2 Teachers’ professional development: Context, perspectives, and challenges

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2.1 Theoretical starting points

Lifelong education/learning and teachers’ continuing professional development are key issues that lie at the very heart of many studies dealing with the accessibility, mobility, and quality of the education system. These are the main mechanisms that encourage personal and professional growth and development, and prevent stagnation in the life of the individual and society. In this regard, the fundamental question is how to ensure the achievement of educational needs, conditions, and opportunities as the main prerequisites for lifelong learning and teachers’ professional development, as well as how to support the curricular modelling of their education.

The term teachers’ professional development suggests it is a process, not a one-time event or sequence of events. Continuity is an important aspect of professional development that goes beyond the traditional intertwining of elementary and further teacher education. Rudduck (1991, in Marcelo, 2009, p. 7) states that a teacher’s professional development determines his/her ability to maintain curiosity, whereby the teacher starts from his/her interest in the process of learning and teaching. In this process, the teacher seeks a dialogue with experienced colleagues as a source of support in the analysis of individual situations. From this perspective, we might understand the professional development of teachers as a constant questioning and seeking adequate solutions to different situations. Some important definitions of the professional development of teachers are as follows:

- The process of professional development implies adaptation to change by changing the teaching and learning, altering teacher attitudes, and improving the pupils’ learning outcomes. The professional development of teachers is concerned with individual and organisational needs (Heideman, 1990, according to Marcelo, 2009).
- Professional development of teachers is a broad area that includes any activity or process that changes attitudes and improves the understanding or the performing of current or future roles (Fullan, 1990).
- It is defined as an internal process that improves the knowledge or the teacher’s point of view (Sparks and Loucks-Horsley, 1990).
It refers to the working opportunities that stimulate teachers’ creative and reflective skills, thus enabling them to improve their practices (Bredeson, 2002, according to Marcelo, 2009).

It represents the teacher’s professional growth, which he/she acquires as a result of his/her experience and systematic analysis of his/her practice (Villegas-Reimers, 2003, according to Marcelo, 2009).

In addition to the abovementioned definitions, we wish to emphasise two additional complex definitions, which highlight the wider context in which the professional development of teachers takes place, in addition to the important emphasis on the learning process, reflection of one’s own experience, and changing teacher attitudes and actions.

Valenčić Zuljan (2001, p. 131) describes teachers’ professional development as a “process of meaningful and lifelong learning, in which (students) teachers create and develop their understanding and change their teaching practice. It is a process that involves the teacher’s personal, professional, and social dimension and signifies his/her progress in the direction of critical, independent, and responsible decision making and action.”

The definition also highlights a change in the understanding and concrete action – acquiring and enhancing professional skills. Valenčič-Zuljan (2001, p. 134) defines the teachers’ professional development as a “personal and implicit construct that is shaped in the personal history of the individual as a sort of sediment of all his experiences, impressions, and insights regarding the phenomenon of perception, and it plays the role of a compass in the individual’s life, which is expressed in qualitatively different ways from the individual’s understanding, interpretation, and performance.” In their research on the individual process of change, many authors highlight teachers’ prejudices and beliefs. For this reason, significant emphasis is placed on analysing teacher beliefs when entering the education process throughout teacher education. Beliefs influence the learning process and the process of change in which they participate (Richardson, 1996 in Marcelo, 2009). A review of available research on learning and teaching reveals three categories of experiences that influence teacher beliefs and knowledge: personal experience (worldview, self-respect, how they treat others, views on the relationship between the individual and the school, views on the family and culture in general), experience based on formal knowledge (subject knowledge, attitude towards the learning content and teaching methods), and school and classroom experience (all experiences that have formed the idea of what it means to teach and what a teacher’s work includes). One of the most important insights into the teachers’ professional development...
is that teacher beliefs directly influence the interpretation and importance which they attribute to their teaching experience. Many authors see this as the reason why numerous professional development programs have no real impact on changes in teaching practices, and even less impact on pupils’ learning. Therefore, it is very important to understand how teachers progress professionally and which conditions contribute to their growth/progress and encourage it.

Day (1999, p. 4) provides a holistic view of teachers’ continuing professional development, which has a complex, dynamic, and professional nature: “Professional development consists of all natural learning experiences and those conscious and planned activities which are intended to be of direct or indirect benefit to the individual, group or school, which contribute, through these, to the quality of education in the classroom. It is the process by which, alone and with others, teachers review, renew and extend their commitment as change agents to the moral purpose of teaching; and by which they acquire and develop critically the knowledge, skills and emotional intelligence essential to good professional thinking, planning and practice with children, young people and colleagues throughout each phase of their teaching lives.”

In the last few years, researchers have recognised professional development as an inclusive concept that involves all formal and nonformal activities undertaken for the purpose of the teacher’s learning and professional growth (Marcelo, 1994; Flores, Rajala, Veiga Simao, Tornberg, Petrović, and Jerković, 2007; Corcoran, 2007; Fullan, 1995; Hargreaves and Fullan, 2012).

The many different definitions thus highlight the process as the foundation of professional development, which can be either individual or group (or an intertwined version of both processes). It is contextually connected to the teacher’s workplace – school – and it contributes to the development of professional competencies based on a variety of formal or nonformal experiences.

