
- UNESCO (1972). *Learning to Be. The World of Education Today and Tomorrow*. Paris: Unesco.
- UNESCO (2007). *Prema društvima znanja: UNESCO-vo svjetsko izvješće*. Zagreb: Educa.
- Vican, D. (2006). Odgoj i obrazovanje u Hrvatskoj u kontekstu europskih vrijednosti, *Pedagogijska istraživanja*, 3 (1), pp. 9-20.
- Vizek Vidović, V. (2005). *Cjeloživotno obrazovanje učitelja i nastavnika. višestruke perspektive*. Zagreb: Institute for Social Research.
- Žiljak, T. (2005). Politike cjeloživotnog učenja u Europskoj uniji i Hrvatskoj. *Anali Hrvatskog političkog društva*, 1(1), 225-243.