

# 1 Introduction

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The professional development of teachers is essential both for the improvement of the quality and effectiveness of education, as well as encouragement of teachers to commit themselves to their learning, responsibility, identity, and professional satisfaction. We understand the professional development of teachers as a process during which the teacher establishes and maintains the highest levels of professional competencies which he/she is capable of achieving. The idea of the so-called “new professionalism” highlights some of the basic requirements for teaching, such as professional commitment to one’s own learning, professional autonomy, dynamic understanding of learning (the teacher supports co-responsibility for the pupils’ learning outcomes and is an active and reflective “learner”), as well as cooperation and connectedness with the social community. Raising the quality and effectiveness of education depends on the professional development of teachers – and thus pre-service and in-service teacher education – and it requires the development of key transversal competencies for lifelong learning that are based on creativity, innovation, critical thinking, and entrepreneurship.

Research shows that the development of pupils’ achievements depends on the process of learning and teaching. For this reason, it is strongly emphasised that education systems are only as good as their education staff. The quality of the teacher positively affects pupils’ achievements and educational institutions, the atmosphere, management, and financial circumstances. The teacher is the result of his/her “cumulative autobiography” – he/she acts on the basis of his/her constructs, beliefs, understanding of human beings, learning, professional growth, and development. The teaching profession does not have high social status; it has no characteristics that would result in fame, wealth, or power, which mark the essential elements of the professional status in general. However, social status, personal development, and teacher personality are key determinants of teachers’ professional development. Starting from these insights, we researched the professional development of teachers, social status, teacher personality, and transversal competencies for lifelong learning.<sup>1</sup>

Transversal or cross-curricular competencies for lifelong learning are considered crucial for the realisation of social goals (such as “learning to learn”) that are

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<sup>1</sup> Given that the *Introduction* theoretically positions the conducted empirical research and highlights, among other things, the fundamental methodological starting points of the scientific research project, it is identical to the *Introduction* in the Croatian university edition of the scientific monograph.

important to all individuals (Rieckmann, 2012). New tasks, knowledge, roles, and teacher competencies necessarily require teachers' professional development and a change of the "typical classroom image".

Teacher competencies are a complex combination of knowledge, skills, understanding, values, and attitudes focused on quality work throughout the curriculum. This implies the strengthening of their interdisciplinary cooperative skills in modelling and developing pupils' transversal competencies. One of the most important transversal/cross-curricular competencies that a teacher develops through all preschool and elementary school activities is "learning to learn". In this regard, research focuses on identifying motivational factors, activities, and environments that are stimulating for self-regulation of behaviour, learning, and persistence in situations of potential failure. Moreover, in such research teachers reveal the need for further development of competencies that would stimulate and develop self-regulation and persistence in situations of potential failure.

The use of an inclusive education policy has significantly affected the inclusion of pupils with different educational needs, interests, and opportunities into regular, heterogeneous classes. Therefore, special attention is devoted to questions of inclusive education policies and teachers' competencies for inclusive education.

As yet it is unclear to what extent teachers acquire the transversal competencies for lifelong learning during their initial education and continuing professional development, and how the strengthening of these competencies contributes to their professional status.

## 1.1 Problem and research aims

The aforementioned conceptual settings are the theoretical framework for the research on specific transversal competencies for the lifelong learning of teachers in the context of their continuing professional development.

The main purpose of this research was to explore the experiences and attitudes of elementary school classroom teachers and subject teachers in the Republic of Croatia and Republic of Slovenia about professional development and status, as well as their personality and transversal competencies in the fields of self-regulation, inclusion, and sustainable development. Particular attention was given to research on the professional status of teachers in society and their personalities, which significantly determine the framework of teachers' professional development. In this context, the research conducted on a sample of teachers focused on the following specific aims:

1. Examination of the professional development of teachers, the fundamental understanding of professional development, the assessment of the degree of teacher competencies in certain areas of professional activity, the strongest incentives, and the most significant barriers to their professional development.
2. Analysis of the attitudes about teacher status; how teachers assess the reputation of certain professions in society and how the reputation of the teaching profession can be improved.
3. Analysis of the teachers' personality traits, and their relation to self-assessed professional competencies and some socio-demographic variables.
4. Examination of transversal competencies in the areas of self-regulation, work in inclusive groups, and education for sustainable development, including sustainable behaviour.
5. Exploration of the professional development of teachers in the fields of transversal competencies, professional status, and personality in Croatia and Slovenia using comparative analysis.

This scientific monograph does not include the research findings that refer to tasks related to teacher personality and education for sustainable development, because they are not part of the English and Slovenian translation of the monograph. In all parts of this research, we elaborated on the appropriate theoretical approaches to the selected research problems and defined specific research objectives accordingly.

