FORMATION OF TRANSVERSAL COMPETENCIES IN THE PROCESS OF FUTURE PRIMARY SCHOOL TEACHERS’ TRAINING

OLENA MATVIEWHO, LIUDMYLA POPOVA

Abstract. The article updates the problem of professional training of future primary school teachers in the context of forming the necessary knowledge, skills and abilities. Different views of scientists on the content of the concepts of competency, competence and professional competency of pedagogical workers are considered. Ways of forming transversal competencies in the process of training future primary school teachers, the modern form of development of professional knowledge and communication, which in fact determines the urgency of finding optimal ways and means of its implementation at the current stage, are considered. The lack of systematic scientific and methodological support determines the relevance of the study of transversal competences in the preparation of future primary school teachers in the modern system of international educational professional training. An attempt was made to analyze the main trends of reforming professional education in the European educational space (Romania, Bulgaria, Ireland, Finland, Portugal, etc.). It also actualizes the need to study and use the experience of foreign countries, taking into account the specifics of domestic realities, and to make a comparative analysis of the theory, methodology and organization of future primary school teachers training in the context of modernization of the education system in Ukraine.

Keywords: transversal skills, transversal competency, professional training, modeling tasks, educational space, the concept of the new Ukrainian school, primary school teacher, lifelong learning.

1. INTRODUCTION

The problem of updating the modern content of higher education in Ukraine, restructuring of educational programs, taking into account a number of economic, social and humanitarian factors (the strategy of the development of the world economy, globalization processes; the formation of a new educational society, the phenomenon of informatization and intercultural communication) requires the presence of new approaches to solving problems of modern education. The educational standards are based on these aspects, but they are not limited to the Recommendations of the European Parliament and of the European Council, on key competencies for lifelong learning (18 December 2006).
The modern world is complex. It is not enough to only give a child the necessary knowledge. It is also necessary to teach how to use that knowledge. Currently, in global practice, the effectiveness of education is associated with the implementation of the competency approach. Competent learning outcomes of primary school students defined in the previous documents – the State Standard (2011), in the Requirements educational programs (2012), in the Requirements for monitoring and evaluating educational programs student achievements (2014). It should be noted that the 2011 standard mainly focused educators on the formation of subject competencies in elementary school students, then as the newly created regulations are aimed at achieving the key ones.

“New Ukrainian School” (NUSH) is a reform of schooling by the Ministry of Education and Science of Ukraine, which was provided for the creation of a school where children would learn through activities, “in which it will be pleasant to learn and which will give students not only knowledge, but also the ability to apply it in life” [20]. The leading goal of every educational reform, including current one, there is an increase in the quality of education. Knowledge and skills, linked to the pupil’s value system, form their life competencies that are essential for successful self-fulfillment in life, education and work”. A competence is a dynamic combination of knowledge, ways of thinking, views, values, skills, proficiencies, and other personal qualities that determines individual’s ability to perform professional and/or further educational activities successfully” [20, p. 10-12].

Future primary school teachers should be ready for the latest forms of pedagogical interaction with students, their parents and representatives of various social groups. The pedagogy of partnership comes to the fore, which is based on communication, cooperation and collaboration between the teacher, the pupil, and the parents. the teacher should be a friend, while the family be involved into constructing the educational trajectory of the child [20, p.10-12]. The main principles of partnership pedagogy: respect for the individual; kindness and positive attitude; trust in relationships; dialogue — interaction — mutual respect; distributed leadership (proactivity, right to choose and responsibility for it, horizontality of connections); principles of social partnership (equality of parties, voluntariness of commitments, obligation to fulfill agreements). Future primary school teachers should be ready to perform their professional duties in new conditions, possess theoretical knowledge and formed practical skills to implement the assigned tasks [20].

