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PROFESSIONAL DEVELOPMENT OF TEACHERS WITHIN THE CONCEPT OF EDUCATION FOR SUSTAINABLE DEVELOPMENT

Abstract: The answer to the question on how to prepare young people to take the role of active citizens, develop their abilities, skills and values that will help them to integrate into a sustainable society and face all challenges, uncertainties and problems of the 21st century lies, among other things, in the continuity of education and training of young people, which is reflected in the continuous progress and professional development that we can see in the concept of sustainability, with special emphasis on the discourse of competence. In that sense, in the paper, through the analytical-theoretical approach, we emphasize the need to change the paradigm in the professional development of teachers as an important factor in the transformation of education for the sustainable future. The model of sustainable professional development of teachers, which is the subject of our study, does not only deal with the development of professional competencies but also explores the areas of personal and social behavior of teachers, as development guidelines in raising awareness, gaining knowledge and conceiving actions for sustainable development. The implications of studying this problem point to the need for a holistic, integrative, and transformative approach in the professional development of teachers and in the construction of a support system for teachers in accordance with the new educational discourse – education for sustainable development.

Keywords: Professional development, Teachers, Education for sustainable development, Competencies

Introduction

The concept of sustainable development, which represents a paradigm of modern development and progress in technology, economy, ecology and society, has its foothold in science and education, and is one of the proper solutions for the challenges faced by modern society, but also the initiator of further changes. In a society where globalization and intercultural conversation become the backbone of new relationships, the creation of new life skills and lifelong education become the primary objectives of modern society. In this context, “at the gates of postmodernism, contemporary pedagogy turns to everyday life as a time for lifelong education and learning: non-formal and informal ways of acquiring knowledge, professional competences and a culture

of living. Therefore, it is about the form and content of the permanent development of human potential and the creation of new competencies for the future, which pedagogy must anticipate and integrate into the lifelong education system as its primary task and permanent category” (Previšić, 2007, XIX). In this process, the leading concepts of change become “knowledge society”, “lifelong learning” and “competence development”. Rapid development and changes require the need for competent individuals who will not only adapt to changes, but will become active and accountable in managing and solving problems, those who will recognize their role and individual and collective responsibility as active members of the global community. How can we prepare people to face rapid changes and challenges?

Education for sustainable development is an approach that tries to answer these questions. In this sense, a tool that should build a competent, active individual equipped to live in an uncertain world of change and diversity is education (Anđelković, S., & Vračar, M., 2020). Knowledge becomes a strategic resource, a marketable goods and a competitive factor in achieving and preserving sustainable development (Anđelković, 2018). One of the goals of education for sustainable development is the acquisition of knowledge, skills, values and attitudes that will enable people to face problems that require transformation and self-transformation.

In order to develop students’ competencies for sustainable development through the ethos of school, and especially through the teaching process, we need a competent teacher who is able to recognize, understand, act holistically, be responsible and ready for further professional growth and development. In this sense, the competences of teachers in school and the implementation of the concept of education for sustainable development become important and topical from the aspect of educational policy, initial education and lifelong professional development.

Lifelong Learning and Professional Development of Teachers – a Need and a Challenge

Changes in the understanding of new discourses, perspectives and the potential of professional development of teachers pose more and more complex demands to experts specialized in education and educational policy. Problems related to different segments of the professional development of teachers (from initial education to lifelong learning) today represent key issues in the reform processes of those countries which strive to improve their own educational systems and adapt them to the needs of modern society (Đurić, 2017, p. 23). That is why, according to Bandur, Maksimović (2013), “teacher education as part of professional development is understood as an open and dynamic system that is related to different fields of social life and that includes different participants, it is a continuous process that begins with initial education, introduction to work, professional improvement and is connected with educational innovations and pedagogical research” (Bandjur, Maksimović, 2013, p. 22-32). Teacher is perceived by the educational policy and the entire society as an individual who should take the lead in monitoring developments in the field of this profession, as well as in the field of pedagogical sciences, in order to successfully fulfill his professional role (European Commission, 2000, as cited in Marušić, Pejatović, 2013). Considering the professional development of teachers as undoubtedly one of the most important factors in improving the quality of education, the *Strategy for the Development of Education in Serbia until 2020* proposes a strategic orientation that implies changes in the approach to basic education and professional training of teachers (Čaprić, 2016) and their professional development.