## 1.2 Research methodology

### 1.2.1 Sample

The research was conducted on a stratified, representative sample. Based on the official list of all schools in the Republic of Croatia (from a database with a list of schools obtained from the Croatian Educational and Teacher Training Agency, school year 2014/2015) and the Republic of Slovenia (elementary school list, 2014), approximately 10% of schools from each county were selected using the algorithm for random sampling implemented in the SPSS 22 program. Based on the list of all schools in the Republic of Croatia in the school year 2014/2015 ( $n = 864$ ), 48 elementary schools were randomly selected, which makes up 5.56% of all schools in the country. The Slovenian sample comprised 48 elementary schools selected through random sampling, which makes up 10.67% of all elementary schools in Slovenia for the school year 2014/2015 ( $n = 450$ ). The questionnaires were distributed to all classroom and subject teachers, provided that the school principal had previously agreed to take part in the research. If the principal of the selected school did not give his/her approval, the selected school was replaced with another from the same county.

Replacement schools were selected according to the principle of random number tables. The representation of schools by region is shown in Table 1.1.

*Table 1.1. Representation of schools whose teachers participated in the research*

Representation of schools by region				
Croatia		Slovenia		
County	<i>f</i>	Region	<i>f</i>	
Zagreb County	2	Mura	4	
Krapina-Zagorje County	2	Drava	7	
Sisak-Moslovina County	3	Carinthia	2	
Karlovac County	3	Savinja	5	
Varaždin County	3	Central Sava	1	
Koprivnica-Križevci County	3	Lower Sava	3	
Bjelovar-Bilogora County	2	Southeast Slovenia	5	
Primorje-Gorski Kotar County	4	Central Slovenia	10	
Lika-Senj County	1	Upper Carniola	4	
Virovitica-Podravina County	1	Littoral-Inner Carniola	2	
Požega-Slavonia County	1	Gorizia	3	
Brod-Posavina County	3	Coastal-Karst	2	
Zadar County	1			
Osijek-Baranja County	1			
Šibenik-Knin County	1			
Vukovar-Srijem County	2			
Split-Dalmacija County	4			
Istra County	3			
Dubrovnik-Neretva County	2			
Međimurje County	2			
City of Zagreb	4			

A total of 1,989 teachers (CRO = 1,195, SLO = 794) completed the questionnaires, although some were not filled out correctly (6%) and were therefore excluded from data processing. The final sample, which provided the foundation for statistical data analysis, included 1,867 participants (CRO = 1,103, SLO = 764). The characteristics of the participants are presented in Table 1.2.

Table 1.2. Socio-demographic data of the participants

<b>Respondent characteristics</b>	<b>Croatia (n = 1103)</b>		<b>Slovenia (n = 764)</b>	
	<b>%</b>		<b>%</b>	
<i>Gender</i>				
Female	83.75		89.20	
Male	16.25		10.80	
<i>Workplace</i>				
Classroom teacher	38.99		47.66	
Subject teacher	61.01		52.34	
<i>Trainee</i>				
No	91.57		98.53	
Yes	5.17		1.47	
<i>Employment status</i>				
Full-time employment	87.28		87.50	
Part-time employment	12.72		12.50	
<i>Age</i>	M=41.38, SD=10.53, min=25, max=65		M=43.62, SD=9.39, min=25, max=66	
<i>Years of work experience as a teacher</i>	M=15.93, SD=10.96, min=0, max=44		M=18.94, SD=10.77, min=0, max=40	
<i>Level of education</i>				
<b>Croatia</b>	<b>%</b>	<b>Slovenia</b>	<b>%</b>	
2-year professional studies	21.72	Higher education program completed by 1994; higher education professional program	27.5	
4-year professional studies	8.05	Spec. higher education program, higher vocational program, university program, (first Bologna cycle)	18.3	
4-year university studies	50.84	Spec. higher vocational program, university program, Master's degree (second Bologna cycle)	46.3	
5-year university studies – Master's degree	18.73	Spec. university program, Master of Science	7.9	
Master of science	0.47			
Doctorate	0.19			
<i>Obtained title</i>				
<b>Croatia</b>	<b>%</b>	<b>Slovenia</b>	<b>%</b>	
Without a title	62.84	Without a title	17.28	
Teacher/professor mentor	33.58	Teacher mentor	37.34	
Teacher/professor advisor	3.58	Teacher advisor	41.29	
		Teacher councillor	4.09	

We sent the questionnaires to the selected schools along with envelopes with which the questionnaires were to be returned to ensure the participants' anonymity. A total of 1,867 teachers filled out the questionnaire correctly, of which 1,103 (59.1%) were Croatian and 764 (40.9%) were Slovenian elementary school teachers. Regarding gender, female teachers dominate in both samples: 83.7% in the Croatian sample and 89.2% in the Slovenian one. Subject teachers dominate over classroom teachers in both samples, with 61% subject teachers and 39% classroom teachers in the Croatian sample, and 52.3% subject teachers and 47.7% classroom teachers in the Slovenian sample. For the Croatian sample, 5.17% are teacher-trainees, while in the Slovenian sample they account 1.5% of the participants. Most of the Croatian teachers who answered this question do not have a positional title (62.8%), while 33.6% of them have the title of a mentor and 3.6% of an advisor. Among the Slovenian teachers, 17.3% do not have a positional title, while 37.3% of them are mentors, 41.3% are advisors, and 4.1% are councillors, which is the highest possible professional title in Slovenia. The Slovenian sample, therefore, indicates that significantly more teachers with higher positional titles participated in the research. The majority of teachers in the sample, both in Croatia (87.3%) and in Slovenia (87.5%), are employed full-time.