The Organisation for Economic Cooperation and Development (OECD) is an international organisation that works to build better policies for better lives. Their goal is to shape policy that fosters prosperity, equality, and well-being for all. As it (2009) states: “Globalisation and modernization are creating an increasingly diverse and interconnected world. To make sense of and function well in this world, individuals need, for example, to master changing technologies and to make sense of large amounts of available information. They also face collective challenges as societies – such as balancing economic growth with environmental sustainability, and prosperity with social equity. In these contexts, the competencies that individuals need to meet their goals have become more complex, requiring more than the mastery of certain narrowly defined skills” [14]. A competency is more than just knowledge and skills. It involves the ability to meet complex demands, by drawing on and mobilising psychosocial resources (including skills and attitudes) in a particular context. The European Commission offers the following helpful definition which delineates competence and skills:
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<table>
<thead>
<tr>
<th>Key Terms</th>
<th>Definitions</th>
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<tr>
<td>Transversal Competencies</td>
<td>An ability to understand how to be, how to act and how to apply knowledge in a variety of professional settings. Often also referred to as core skills or attributes. Transversal competencies are considered essential to ongoing professional development and career efficacy.</td>
</tr>
<tr>
<td>Lifelong Learning</td>
<td>A self-cultivated mindset that is focused on ongoing personal growth and professional development. Generally understood to occur via conscious experiential learning in new situations; however, it can incorporate formal education also.</td>
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<tr>
<td>Micro-Credentials</td>
<td>Minor qualifications or certified acknowledgement of a, usually narrow, learning achievement relating to competencies, knowledge, skills and/or experience in certain subject area.</td>
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<td>Experiential Learning:</td>
<td>The process of learning by doing through practice, repetition, and experience; usually accompanied by reflection to consolidate the learning.</td>
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<tr>
<td>Assessment</td>
<td>Refers to the methods and processes used by educators to evaluate the wide variety of student outputs submitted or enacted as evidence of learning to a specified standard.</td>
</tr>
<tr>
<td>Student-Centred Learning</td>
<td>An educational philosophy and method that centers the focus on the learner and their educational needs rather than being focused on the teachers’ delivery and expertise. A constructivist approach that seeks a move towards active, rather than passive, learning.</td>
</tr>
<tr>
<td>Reflective Learning:</td>
<td>A systematic internal reflexive process of learning from experiences for the purposes of continuous and novel improvement. Usually involves a form of self-monitoring and evaluation and critical analysis of same.</td>
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</table>

Tab. 1. Transversal Competences in Higher Education.

Thus, through the prism of the formation transversal competencies in the process of training future primary school teachers, such a form of professional knowledge development and communication is recognized, which actually determines the relevance of the search for optimal ways and means of its implementation at the current stage. That is why the insufficient development of this problem in the theory and methodology of domestic professional education, lack of systematic scientific and methodical support determine the research relevance of the experience of the transversal competencies formation of primary school teachers in the professional training systems of European countries.

2. LITERATURE REVIEW, GENERALIZATION OF MAIN STATEMENTS

The introduction of a competency-based approach to the educational system of Ukraine made it possible to solve the general problem of future teachers acquiring the necessary theoretical knowledge and practical skills to solve specific tasks and problem situations. Teaching competence is about knowledge (knows what), skills (knows how) and attitude (knows why).

One of the main priorities of educational reforms in Europe is the professional competence of teachers with leading transversal competencies. Nowadays, it requires reliance on international experience, on the works of scientists who help to determine the essence of competence in general and transversal competencies of future teachers in particular. The transversal rethinking of the
ways of professional training of modern specialists involves the awareness of the systemic and holistic result, as well as the identification of signs of students' readiness to apply relevant knowledge, skills and experience in practice. In the scientific literature, the components of training future specialists for professional activity are substantiated in details, but modern realities of social and economic spheres of activity require a new approach.

Within the Erasmus+ EU project in 2015, a large-scale international study “KEYSTART2WORK” was introduced. Analyzing the data obtained as a result of conducting questionnaires, interviews, discussions in groups, interviews, the document “Catalogue of transversal competences” was developed, where a description of twelve domains [KEYSTART2WORK] was presented, namely: 1) intercultural skills and global awareness; 2) flexibility and adaptability; 3) strategic and innovative thinking; 4) organizational skills and time planning; 5) ability to make decisions; 6) ability to work in a team; 7) empathy / ability to build relationships; 8) ability to solve problems; 9) training orientation; 10) negotiation skills; 11) leadership skills; 12) the ability to collect and process information [2]. The European Commission considers the concept of “competency” as general, or key, basic skills, fundamental studying methods, core qualifications, cross-learning skills, crucial ideas, background knowledge, the ability to apply study achievements in new non-standard settings (EC, 2019) [2].

To achieve these goals, a bibliographical research was carried out on the attention that is currently given by higher education international institutions to this topic, how they respond to the need for increasingly more transversal training of future specialists and how they develop a curriculum that meets these requirements.