Newer definitions emphasise, for the most part, professional development as a long-term process that involves various forms of systematically planned opportunities and gained experiences that stimulate professional growth and teacher development. This view highlights some of the perspectives from which new interpretations and fundamental features of professional development emerge (Marcelo, 2009; Ball and Cohen, 1999; Feiman-Nemser, 2001; Putnam and Borko, 2000):

• It is based on the constructivist concept of learning in which the teacher is an active subject who learns through direct involvement in teaching tasks, but also through evaluation, monitoring, and reflection about his/her own teaching.
• It is a long-term process that implies that teachers learn in different periods. Moreover, the experience is more effective if it allows teachers to connect new experiences with prior knowledge; it is, therefore, necessary to enable proper monitoring as well as occasional demands for change.

• It is a process that takes place in a specific context; the most efficient experiences for the teachers’ professional development are those that are based on concrete school situations and relate to day-to-day teaching activities.

• Teachers’ professional development is linked to the changing of the school, i.e., transformations of school culture in which the teachers participate as professionals.

• The teacher is seen as a reflective practitioner who has certain pre-knowledge when he/she begins working, and constantly acquires new knowledge through self-reflection on his/her own experience; professional development includes activities that encourage teachers to formulate new theoretical knowledge and new pedagogical practices.

• Professional development is a collaborative process, though it also presupposes and enables individual work and reflection.

• It can take place in various forms and in different contexts; there is not only one model of professional development that would be effective and applicable to all schools; schools and teachers need to analyse their needs, beliefs, and practices so that they can decide which model of professional development is more appropriate for them.

Professional development is always significantly more than a behavioural change. Teacher development is a process during which the teacher establishes and maintains the highest level of professional competencies he/she is able to achieve (Terhart, 1997, p. 1). It is true that teacher development can be encouraged and supported “from the outside”, but we cannot achieve it in a technological way. It is an internal process not all teachers are aware of. The awareness of one’s own professional development (continuing development, stagnation, regression) is one of the important conditions for the further development of professional competencies.

It is very important for professional development not to be limited to the development of skills if the aim is to achieve good performance overall. This is not a mere accumulation of knowledge and experience, but also a process of maturation within personal development, which means that the teacher becomes a reflective practitioner characterised by flexibility, the ability to distinguish feelings, respect for individuality, tolerance of conflicts and ambiguities, fostering mutual relationships, and a broad social perspective (Witherell and Erickson, 1978 in Zuzovsky, 1990, p. 4).
This is a process of personal change and growth, not just behavioural changes. Development should lead to “higher,”“better,”“more complete” degrees of professionalism and personal competencies (Terhart, 1997).

Every teacher in the process of his professional development goes through certain periods, each of which has its own specific role, characteristics, and consequences. Teacher development takes place within the teacher. Since it is a process of learning, and complex learning at that, the teacher should treat personal learning in a way that he/she shapes it for him/herself as an individual. Of course, there is always some resistance to learning and change, especially to personal and professional change.

We can and should start fostering and encouraging teachers’ professional development from the outside; however, we must be aware that it is essentially a process of the self-development of each individual in different areas. Quality teaching places teaching expertise at the very centre of teaching competencies, but these must not be limited to teaching alone. In a broader sense, these competencies include social and socio-moral competencies, the ability to diagnose and counsel, to collaborate with colleagues, parents, and school leadership so as to develop the professional culture of schools. Finally, it includes the ability to observe oneself as a teacher. As such, the literature (e.g. Edwards, 2009; Leavy, McSorley and Boté, 2007; Richardson, 1990; Wood and Bennett, 2000) highlights that teachers are able to change/transform their practice only if they also question and change their own theories and notions about teaching and learning.

The literature on teachers’ professional development sets out from various methodological, structural, and philosophical perspectives/approaches to teacher training and development, as well as the role of teachers in the process of development (Čepić, Tatalović Vorkapić, Lončarić, Andić, and Skočić Mihić, 2015; Day, 1999; Day, 2013; Eraut, 1993; Hargreaves, 1994; Krolak-Schwerdt, Glock, and Böhmer, 2014; Vizek Vidović and Velkovski, 2013). For example, Čepić et al. (2015) offered a theoretical framework of complex relationships among teacher reputation, personality, and transversal competencies within contemporary educational contexts. Approaches to studying the professional development of teachers depend on the position of experts who deal with this topic. Specifically, Zeichner (1983, in Creemers, Kyriakides, and Antoniou, 2013, p. 4) was the first to identify and describe four representative (typical, essential) paradigms in the education and professional development of teachers. Zeichner defines a paradigm as “a matrix of beliefs and assumptions about the nature and purposes of schooling, teaching, teachers, and their education that gives shape to specific
forms of practice in teacher education’ (Creemers, Kyriakides, and Antoniou, 2013, p. 4). The four paradigms he identifies are:

- **Traditional craft paradigm**, an apprenticeship model that focuses on the accumulation of wisdom and gaining experience in teaching, which involves methods of trial and error.
- **Expanding the repertoire paradigm**, as Sprinthall, Reiman and Thies-Sprinthall call it (1996, in Creemers et al. 2013, p. 4), focuses less on highly explicit and discrete instructional strategies and teaching skills, and more on the acquisition of comprehensive instructional models, such as the knowledge transmitter model, inductive inquiry, and interpersonal approaches to learning.
- **Competency-based paradigm**, also known as the expert paradigm, prevails in teacher education. It is based on a technical production metaphor and positivist epistemology, and focuses on the mastery of key knowledge and teaching skills, as identified by expert academics and university researchers.
- **Inquiry-oriented paradigm**, also known as the holistic or reflective paradigm, appears primarily as a metaphor of liberation. It emphasises the development of teachers’ capacity for reflective action through an examination of the moral and political implications of their teaching.