## 1.2.2 Instruments for data collection

The instrument for collecting empirical data was developed as a structured questionnaire, which for particular research questions included already existing questionnaire items that were translated into Croatian and Slovenian, such as *Self-Regulated Learning Teacher Belief Scale* (Lombaerts, De Backer, Engels, Van Braak, and Athanasou, 2009); and *Teachers' Perceptions of Skills Needed for Teaching Diverse Students* (Avramidis, Bayliss, and Burden, 2000). The questionnaire also included original items such as those in the *Scale of Teachers' Professional Competencies* and the *Reputation Scale*, and the *Scale of Competencies in the Education for Sustainable Development*, which were constructed after a review of the theory and current research on the topic.

The questionnaire contained a total of 33 questions. In addition to the aforementioned assessment scales, Likert-type scales, and basic independent variables (gender, age, years of teaching experience, professional title, etc.), the questionnaire included one item that required ranking the responses as well as several open-ended questions. The construct validity of all applied scales was verified using factor analysis, whereby the scales showed satisfactory measurement characteristics. Instrument reliability was verified using the method of internal

consistency (by calculating the Cronbach's alpha coefficient). All applied scales in the questionnaire had a satisfactory level of reliability. The measurement characteristics of all the applied instruments, as well as the results obtained in the Slovenian and Croatian subsamples, are described in the related chapters of this monograph.

In the continuation of this text, we are going to present the measurement characteristics of the Scale of Teachers' Professional Competencies as well as the results obtained in the Slovenian and the Croatian subsamples given that, in all chapters of the monograph, it was necessary to determine the extent to which teachers' self-assessments of the degree of their professional competencies are related to socio-demographic variables, teacher reputation, the degree of teacher skills for inclusive teaching, and their positive beliefs about the importance of encouraging self-regulation of pupils' learning both in the total sample as well as in the Slovenian and Croatian subsamples.

### 1.2.3 Measurement characteristics of the Scale of Teachers' Professional Competencies

The theoretical approach was applied in the construction of the Scale of Teachers' Professional Competencies, whereby its items were designed based on an examination of the theory and previous research on the basic areas of teachers' professional activity (Marentič Požarnik, Kalin, Šteh, and Valenčič Zuljan, 2005; Peklaj, Kalin, Pečjak, Puklek Levpušček, Valenčič Zuljan, and Ajdišek, 2009; Muršak, Javrh, and Kalin, 2011). The scale contains seven items referring to teachers' competencies to establish partnerships with other schools, institutions, and experts for the purpose of incorporating new insights into their educational work, serving a constructive role in research and development projects, cooperating with parents, analysing positive and negative sides of their educational work, mentoring students in practice and for teacher trainees, and establishing constructive dialogue with their peers. Teachers were asked to assess their competencies on a five-point scale (*1 - not competent, 2 - poorly competent, 3 - partially competent, 4 - well competent, 5 - very well competent*). This was completed correctly by a total of 1,755 teachers, of which 1,010 (57.5%) were Croatian, and 42.5% were Slovenian. The exploratory factor analysis was performed using the main component method to verify the factor structure and the measurement characteristics of the Scale of Teachers' Professional Competencies. The existence of a single factor was determined using the Guttman-Kaiser criteria (characteristic root greater than 1) and the Scree-Test criteria, which explains 49.55% of the total variance. The single-factor structure

was obtained both in the Croatian and Slovenian subsample, with the percentage of variance explained in the Croatian sample being 51.27% and in the Slovenian one 46.82%. Statistical analysis was performed on the linear composite.

#### 1.2.4 Process of data collection

A research survey was conducted between June 2015 and the end of January 2016 on a representative sample of elementary school classroom teachers and subject teachers in the Republic of Croatia and Republic of Slovenia. We sent the questionnaires to the selected schools along with envelopes inside which the questionnaires were to be returned to ensure the participants' anonymity. If teachers had not responded within the agreed time, we contacted them by phone or email and encouraged them to fill out the questionnaire.

### 1.3 Data processing

Data were processed using the SPSS 22.0 program. The processing was performed on a sample of 1,867 teachers who had correctly filled out the questionnaire, and it included descriptive and multivariate analyses and procedures. Comparative data analysis was also performed on all indicators obtained in the Croatian ( $n = 1103$ ) and Slovenian ( $n = 764$ ) subsamples.

In the following chapters of this monograph we will present some of the results of our empirical research, namely the results referring to the verification of the measurement characteristics, the characteristics of all applied scales, the results and their interpretation, descriptive and correlative analyses of teachers' self-assessed competencies for professional performance, as well as the questions on teacher reputation, personality traits, and transversal competencies in the total sample and separately in the subsamples of Croatian and Slovenian teachers.

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