When using the term “professional development of teachers” some authors imply increasing the teacher’s awareness of what he does, how he does it and how he can improve his work (Bjekić, 1999), as well as the professionalization of the teaching profession (Beara, & Okanović, 2006). The authors Krstić and Osmanović (2015) claim that professional development is a complex

process that includes continuous development of teacher competencies in order to do their work better and improve the development of children, and which involves increasing the teacher's awareness of what he is doing and how he can improve his awareness (Krstić, Osmanović, 2015). According to Day (Day, 1999), professional development is "a process that includes spontaneous learning experiences, as well as consciously planned activities through which an individual, a group of teachers and a school improve the quality of education in the classroom" (Day, 1999, as cited in Đerić, Maksić, 2018, p. 82).

Based on these definitions of professional development, we can conclude that they are similar in that they highlight the improvement of the quality of teachers' work as the main determinant, and that they only differ in their content when defining professional development as a complex process that includes both the spontaneous learning experience and the continuous development of teacher competencies. In the professional literature, the term professional development of teachers is very often insufficiently delineated from terms such as: professional development, seminars and courses. The term professional development appears as a synonym for professional training and vice versa, which is incorrect, because these two terms differ in scope, quality and duration. In this regard, we will provide an overview of the comparison between professional training and professional development.

Table 6

Differences between professional training and continuous professional development

	<i>Professional training</i>	<i>Continuous professional development</i>
activities	seminar, course, workshop	seminar, course, master's studies, literature usage, distance learning, research, informal learning, coaching, mentoring, supervision, networks of teachers and schools, social media (Facebook, blogs, forums), collaborative learning, participation in school projects, partnership with scientific community, participation in creating educational policies
frequency	One-time, occasionally, as needed	regularly, continuously
formality	formal learning, accredited activities	formal and informal learning

We can conclude from the table that the main differences between professional training and professional development are related to activities, frequency and formalization. Professional training includes seminars, courses, one-time activities, which means that these are programs that are carried out within a short period of time (lasting a few days at the most), and that long-term learning effects are expected, although there are no follow-up or support procedures for the implementation of what teachers learn (Lieberman, 1996, Pešikan, 2002, as cited in Džinić, 2014). Professional development of an individual cannot, therefore, be reduced to occasional seminars and professional summits. It is a long-term process during which, through learning, practical work and research activity, the knowledge, skills and abilities of an individual are developed and improved (Popović, 2010). Teacher becomes a practitioner who reflects and sets the goals of his professional development in accordance with his needs, the needs of the profession and education.

Craft (Craft, 2000) lists ten principles of successful professional development of teachers, which he links to the improvement of the school as a whole:

- it is difficult for individuals to progress in a static school;
- schools cannot be changed without changing what teachers do;
- if teachers progress professionally only individually, then they probably will not be able to change their school;
- sometimes, when schools change, teachers do not change with them;
- a learning organization consists of individuals who, along with performing their basic duties, have the opportunity to learn;
- professional development of teachers is a continuous process that begins with the first and ends with the last day of their professional practice. It is lifelong learning;
- acquiring new information and successfully dealing with new situations is of crucial importance for lifelong learning;
- changes are a process, not an event;
- every individual is the bearer of change;
- theories of change and theories of education need each other.

The quality of a teacher's work is directly related to his professional training and professional development. It follows that the professional development of teachers directly affects the quality of the education process, that is, better success and more effective development of students, and their inclusion in life and work (Grandić, Stipić, 2011). The professional development of teachers begins with initial education – the acquisition of higher education knowledge, skills, attitudes and values related to the future vocation and continues during the teaching process by improving competencies in practice, and is improved based on reflective practice during teacher's personal experience.

Bearing in mind the modern understanding of the teaching profession and professional development of teachers who are seen as reflective practitioners, it is necessary to view the teacher as a professional who is not only active in building student knowledge, but is active, self-directed and effective in building his own competencies and self-development (Beara, Okanović, 2010). The key determinants of professional development are: a continuous process, a systematically planned and lifelong process that is based in the school itself and through cooperation with other partners aimed at improving the quality of work (especially student achievement) in the school and the position of the teaching profession within society. It is obvious that the concept of professional development implies a lot of change in the existing concept of the teacher's vocation related to different fields of teacher professional development (their own work, teaching and learning, student achievements and the support that teachers provide to students) and the alignment between these changes and the needs of a sustainable society. Teachers are one of the key factors in the quality of teaching and learning in a school institution and the quality of the school system as a whole (Spasenović, 2013, p. 156). The bearers of this responsible profession have significant impact on education, i.e. the connection between the goals of sustainable development and teacher education is strong and diverse (Veinović, 2018, p. 48).