Contemporary views on professional development are characterised by seeing professional learning not as a short-term activity but as a long-term process, extending from teacher education studies to in-service training (Ball and Cohen, 1999; Feiman-Nemser, 2001; Putnam and Borko, 2000; etc.). Although recent reforms support the concept of lifelong learning, there is insufficient knowledge about teacher learning opportunities or how forms of activity change during a teacher’s career (Corcoran, 2007). Empirical research on teacher participation in professional development has identified age-related differences (e.g., Desimone, Smith and Ueno, 2006; Desimone, 2009; Mok and Kwon, 1999), but outside the context of teachers’ career development. For example, Richter, Kunter, Klusmann, Lüdtke, and Baumert (2014, p. 97-121) explored the participation of teachers in formal and nonformal forms of professional learning/development, taking thereby into account the content of the learning, and they concluded, among other things, that older teachers are less involved in professional development and training.

The literature suggests that a teacher’s career can be divided into consecutive phases marked by different intensities of motivation to participate in professional development (Huberman, 1989). Huberman was among the first to point out that the teachers’ professional development does not take place according to a clearly defined scheme, but that there are fluctuations in the progress within each career.
period and different paths of development depending on the interaction of internal and external factors for each individual (Vizek Vidović, 2011, p. 42). The Huberman model, which emerged as the result of extensive qualitative research, describes development as a set of five consecutive phases (i.e., survival or discovery, stabilisation, experimentation/activism and stock-taking/interrogations, serenity and conservatism, and disengagement), which are closely related to the individual teaching experience. These phases represent the main stages of teacher development, but they do not have to refer to each teacher or occur in the same way.

Recent research on the professional development of teachers clearly indicates that a readiness to engage in lifelong learning is largely dependent on one’s initial preparation for the occupation and the support received during the first years of teaching (Javrh, 2008; Vizek Vidović, 2011, p. 62). While there is a lack of empirical findings, the available results of recent research indicate that novice teachers tend to rely on observation and informal discussion with colleagues to enhance their practice, while experienced teachers turn to formal meetings for their professional learning (e.g., Grangeat and Gray, 2007). In other words, as highlighted by Richter, Kunter, Klusmann, Lüdtke, and Baumert (2014), teachers seem to seize different learning opportunities during their career, but empirical studies have not systematically explored how teachers of different age groups utilise opportunities for professional development.

According to Vizek Vidović (2011), approaches to studying the professional development of teachers can be divided into three groups: (1) research in which prototype phases or degrees of career development in teaching and their characteristics are identified; (2) research that analyses the internal and external factors of teachers’ professional development that contribute to the formation of professional identity; and (3) research focused on effective approaches to learning and teaching in individual phases of the teachers’ professional development. Based on the above-mentioned classification by Vizek Vidović (2011, p. 39-95), the three approaches are described in slightly more detail below.

The first approach relates to research that seeks to identify prototype stages or degrees of teacher career development and their characteristics, based on which models of professional development are shaped, such as, e.g., Huberman’s career development model and Berliner’s model of expertise development (Huberman, 1993; Berliner, 2001; Bayer, Brinkkjær, Plauborg, and Rolls, 2009; Day, Sammons, Stobart, Kingston, and Gu, 2007). For example, unlike the Huberman model, which is based on observing the development of teacher autonomy and involvement in a professional community, Berliner’s model is based on monitoring the changes
in teacher competencies, which are observed on a continuum starting from the novice level to that of expertise. Day et al. (2007) applied a “synergy approach” to the analysis of the variations of teacher motivational-emotional and competency features through six degrees of professional development. Qualitative longitudinal research on teachers throughout their careers and comparative studies of novice teachers’ and expert teachers’ behaviours are the main methodological approaches in this area (Vizek Vidović, 2011, p. 39).

Internal and external factors of professional development of teachers are analysed within the second approach. Experts in the field of education have recently been increasingly occupied with the question of providing the conditions and availability that would allow teachers to freely engage in the education process and continuing professional development. There is significant interest by scholars in different organisational variables of the school, which includes the concept of the school atmosphere or the school climate and culture, as part of exploring the factors needed to achieve greater school effectiveness. These issues are linked to ensuring the quality of this process and the measures through which it can be realised. Most authors in this area believe that the professional development of teachers should be considered in the light of social-constructivist theory as a result of the individual’s self-activity, which is influenced by personal and professional environmental factors. Constructivism and self-regulation of the learning process emphasise the responsibility of individuals for their own learning processes (Boekaerts, 1999, 2002). Different terms are used to describe new ideas, such as constructivism and self-regulated learning, but what they have in common are the same specific characteristics of learning (De Corte, 1996). Numerous conditions can stimulate or prevent the professional development of teachers. Among the most important ones are a vision and mission that are clear and accessible to most employees in educational institutions, a cooperative culture, a structure characterised by open and inclusive decision-making processes, a systematic strategy for determining the goals of educational institutions, as well as policies and resources that support professional development (Čepić, 2009; Čepić and Krstović, 2011).