Particular attention should be paid to the works of researchers devoted to the interpretation of the concept of “transversality” from the standpoint of Sciences (N. Tsankov, L. S. Wilkinson); analysis of relevant factors that are of decisive importance for employment on the European labor market, determination of requirements for compliance with certain levels of global competitiveness (J. Balkar, E. Homolova); development of employees’ skills for work abroad (M.-J. Tayach); issues of training and assessment of the level of formation of transversal competences (L. Terzieva, I. Traina); the concept of competence concept in the development of vocational education and training in selected EU member states. the higher education mission and the place of transversal competences (M. Mulder, T. Weigel, K. Collins, M. José Sá).

Thus, in methodological terms, a thorough research on the literature addressing the topic of transversal competences was carried out.

The formation of transversal competencies in the process of training future primary school specialists is directly related to the use of the cognitive capabilities of the students for learning, the formation of skills for the interpretation of the acquired knowledge, the presence of conditions for ensuring independence, creativity in solving problematic tasks, and critical understanding of the information received. Constant transitions from the concrete to the abstract and from the abstract to the reinterpreted concrete in the process of knowledge awareness develop cognitive interest, which is realized in the learning process. This necessitates the conscious use of logical methods (analysis, synthesis, induction, deduction). It should be noted that this necessitates the conscious application of logical methods (analysis, synthesis, induction, deduction).
According to the scientist N. Tsankov, understanding the algorithm of these processes requires the development of a system of cognitive tasks for the formation and development of relevant transversal competencies. Thus, the researcher comes to the conclusion about the requirement for cognitive modeling in education and the development of a group of tasks for the development of competence: 1) modeling tasks; 2) tasks for recoding information from one type of model to another; 3) classification tasks for modeling defining relations; 4) tasks for comparison and modeling of abstractions; 5) generalization tasks for modeling gunusspecies relations; 6) evaluation tasks and tasks for modeling causal relations [19, p. 331-332]. Structuring of educational information, modernization of the content of education contributes to the formation of indicators of transversality [19].

More and more scientists are inclined to think that the progress of humanity depends on the level of personal development, and not on economic growth (A. Kykylyk, H. Stukan, L. Hlushok et al.) [7]. Despite the relatively large number of publications on the phenomenon of teacher competence, it can be argued that the information component of this concept is not always covered. In this aspect, modern researches on professional competency can be represented by a wide range of interpretations of the essence and structure of this notion (P. Aguilar, I. Lopez-Cobo, F. Cuadrado, I. Benítez):

- set of theoretical and practical readiness for pedagogical activities;
- future teachers’ awareness of the knowledge, skills and their normative features necessary for the performance of professional functions; psychological qualities desired for its implementation in accordance with standards and norms;
- future teachers’ knowledge of the subject and its teaching methods, the development of professional self-awareness throughout life long, individual personal traits and professionally significant qualities;
- basic knowledge, skills, values of future specialists, motivation, personal style of interaction with people, general culture, the ability to develop [1].

Analyzing the system of professional training of future primary school teachers in Romania (“Development of an operational system of qualifications in higher education in Romania”), the researcher Petrovici C. in the article “Professional and transversal competences of future teachers for preschool and primary school education” claims that “…the assessment of professional competencies, at the same time implies taking into account three fundamental elements:

- the types of situations which emphasize the mastery of competence;
- the resources that this competence mobilizes, theoretical and methodological knowledge, attitudes, skills and abilities, action schemes, and the perception, evaluation, anticipation and decision ones;
- the nature of thinking schemes which allow the challenge, mobilization and administration of pertinent resources in complexes situations and in real time, the role of an initial quality professional training in order to get good results with students” [13, p. 726].

The researcher believes that only the formation of professional competences entitles a future specialist to apply for a job in an elementary school. By this, the author understands: the development of training programs or programs adapted for different age levels / training and target groups; implementation of educational activities in primary and preschool education;
assessment of learning results and success of children of primary school age; management approach to the educational process and measures for social integration related to the specific age of the target group; counseling and educational assistance for various categories (students of lower grades, family, etc.); self-assessment and continuous improvement of professional practice and career development” [13, p. 728].

As far as the didactical profession is concerned, researchers have pointed out the existence of several levels of professional performance: 1) the level of singular working skills, when the teacher is capable to achieve only isolated tasks with the students; 2) the level of reproduction of some given complex action schemes; 3) the level of the proper pedagogical competence, when the teacher is capable to adapt the action schemes creatively depending on the context.