The concept of professional development of teachers has changed quite a bit over time, starting from the concept of "training", practice, i.e., one-time, isolated training for acquiring a specific set of knowledge and skills, towards a systemic approach to continuous professional development of teachers (Ivić, Pešikan, Antić, 2003; Lyttle, 1993). For this reason, back in the 1980s, legislation demanded mandatory training of class teachers and subject teachers in Serbia (*Law on Basic Education and Education*, 1985/1986, according to: Marušić, 2010). Compulsory professional development is still defined by the *The Rule Book on Continuous Professional Development and Career Promotion of School Teachers, Preschool Teachers and Expert Associates* and is part of

the process of teacher professional development. In the aforementioned rulebook, professional development is defined as “a complex process that implies constant development of the competences of teachers, preschool teachers and professional associates in order to perform their work better and to improve the development of children, students and trainees, i.e., the level of their achievements” (*The Rule Book on Continuous Professional Development and Career Promotion of School Teachers, Preschool Teachers and Expert Associates*, “Official Gazette of the RS”, No. 81/2017 and 48/2018, which is in force since June 30, 2018).

Professional Development of Teachers in the Context of the Sustainable Development Concept

Teacher competences have a central place within the modern theories of professional development and empirical research. One of the main questions that arises when conceptualizing new education programs, as well as teacher training, is the question of the balance between general, subject-specific training and pedagogical, methodological-didactic and methodological training and preparation for participation in the planning of school development, educational programs, cooperation with parents, use of information and communication technology in the classroom, working with children with special needs, use of local resources and cooperation with the local community. The creation of teacher competencies for lifelong learning depends on positive selection at the faculty, the quality structure of teacher education programs, and the existence of a systematic process of professional training and self-education of teachers. Through professional development, teachers should improve their knowledge, skills, attitudes, build their ethics, become open to new learning by adapting to the demands of rapid changes in the society. Affirmation of the idea of lifelong learning based on the needs and interests of the “knowledge society” brings changes in teacher education and their professional advancement. Although teacher education programs in different countries differ, there are some common features. These are (Ben Peretz, as cited in Pastuović, 1999): studies of teaching content (academic disciplines); basic education studies; teaching profession studies (pedagogy studies); organized teaching practice. These characteristics should be viewed holistically, in mutual interaction. There are many problems related to each of the abovementioned characteristics: from finding the balance between academic theoretical knowledge, and pedagogical, didactic-methodological knowledge and abilities; from different points of view on what the content of the undergraduate education studies should be, from different content and scope of the pedagogy program/curriculum, as well as the way it is taught at the faculties; as well as the organization and execution of methodological-didactic practice and building a reflective teacher who will question the existing practice and improve it.

Curricular approach aimed towards the development of future competences of teachers wishes to develop the need for permanent investment in professional development, which is a prerequisite for guiding their students in the process of lifelong learning. In order to develop students’ competencies for sustainable development with the school curriculum, we need a competent teacher who is able to recognize, understand, act holistically, be responsible and ready for further professional growth and development (Anđelković, 2018). Teachers should be able to prepare students for the knowledge society, where they are expected to be self-initiative, capable and motivated to learn throughout their life (Đurić, 2017). The importance and quality of initial education and professional teacher education, which precedes practice, has direct consequences for educational practice and the development of teacher competencies for education for sustainable development.

Professional development of teachers as an important segment of professional advancement, which is closely connected with socio-economic, scientific and global changes, as well as teacher training and their education should be viewed in the context of these changes. The key meaning of professional development and professional advancement of teachers is reflected in the

need to increase the quality and efficiency of teaching (Thomson, 2003). This is made possible by the constant acquisition of new knowledge (professional, pedagogical-psychological and didactic-methodological knowledge), deepening and expanding the existing knowledge, mastering new usable skills and raising the general level of competence for the successful performance of the teacher's calling. Also, the professional development of teachers has the character of lifelong improvement (Simeunović, 2010). During their initial education, teachers do not have the opportunity to learn how to manage their professional development, so they have to develop these skills in practice (Pešikan, Antić, Marinković, 2010, as cited in Đerić, Maksić, 2018, p. 94), which is why it is necessary to encourage them to choose a certain form of professional training. The concept of teacher professional development does not only imply the necessity of teacher learning even after initial education, but emphasizes the continuity of different phases of education and the ongoing nature of professional development (Radulović, 2016, p. 123).