The third approach relates to research aimed at effective approaches to learning and teaching in individual phases of teachers’ professional development, i.e., at identifying those forms of learning that are inherent to the process of acquiring teacher competencies and appropriate forms of support that are important for each phase in the process (Day et al., 2007; Hattie, 2012; Creemers and Kyriakides, 2012; Creemers, Kyriakides and Sammons, 2010; Čepić, Tatalović Vorkapić and Svetić, 2014; and others). Over the last few years, the demand for an improved
quality of teaching and learning, increased accountability, and higher academic standards have become one of the burning topics of interest among scholars and policy-makers. The underlying research questions in this approach are what kind of approaches to learning and teaching are most fruitful to the achievement of teacher competencies in particular phases of professional development, and what kind of teacher training programs should be offered to improve teachers’ efficacy.

Bearing in mind the previously discussed approaches to studying the professional development of teachers, let us consider how Creemers, Kyriakides, and Antoniou (2013) and Grimmett (2014) have approached this issue.

Creemers et al. (2013) provide a comprehensive and critical review of two dominant approaches to the professional development of teachers, competency-based and holistic, and they reveal that there are both advantages and disadvantages to these. Before summarising how these authors tackle this issue, we should emphasise a few key features of the two approaches. The competency-based approach has had an important impact on teacher education and development, and it is currently being used in many countries (Christie and O’Brien, 2005). This is based on standards that refer to the competencies expected in different phases of a teacher’s career, and they provide a framework for developing a professional development program. For example, in the manual of the Croatian National Center for External Evaluation of Education titled “Monitoring and Evaluating the Professional Development of Teachers - Competitive Approach/Foundation for a Licensing Model” (2014), authors Vizek Vidović, Domović, and Marušić emphasise that the national qualification standard for teachers is a systematic requirement to ensure the acquisition and development of competencies through a licensing and re-licensing system.

On the other hand, the holistic or reflective practice now prevails in the approaches used to the education and professional development of teachers (Golby and Viant, 2007). Schön’s works, Reflective Practitioner (1983) and Educating the Reflective Practitioner (1987), have had a significant impact on the main ideas of educational experts on reflection. This approach relates to different practices: from reflection as an integral part of the skills and means to foster effective teaching, to reflection as an enhancement of the individual’s awareness of social justice in educational practice. This holistic approach is also described as a reaction to the governing public policies on the training and professional development of teachers, which view the teacher as a technician – a view which the competency-based approach promotes.

Creemers et al. (2013) warn that the discussion should not be limited to this classical content-related dichotomy, and that an integrated approach to professional teacher
education should be developed, which would be aimed at an improved way of grouping factors that are connected to teachers’ behaviour inside the classroom. For this purpose, these authors find it necessary not only to stimulate reflection and understanding of the practice, but also to consider teachers’ efficacy. Adding to the previous discussion of the dominant approaches to professional development research, they argue that these two approaches can be integrated into a dynamic approach, which would help overcome their main weaknesses. Without taking both approaches into account, the emphasis on education or professional improvement of teachers can hardly yield good results. From this dynamic perspective, the use of verified theoretical models of teacher efficacy is essential if teachers are to be helped in their gradual direction from simple towards more specific competencies (Creemers et al., 2013, p.10). Meijer, Korthagen, and Vasalos (2009) also emphasise that the contrast between the two approaches is unnecessary, and that it would make sense to combine the advantages of both approaches in promoting professional development. The critical issue is, therefore, how we can encourage the development of the necessary competencies within teacher education, based on who teachers are, and what continues to inspire them in their work.

However, many researchers in the field of professional development are critical of the eclectic approach that is often reflected in the field of teacher education, precisely by combining elements of the two dominant traditions in different ways (e.g., Donmoyer, 1996). More specifically, although these traditions are generally considered useful in the analysis of the implications for teacher education and teaching, researchers also warn of their unequal, interwoven, and contradictory nature. According to Grimmett (2014), current global research is focused on what experts learn by participating in professional development activities, but they thus neglect the difficulties which teachers face during the transfer of what they have learned into practical application. By applying a cultural-historical theory as a methodological and analytical framework for understanding the institutional practice of professional development, Grimmett (2014) reveals a system of essential relationships needed to ensure the conditions in which teachers can develop unique concepts that can be consciously used in the planning, implementation, and reflective evaluation of new imaginative ways of acting, not only to change their classroom practice, but also to ultimately contribute to the development of their students, families, schools, and colleagues, as well as a broader professional education. Professional development does not take place in a vacuum, and it is essential that it incorporates other elements in a broader context (such as professional identity, environmental features, social circumstances of development, and motivation to engage...
in professional development), which may also have an impact on the institutional practice of professional development. Traditional professional development, as Grimmett points out (2014, p. 163-164), takes place outside the classroom practice of teachers instead of inside the practice of professional development with teachers in their practice.

As can be seen from the previously discussed approaches, the authors emphasise numerous features of professional development, depending on the perspective from which they approach its analysis. To obtain a more valid and complete picture of educational needs, it would be useful to combine different approaches to the research on teachers' professional development, thereby taking into account the specificities of the focal problem.

### 2.2 Purpose of empirical research

As part of the study on the professional development of teachers, we wanted to determine how teachers assess their level of competencies for professional performance in the core areas of their performance. We were, therefore, interested in how they assess their competencies to introduce new insights into their educational work and to reflect on their own pedagogical practices of establishing constructive dialogue with their colleagues, mentoring trainee-teachers and pre-service students, for constructive participation in research and education projects, establishment of partnerships with other schools, institutions, and various experts as well as cooperation with parents. Concerning this, we were also interested to know if they differ in their assessments of competencies with regard to years of teaching experience, and whether there are differences in the results between Croatian and Slovenian teachers.