Bulgarian researchers (Y. Merdzhanova, V. Naydenova, P. Petrov) come to the conclusion that for the formation and development of transversal competences within the systematic and goal-oriented implementation of basic methodological approaches and technologies this process is also related to the observance of specific didactic principles and conditions in order to ensure the necessary efficiency. This necessitates the special training and qualification of teachers which is a basis for expanding the research curriculum with regard to: 1) the relation curriculum - transversal competences because it is interesting how they integrate into curricula due to their interdisciplinary status; 2) the design of the educational environment in modern schools; 3) the expectations from students and teachers; 4) the transformation of the professional training of modern teachers; 5) the ways to form the professional profile of the teacher as an expert, consultant, mediator and moderator in the course of the formation and development of students’ transversal competences [10].

Researching the topic of the higher education mission in Portugal and the place of transversal competences in these processes, scientist Maria José Sá notices that the term “transversal competences” has been first defined by McClelland in his paper “Testing for competence rather than for “intelligence” as “a sum of knowledge, skills and aptitudes, which contributes to the capacity of a person to effectively perform the duties and responsibilities of the occupied job, in other words, to be competent” [12, p. 24]. The author comes to a conclusion “… although transversal competences are already informally embedded in pedagogical practices, it is necessary to intentionally address and consolidate this educational aspect. This new pedagogical positioning will allow responding more accurately to the current evolution of the organization of work and to the required competences, such as responsibility, proactivity, autonomy, adaptability, resilience and transfer of competences” [12]. Confirmation of this position is followed in the studies of other Portuguese scientists (L. Sánchez, A. Santos-Olmo, E. Álvarez, M. Huerta, S. Camacho, E. Fernández-Medina). Scientists believe that the development of an expert system for the evaluation of students’ curricula should be created on the basis of competencies.

There is a clear valuing of transversal competences for the future profession. We find a thorough analysis and confirmation of the importance of using transversal competencies in the professional training of future specialists in institutions of higher education in the research “The Future of Tranversal Competences in Higher Education Asstsment” prepared by scientists Jean Cushen (Ireland) and Lauren Durkin (USA) [5]. Researchers reveal the growing importance of cross-cutting competencies for higher education quality performance assessment practice; predict
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that cross-cutting competencies will play a crucial role in future professional work scenarios. In particular, the study interprets the commitments and adjustments that higher education leaders must make to create a competency assessment infrastructure and the necessary process support; the guiding role of student-centered pedagogy is discussed. Accordingly, an early competency framework is offered as an understanding of how student-centered learning can provide new, active, reflective assessments that embrace a diversity of competencies and focus on meaningful development. Finally, a road map is offered for higher education leaders to guide them in this complex but urgent transformation of university teaching and learning [5].

Jari Lavonen in his article “Curriculum and Teacher Education Reforms in Finland That Support the Development of Competences for the Twenty-First Century” analyzes how learning twenty-first century competences has been implemented in the Finnish educational context through the enactment of national and local level curricula and the design of a teacher education development program in a decentralized education system, in which teachers, schools, municipalities, and universities have high autonomy. The curricula and development program emphasize learning twenty-first century competences. Both were designed in collaboration with Finnish teachers and teacher educators, representatives from the Ministry of Education and Culture, the Association of Finnish Local and Regional Authorities, the Teacher’s Union, the Student’s Unions, and the Principal Association. Thus, it can be concluded that the introduction of transversal competences into training programs in institutions of higher education should be implemented only as a result of the combined efforts of society, all those interested in training a highly qualified specialist [8].

The author pays special attention to the challenges of the time, to the solution of urgent problems faced by institutions of higher education in Finland, namely:

- “student-level challenges: decrease in learning outcomes, wellbeing, and engagement in learning and lack of interest in science, technology, engineering and mathematics (STEM) careers; various needs and support to the learning processes of various learners; and, moreover, challenges in integrating formative and summative assessment in order to support learning;”

- “classroom-level challenges: challenges in guiding students in active and collaborative learning processes; challenges in teaching and learning in heterogeneous and multicultural classrooms; challenges in supporting students to learn twenty-first century competencies according to the new curriculum; and challenges in designing and using versatile inside and outside of school learning environments, including the use of technology in learning;”

- “school- and city-level challenges: increase the variation between schools in the learning outcomes; lack of teachers’ collaboration; organizing quality work at the local level; designing and implementing improvements or education reforms and using digital tools in teaching and administration; lack of pedagogical leadership support for teacher’s professional learning, including teachers’ personal development plans and support in induction phase; and lack of resources;”

- “challenges in teachers’ competencies: challenges in pedagogical competences and innovative orientation; lack of willingness and competencies for personal professional development and for the development of the school environment; and teachers’ local and international networking;”
- “society-level challenges: number of young people dropping out of school or from the labor market and an increase in inequality; the influence of digitalization, such as artificial intelligence and automation, on the education sector; the need for continuous training of adults to reflect the changes in working life, like digitalization; and the need to support sustainable development” [8].