The Republic of Serbia is a signatory to the *Agenda 21* document on the implementation of sustainable development, and thereby undertook to ensure its implementation in the education system. However, in Serbia, education for sustainable development is not carried out in a systematic way, but depends on the ability of teachers to integrate it into current curricula. In aligning their professional development with the needs of a sustainable society, the teacher himself plays a significant role, his openness to innovation, enthusiasm, professional curiosity and desire to change and improve his own practice. It is necessary for teachers to be critical of their work. The success of this integrative role of teachers depends on several factors, primarily on the teacher's professional preparation, motivation and willingness to improve further (Anđelković, 2018). In addition to the knowledge of the subject he teaches, the teacher must also have knowledge in the field of pedagogical and psychological disciplines, as well as methodological knowledge and skills (Đurić, 2017, p. 28). In order for professional training to have the desired outcomes, it must be adequately planned, whereby it is necessary to take into account both the individual perspective of the teacher, as well as the position and possibilities of the school (Đerić, Maksić, 2018, p. 95).

According to the authors Krstić and Osmanović (2015), teachers become more ready to accept changes and use modern ways of teaching, which is a good starting point to develop skills and abilities and strengthen competences to conduct education for sustainable development and to provide help to other teachers and support them when choosing a certain type of professional development program. Teachers must be supported by the system, but also by the schools where they work (Pešikan, 2010). This clearly indicates the need to plan and implement various programs and activities that will help teachers acquire new knowledge, develop skills and abilities, and strengthen the competences required for the education for sustainable development, which will improve their further work. Professional development of teachers aimed at developing the competences of teachers required for the education for sustainable development should be planned and carried out through different forms of training, which differ in terms of the level and quality of the outcome of the implementation.

Lifelong Learning Aimed at Strengthening the Competence of Teachers for Sustainable Development

Life in modern society requires lifelong learning. Lifelong learning is not only one form of education and training, but tends to become a leading principle in the entire context of learning. "Lifelong learning is a continuous, voluntary and self-motivated search for knowledge for personal or professional reasons" (Mijanović, 2017, p. 69-86). According to the Memorandum on Lifelong Learning of the European Commission (2000), the term lifelong learning refers to all forms of learning during adulthood with the aim of improving knowledge, skills and competences within personal, civic, social or professional activities.

Lifelong learning implies the integration of formal, non-formal and informal education, but also experiential learning, e-learning, distance learning, all with the aim of ensuring individual knowledge and skills for the purposes of improving the quality of life (Miljković, Sitarica, 2016). In this paper, we were interested in lifelong learning as a tool for strengthening the competencies of teachers for sustainable development. The need for lifelong education of teachers through formal and informal forms of learning is indicated in the UNESCO report *Towards a Knowledge Society* from 2007. Priorities in the knowledge society are as follows: individual readiness to learn and improve throughout life, selection and adoption of the right information, application of acquired knowledge in new situations, development of curiosity, critical awareness, creativity, communication, independence, social competence, management of one's own learning process (Miljković, Sitarica, 2016).

The concept of lifelong learning does not imply only a quantitative expansion by connecting initial education with adult education. When education in childhood and youth is coupled with permanent, continuous lifelong education, this also causes qualitative changes in the structure of education, especially by including various possibilities of the knowledge society: in addition to formal, also informal and non-formal education is affirmed (Radeka, Petani, Rogić, 2008, p. 303).

Lifelong learning and education outgrow the framework of an idea and become a necessary goal of a society that learns and builds foundation on knowledge (Horvat, Lapat, 2012). The concept of lifelong learning has gained crucial importance with the emergence of new technologies that change how we receive and gather information, collaborate with others and communicate. "New teacher education programs at the initial and professional level must be aimed at shaping such teachers who will be sustainable citizens, educated, trained and who will have proper competencies for lifelong development and learning focused on the implementation of education and education for sustainable development when facing future challenges" (Andjić, 2015, p. 369).

Conclusion

The findings of this study indicate that although a lot has been done, including the education policy, legal documents, as well as practice, there are still many problems related to the professional development of teachers. Teachers are faced with the process of improving and developing the competencies that already exist, but also with acquiring new ones that arise from the growing educational needs of the economy, ecology, society and the individuals. It is important for teachers to create various models of professional development that will range from lesson planning to evaluation process, and to start from practical needs when determining the thematic content and forms of work. In order to meet the needs of teachers and to help them respond to the challenges of modern education, further investment in the professional development of teachers and the formation of an effective system of support for teachers is necessary, starting from educational policy, initial teacher education, and professional development of teachers, lifelong professional development for education for sustainable development. The answer to the question – how can one keep up with the times, how can one respond to the needs of modern society, how can one know what are the abilities, skills and values that lead to successful integration in a knowledge-based society, must be sought in the continuity of education and training of people, which is reflected in constant advancement and professional development, which is reflected in the concept of lifelong learning, in the unity of formal, non-formal and informal education. The pedagogical implications of the study of this topic indicate the need for a transformative, reflective approach to the professional development of teachers and in accordance with education for sustainable development.

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