### 2.3 Method

We applied the descriptive and causal non-experimental method. In the process of double sampling, we randomly selected a number of elementary schools from each region in Croatia and Slovenia (based on the total number of schools in the region), and then we tried to include in the sample all teachers from the selected schools.

We attempted to establish how teachers assess their competencies in different areas of professional activity, and for this purpose we formulated seven statements that form the Scale of Competencies. The theoretical approach was applied in the construction of the Scale of Teachers' Professional Competencies, in the way that the items were designed based on the 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). Teachers were asked to evaluate their competencies for each item on a five-point Likert-type scale (1 – not competent, 2 – poorly competent, 3 – somewhat competent, 4 – quite competent, 5 – very competent). A total of 1,755 teachers answered these questions, of which 1,010 (57.5%) were Croatian and 745 (42.5%) were Slovenian teachers. We performed an exploratory factor analysis using the main component method to verify the factor structure and measurement characteristics of the Scale of Teachers’ Professional Competencies. Based on the Guttman–Kaiser criterion (characteristic root is greater than 1) and the Scree-Test criterion, we determined the existence of a single factor that explains 49.55% of the total variance. The single-factor structure was obtained on both the Croatian and Slovenian subsamples, whereby the percentage of the explained variance in the Croatian sample is 51.27% and 46.82% in the Slovenian sample. Table 2.1 shows the factor saturation and communalities, eigenvalues, and percentage of variance explained for the factor analyses performed on the total sample, and then separately in the Croatian and Slovenian subsamples.

Table 2.1. Results of the factor analysis of the Scale of Teachers’ Professional Competencies

<table>
<thead>
<tr>
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<th>Total</th>
<th>CRO</th>
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<tr>
<td>Factor saturations</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Establishing partnerships with other schools, institutions, and different experts.</td>
<td>0.77</td>
<td>0.59</td>
<td>0.72</td>
</tr>
<tr>
<td>Thoughtful inclusion of new knowledge into one's educational work.</td>
<td>0.76</td>
<td>0.58</td>
<td>0.73</td>
</tr>
<tr>
<td>Constructive engagement in research and development projects.</td>
<td>0.75</td>
<td>0.57</td>
<td>0.74</td>
</tr>
<tr>
<td>Cooperation with parents.</td>
<td>0.69</td>
<td>0.47</td>
<td>0.67</td>
</tr>
<tr>
<td>Analysis of the strengths and weaknesses of one’s educational work.</td>
<td>0.68</td>
<td>0.46</td>
<td>0.64</td>
</tr>
<tr>
<td>Mentoring pre-service students and teacher-trainees.</td>
<td>0.65</td>
<td>0.42</td>
<td>0.67</td>
</tr>
<tr>
<td>Establishing a constructive dialogue with colleagues.</td>
<td>0.62</td>
<td>0.39</td>
<td>0.61</td>
</tr>
<tr>
<td>Eigenvalues</td>
<td>3.47</td>
<td>3.59</td>
<td>3.28</td>
</tr>
<tr>
<td>% variance explained</td>
<td>49.55</td>
<td>51.27</td>
<td>46.82</td>
</tr>
</tbody>
</table>
It is evident from Table 2.1 that the obtained factors are saturated with items related to teachers’ competencies to establish partnerships with other schools, institutions, and different experts, thoughtful inclusion of new knowledge into their educational work, constructive engagement in research and development projects, cooperation with parents, analysis of the strengths and weaknesses of their educational work, mentoring pre-service students and trainee-teachers, and establishing constructive dialogue with their colleagues. The results allow a calculation of the linear composite of the scale, i.e., the total mean value of all items on the Scale of Teachers’ Professional Competencies. The internal consistency reliability coefficient indicates high reliability of the scale both in the total sample (Cronbach \( \alpha = 0.82 \)) and in the subsamples of Croatian (Cronbach \( \alpha = 0.83 \)) and Slovenian teachers (Cronbach \( \alpha = 0.80 \)).

2.4 Results and discussion

2.4.1 Teachers’ professional competencies

The results indicate that teachers assess themselves on average as quite competent (M = 3.85, SD = 0.56, n = 1,755) on the Scale of Teachers’ Professional Competencies. We were interested to know whether there are statistically significant differences in assessments of individual competencies between Croatian and Slovenian teachers. The results of the t-test conducted for independent samples point to a significant difference (p<0.05) in the self-evaluated degree of professional competencies between Croatian and Slovenian teachers, whereby Croatian teachers assess themselves as slightly more competent than Slovenian ones.