Having analyzed the history of the development of the concept of “transversality” in the field of international educational space; modern requirements for professional training of future specialists; after examining the skills that future specialists must master within the chosen specialty, we note that only under the conditions of the formation of transversal skills, a systematic approach to the analysis of complex social and technical tasks, the formation of strategic critical thinking, social and professional mobility will the competitiveness of future specialists on the labor market increase as within our country and beyond its borders.

3. DISCUSSION

Thus, the analysis of domestic and foreign studies (Aguilar P., Lopez-Cobo I., Cuadrado F., Benitez I. (2019); Care E., Luo R. (2016); Kykylyk A., Stukan H., Hlushok L., Shorobura I. & Bloshchynskyi I. (2020); Merdzhanova Y. (2014); Terzieva L., Traina I. (2015) related to the development of various competences in the process of training the future primary school teachers at the present stage showed significance of this problem and the need to focus on different pedagogical aspects. The process of training the future primary teachers has its own specific features, which are directly related to the development of transversal skills in the future pedagogical career.

Professional future primary school teachers’ training should contribute to the development of the personal potential of future, their comprehensive understanding of pedagogical activity and personal creative improvement.

The study showed that professional training should contribute to the development of personal potential of the future music teachers, their objective and comprehensive understanding of music and teaching activities along with their personal creative transformation. This creates a necessity for a didactic interpretation of the means of development of transversal competences. Additionally, it poses a necessity to improve teachers’ special preparation and qualification to design educational environment that can guarantee the achievement of transversal competences as an educational outcome.

4. CONCLUSIONS

Theoretical analysis of literature, the study of modern programs and work plans of pedagogical faculties, methodical associations of primary school teachers and different scientific researches on the problem of the formation of transversal competences in the process of future primary school teachers’ training indicated the professional significance of this phenomenon. It was established that the transversal competences of a primary school teacher consist of motivational and value based components, provide a high quality of general professional competence of teachers at the high level presented by the European educational system.

In our opinion, it is the formation of transversal skills in future primary school teachers (communication, multitasking, organization and time allocation, teamwork, creativity, critical thinking, leadership) that will contribute to their effective adaptation to modern requirements for future specialists in the labor market. It is very important to continue the idea of this through
another one in which there should be develop appropriate tools and methods for assessing these professional and transversal competences.

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AUTHOR CONTRIBUTIONS
All authors contributed equally to this article.

Address: Olena Matvienko, Liudmyla Popova, National Pedagogical Dragomanov University, 9, Pyrohova Str., Kyiv 01601, Ukraine.
E-mail: o.v.matviyenko@npu.edu.ua; l.m.popova@npu.edu.ua
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У статті актуалізується проблема професійної підготовки майбутніх учителів початкових класів у контексті формування необхідних знань, умінь і навичок. Розглянуто різні погляди науковців на зміст понять "компетентність", "компетенція" та "професійна компетентність педагогічних працівників". Розглянуто шляхи формування наскрізних компетентностей у процесі підготовки майбутніх учителів початкової школи, сучасну форму розвитку професійних знань і навичок, що власне і зумовлює актуальність пошуку оптимальних шляхів і засобів її реалізації на сучасному етапі. Відсутність системного науково-методичного забезпечення зумовлює актуальність дослідження трансверсальних компетентностей у підготовці майбутнього вчителя початкової школи в сучасній системі міжнародної освітній професійної підготовки, зроблено спробу проаналізувати основні тенденції реформування професійної освіти в європейському освітньому просторі (Румунія, Болгарія, Ірландія, Фінляндія, Португалія та ін.) Це також актуалізує необхідність вивчення та використання досвіду зарубіжних країн з урахуванням специфіки вітчизняних реалій і проведення порівняльного аналізу теорії, методики та організації підготовки майбутніх учителів початкової школи в умовах модернізації системи освіти в Україні.

Ключові слова: наскрізні вміння, наскрізна компетентність, професійна підготовка, моделюючі завдання, освітній простір, концепція Нової української школи, учитель початкової школи, освіта впродовж життя.