Table 2.2. Descriptive data of the Scale of Teachers’ Professional Competencies for the total, Croatian, and Slovenian samples and the differences between the latter two

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
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<tbody>
<tr>
<td>n</td>
<td>1755</td>
<td>1010</td>
<td>745</td>
</tr>
<tr>
<td>Min</td>
<td>1.71</td>
<td>1.71</td>
<td>2.00</td>
</tr>
<tr>
<td>Max</td>
<td>5.00</td>
<td>5.00</td>
<td>5.00</td>
</tr>
<tr>
<td>M</td>
<td>3.85</td>
<td>3.88</td>
<td>3.82</td>
</tr>
<tr>
<td>SD</td>
<td>0.56</td>
<td>0.59</td>
<td>0.51</td>
</tr>
<tr>
<td>( \alpha )</td>
<td>0.82</td>
<td>0.83</td>
<td>0.80</td>
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</tbody>
</table>

* p<0.05

Furthermore, we were interested in the teachers’ self-assessments of their competencies for each statement, as shown in Table 2.3.
Table 2.3. Descriptive data for individual items of the Scale of Teachers’ Professional Competencies and the differences between Croatia and Slovenia

<table>
<thead>
<tr>
<th>Item</th>
<th>Total</th>
<th>CRO</th>
<th>SLO</th>
<th>t</th>
<th>df</th>
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<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Analysis of the strengths and weaknesses of one’s educational work.</td>
<td>1852</td>
<td>3.96</td>
<td>0.64</td>
<td>1093</td>
<td>4.01</td>
<td>0.67</td>
</tr>
<tr>
<td>Establishing a constructive dialogue with colleagues.</td>
<td>1854</td>
<td>4.19</td>
<td>0.63</td>
<td>1093</td>
<td>4.23</td>
<td>0.63</td>
</tr>
<tr>
<td>Mentoring pre-service students and teacher-trainees.</td>
<td>1828</td>
<td>3.58</td>
<td>1.09</td>
<td>1072</td>
<td>3.56</td>
<td>1.13</td>
</tr>
<tr>
<td>Thoughtful inclusion of new knowledge into one’s educational work.</td>
<td>1842</td>
<td>4.01</td>
<td>0.68</td>
<td>1083</td>
<td>4.01</td>
<td>0.71</td>
</tr>
<tr>
<td>Constructive engagement in research and development projects.</td>
<td>1844</td>
<td>3.49</td>
<td>0.86</td>
<td>1085</td>
<td>3.49</td>
<td>0.91</td>
</tr>
<tr>
<td>Establishing partnerships with other schools, institutions, and different experts.</td>
<td>1839</td>
<td>3.50</td>
<td>0.90</td>
<td>1080</td>
<td>3.54</td>
<td>0.93</td>
</tr>
<tr>
<td>Cooperation with parents.</td>
<td>1821</td>
<td>4.23</td>
<td>0.72</td>
<td>1064</td>
<td>4.26</td>
<td>0.75</td>
</tr>
</tbody>
</table>

* p<0.05  
** p<0.001
We established that both Croatian and Slovenian teachers assess their competencies in all researched fields of activity, on average, as quite high. The question thuds arises as to whether the teachers were realistic while assessing their competencies and are genuinely, on average, quite competent to work in all seven areas, or if perhaps they attempted to provide desirable answers to present a better picture of their abilities. Statistically significant differences between Croatian and Slovenian teachers were determined in the competencies to engage in constructive dialogue with their colleagues (M = 4.23: M = 4.12), analysis of the pros and cons in their educational work (M = 4.01: M = 3.88), and establishment of partnerships with other schools, institutions, and experts (M = 3.54: M = 3.45). We may also wonder whether the Slovenian teachers were a bit more critical in the assessment of their own competencies. On average, the Slovenian teachers assess the lowest their competency to establish partnerships with other schools and institutions, i.e., interconnectedness and cooperation with the broader community. In Slovenia, during the fall of 2014, a quantitative and qualitative empirical study on collaboration between elementary schools and various community partners was carried out in over half of all such schools in the country (n = 245, 54%) (Gregorčič Mrvar, Kalin, Mažgon, Muršak, and Šteh, 2016; Šteh, Kalin, and Gregorčič Mrvar, 2015). Different degrees of cooperation can be noticed in the assessments of the collaboration between the schools, both smaller and larger, and the community, and it is not uncommon for such collaboration to be more or less present in all areas we researched at the local community level, as well as at the broader social and international level. Based on the examples of good practice provided by the school principals, we found that they rarely succeed in establishing partnerships in accordance with the fundamental characteristics, which is in line with what, for example, Sheridan, Napolitano, and Swearer (2002) and Epstein (1995) highlighted. It should be emphasised, however, that some do succeed at this in quite different ways. Amongst the barriers to achieving cooperation between schools and communities, the principals especially point out the lack of time, overburdened school staff and individuals from the community, and the lack of adequate financial, spatial, and material resources. Significant barriers are also attributed to the lack of school staff and community institutions that would take part in such cooperation. This is a common problem, and too much organisational work is needed for mutual collaboration. It is thus possible that teachers do not devote as much effort to this area of their professional work as they would like, and thus feel less competent than in other aspects of their work.
In addition to the aforementioned area, both Croatian and Slovenian teachers reported the lowest average degree of competencies in the area of constructive work in research and development projects, as well as in the mentoring of pre-service students and teacher-trainees. Indeed, not all teachers are competent to be mentors or take over that role. It is also possible that some teachers do not appreciate the extent to which cooperation on various research and development projects and establishing collaboration with the broader community are among their key tasks.

Furthermore, we were interested in whether teachers differ in how they evaluate their competencies with regard to the years of teaching experience. With this in mind, we first grouped teachers into five categories according to the teacher career development based on the Huberman model and S-model, which takes into account Slovenian specificities (Javrh, 2006; Javrh, 2008; Javrh and Jamšek, 2008). Both models assume that the career development of teachers comprises several major periods (early career period, when the teacher enters the profession; middle career period, when he/she goes through several important phases and finds stability; and mature career period, when he/she slowly begins to unburden and retires) and that there are “harmonious” and “problematic” ways of developing a teaching career (Javrh, 2008). However, while there are some differences between the Swiss and Slovenian studies, both models assume the following phases (Javrh, 2006; Javrh, 2008; Javrh and Jamšek, 2008):

1. Entrance into the teaching process (up to three years of teaching experience), which includes survival and discovery: teachers try out different roles within the profession. They struggle for survival, are excessively preoccupied with themselves and the feeling of inadequacy, as well as with a big difference between the job’s requirements and their abilities to achieve them in the classroom. On the other hand, they are overwhelmed by a sense of pride in belonging to a professional team, and the feeling that teaching is the right calling for them and they are full of enthusiasm. In the case of Slovenian teachers, this phase ends rather quickly, and the stage of stabilisation begins.

2. Stabilisation in the occupation (between four and six years of teaching experience): Huberman (1993, according to Javrh, 2008) emphasises that career stabilisation means that a teacher has become a teacher in his/her own eyes and those of others, but it also implies stabilisation in teaching – the teacher feels relieved, more satisfied, and is becoming more competent. Javrh (2008) reveals that Slovenian teachers are required to develop full autonomy when entering the occupation (many do not receive the right kind of support from...
the principal and mentor) and the sooner they overcome the initial shock, the
sooner they develop a sense of self-confidence and sovereignty. This has both
its pros and cons. Some teachers hold a distinctly individualistic position and
do not create a close relationship with their colleagues. There is also a group
of teachers who already in this period begin to open themselves up to their
environment, and are trying to share their experience with their colleagues
within the occupation.

3. Professional activity and experimentation or unwanted slipping into uncer-
tainty (between seven and 18 years of teaching experience): various paths
appear in the middle career period – in the direction of professional growth
or growing doubts, dissatisfaction, and the fear of routine. Most important are
three aspects of professional growth: a classroom teacher sovereignly tries out
different approaches, is aware of institutional barriers and therefore attempts
to initiate change, seeks challenges, and wants to be involved in more wide-
ranging projects. Support factors include teamwork among colleagues and
continuing professional education with the aim of overcoming difficulties. It
may be that the teacher goes through a traumatic experience, which ends up
leading him/her to isolation and uncertainty. The specificity of the S-model
is that some teachers in this period already verbalise pronounced accounts of
burnout, especially those who had overburdened themselves with a number of
difficult tasks.

4. The teacher achieves serenity or feels an ever-growing powerless (between 19
and 30 years of teaching experience). The first part of the late career begins
between the ages of 43 and 54, and Huberman (1993 in Javrh, 2008) diffe-
rentiates between two possible paths – serenity and conservatism. On the one
hand, Huberman describes an optimistic teacher who accepts him/herself the
way he/she is and no longer feels the need to prove him/herself, is less en-
gaged, and reshapes and reduces certain goals into more achievable ones. On
the other hand, he describes teachers who move away from insecurity towards
bitterness or even conservatism – they are sceptical of innovations and re-
forms and try to hold onto what they have already acquired, which is followed
by bitter withdrawal. The S-model thereby moves away from the original mo-
del in multiple respects. Those teachers who are moving in an unfavourable
direction of development are characterised more by resignation, breakdown
or burnout than conservatism, which Huberman mentions. For this reason,
Javrh (2008) calls this the phase of powerlessness. A new group is also being
formed among Slovenian teachers – those who continue to pursue their pro-
fessional activities differently – in the direction of critical responsibility.
5. Disengaged or bitter gradual burnout (between 31 and 40 years of teaching experience): both optimistic and bitter teachers begin to descend into the background and no longer assume more complex tasks, burdens, and responsibilities. However, optimistic teachers remain “professional to the end” and maintain their energy for quality work, while bitter teachers become critical, pessimistic, and, above all, tired and exhausted. The specificity of the S-model is that some relaxed teachers remain quite engaged, maintain “live” contact with their pupils, and continue to experiment.

While grouping teachers concerning the years of teaching experience we assumed we would start from the phases envisaged in the models described above, whereby we predicted that the position of Croatian and Slovenian elementary school teachers, in spite of certain differences, would be similar in both school systems. Furthermore, due to the small representation of the final two categories, we merged the group of novice teachers with those who have been teaching between four and six years, and we combined the teachers who have been teaching for more than 31 years with those with 19 to 30 years of teaching experience. It was revealed in the S-model (Javrh, 2008) that many teachers complete the first phase of entrance into teaching rather quickly, and transition into the phase of stabilisation in which they have to immediately develop independent performance, which justifies the merger of the first two phases. In the last two phases, the positive direction of development grows into relaxed disengagement, while the negative direction grows into bitter disengagement.

Following this, we divided the participants into three groups with regard to the years of work experience: a) up to six years, b) between seven and 18 years, and c) 19 years and above. A total of 244 (69.9%) Croatian and 105 (30.1%) Slovenian teachers with up to six years of work experience, 391 (58.4%) Croatian and 278 (41.6%) Slovenian teachers with between seven and 18 years of work experience, and 359 (50.8%) Croatian and 347 (49.2%) Slovenian teachers with more than 19 years of work experience assessed their competencies.

Differences in teachers’ professional competencies in the total sample and subsamples of Croatian and Slovenian teachers, and in relation to the years of work experience, were examined using analysis of the variance, and the results are shown in Table 2.4. Since the condition of the variance homogeneity was not satisfied in the total sample, which was verified using Levene’s test, the table shows the results of the Welch test and the Games–Howell Post-Hoc test. The results indicate that there is a significant difference in the self-assessed degree of professional competencies concerning the years of work experience both in the total sample and in the subsamples,
whereby teachers with 19 and above years of work experience consider themselves to be the most competent. Teachers between seven and 18 years of work experience consider themselves somewhat less competent, while teachers with up to six years of work experience consider themselves to be the least competent.

Table 2.4. Differences in teachers’ professional competencies with regard to the years of work experience

<table>
<thead>
<tr>
<th>Self-evaluation of the degree of professional competencies</th>
<th>TOTAL</th>
<th>CROATIA</th>
<th>SLOVENIA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M (SD)</td>
<td>F(2,885)(η²)</td>
</tr>
<tr>
<td>1) up to 6 years</td>
<td>349</td>
<td>3.65 (0.61)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F(2,885) = 33.12*** &amp; 14.32**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) 7 to 18 years</td>
<td>669</td>
<td>3.85 (0.54)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F(2,885) = 3.12*** &amp; 12.50**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) 19 and more years</td>
<td>706</td>
<td>3.96 (0.51)</td>
<td></td>
</tr>
</tbody>
</table>

Differences were expected given that teachers with more years of work experience on average assess their competencies higher (see Table 2.4). This can be expected especially if the majority of teachers pursue the desired direction of professional development and are characterised by active and critical activity in their mature career period (with more than 19 years of teaching experience), which then develops into relaxed disengagement. These teachers have achieved a certain level of autonomy; they act thoughtfully and responsibly in accordance with their views and values (Javrh, 2008). Therefore, we can expect that they will assess their competencies in the key areas of teaching with higher values. This tendency is noticed among both Croatian and Slovenian teachers.

2.5 Conclusion

Teachers’ professional development requires the appropriate institutional, administrative, and organisational structures, which recognise the importance of teachers’ continuous learning and encourage development at the individual and institutional levels. For continuing education, the teacher requires certain skills, determination for professional growth, and an appropriate climate within an institution that supports development and learning. We view teachers’ professional development as a lifelong learning and development process in the personal, social, and narrow areas of expertise. It is important, therefore, for the teacher to observe his/her
competencies and to evaluate the opportunities for his/her professional work in the direction of critical, independent, and responsible decision-making and action.

In our research, we found that teachers with more years of teaching experience assess their professional competencies in different areas, on average, with higher values; this was found on the subsamples of both Croatian and Slovenian teachers. The Croatian teachers, moreover, assessed their competencies somewhat higher than Slovenian teachers in all the offered statements (except for mentoring pre-service students and teacher-trainees), but no statistically significant differences were noticed between the two subsamples of teachers. Statistically significant differences in teachers’ assessments of teachers’ professional competencies were determined between Croatian and Slovenian teachers in their ability to analyse the strengths and weaknesses of their educational work, the establishment of a constructive dialogue with their colleagues, partnerships with other schools and institutions, and cooperation with parents. We found that Croatian teachers assess their skills higher in all of these statements. These are important areas of establishing communication with external stakeholders with whom the school cooperates in carrying out its mission, and which contribute significantly to the establishment of conditions for a quality school climate and culture, as well as the professional development of teachers. One of the characteristics of the so-called new professionalism (Niemi and Kohonen, 1995) is precisely the ability to cooperate with others, which transcends the confines of a particular school and views teachers’ mission as bringing change in the broader culture of the society in which the teacher works and explores. We recognise the ability to reflect on one’s educational work, i.e., the analysis of the strengths and weaknesses of such work, as an important factor and condition for professional development. It is interesting that both Croatian and Slovenian teachers assessed their competencies with relatively high values in all statements (on a five-point Likert-type scale the lowest average grade among Croatian teachers is 3.49, and among the Slovenian it is 3.45), so we might raise the question as to whether the teachers were sufficiently critical when assessing their own abilities. The teachers gave the lowest values to their competencies to work on research and development projects, to mentor pre-service students and teacher-trainees, and to establish partnerships with other schools and institutions. It can thus be assumed that these are the areas in which it would make sense to provide teachers with additional incentives and support in the future. We are aware that these are also areas that require more knowledge, skills, and innovativeness and, no less important, time. However, not all teachers are willing to commit themselves to this kind of professional activity because they prefer to devote time to their basic tasks and mission.
Maintaining a high degree of teachers’ professional competencies in other areas also requires adequate leadership support and mutual learning with colleagues – both inside a particular school and in the broader context. While doubts remain whether the teachers attempted to provide socially desirable responses in their evaluations, their self-assessments of their competencies in the different areas of work should be trusted, because it has been found that the teachers assessed their competencies to work in some areas of professional activity somewhat lower than others.

Based on the theoretical starting points, we can emphasise the importance of establishing such conditions and working opportunities that would encourage teacher reflection in different areas of their work, and enable them to improve their practice. Only a systematic analysis of one’s practice (experiences) can lead to the awareness of subjective teacher perceptions and a gradual change of educational activities in the classroom, as well as in other fields of teachers’ professional work (e.g., mentoring, researching one’s own teaching, partnerships with external institutions, etc.). Only then will a teacher become a reflective practitioner and thrive in his/her critical, independent, and responsible decision-making and action.

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