Danish context of higher pedagogical education: training of teachers for Folkeskole

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Abstract. The main theme of the research is Danish context of teachers training for Folkeskole in the system of higher pedagogical education. The article deals with the analysis of the main features in the teachers professional training system of Denmark that leads world in the impact of innovational and democratic education for the 21-st century society and has gained a positive experience in creating its own strategies for reforming of all the important teacher education components.

Keywords: higher pedagogical education, teachers professional training, 21-st century skills, European environment

Introduction. Teachers are considered to be the main subject of change in the modern knowledge-based society and without progressive changes in teacher education it is impossible to transform a society as a whole. As Ukraine is on the way of joining the European educational environment, there is a need for significant conversion and substantial renewal throughout the whole system of its higher education. In order to provide the Ukrainian society with teachers whose competencies would meet modern requirements, it is important to understand how teachers professional training should renovate. From the standpoint of comparative pedagogy, an important source of the current strategy of pedagogical education development in Ukraine is the analysis of world experience in teacher training, the study of patterns and trends in the development of this important component of the educational sphere in various socio-cultural parts of the planet.

Brief overview of publications on the topic. Definition of strategic directions for the development of the teacher education system is of concern to the entire world community today. Recently there were appeared new studies of domestic scientists, connected with modern changes in the quality of education as a whole and the analysis of foreign experience in teacher professional training. The article presents analytical materials of Ukrainian scientists: Nichkalo N.G., Ogienko O.I., Pukhovska L.P., Matviyenko O.V., Mukan N.V., Leshchenko M.P., Desiatova T.M., Dyachenko L.M., Kotun K.V., Marusinets M M, Sulyma O.V., Postryghach N.O. and European pedevtologists: Søren Poulsen, Jørgen Ole Larsen, Birgitte Bikvard, Jean-Claude Juncker, Scott Davies, Ove Korsgaard, etc.

However, the scientific literature analysis shows that in Ukrainian educational environment very few studies have investigated the problems of teacher training in Denmark in terms of higher education modernization in the 21st century. This led to the choice of the topic of our study.

The purpose of research. The major objective of this study is to investigate and generalize the theoretical and practical experience of teacher training in higher education institutions of Denmark in context of European education reforming in the early twenty-first century.

Methods. Data for this study were collected using the systematic, synergetic, culturological, axiological approaches to the comparative analysis of pedagogical phenomena. Basic information was gathered from multiple sources of European and Danish environments at various

time points during 1990 till 2018. Application of dialectic, objective, continuity principles has made it possible to identify characteristic features of teacher education in institutions of higher learning of Denmark and to explore the process in chronological order.

Results and discussion. For a detailed study of pedagogical education in Denmark, let us dwell on the general characteristics of this country's educational environment. In the European educational setting, Denmark is considered as a country with a high quality of innovational education, based on research and combined with practice. Education in democratic Denmark is a means of forming a developed person with the same opportunities for all members of a society [8]. This definition was adopted by the Folketing of Denmark in 2012 as a result of the Bruges Communiqué, declaring the task of vocational education and training development in the EU until 2020. This definition clearly captures three dimensions: 1) social; 2) institutional; 3) individual [2]. So, we shall continue our analysis, taking into account these abovementioned areas.

Analyzing the social area, we emphasize that the root of education development in Denmark and its pedagogical component as a whole lies in the values of the European knowledge society gradually transforming into a multicultural democracy. These values are based on the following principles: recognition of human rights, religious and cultural freedom, autonomy of an individual and his/her free choice in the process of learning; responsibility for the final result of training; tolerance to students and recognition of diversity and differences in their mental abilities [2]. Considering the important role of teachers in Danish society, all of the above mentioned principles are reflected in their training at higher education institutions.

Thanks to the introduction of the National Qualifications Framework (NQF) in the European Credit Transfer System, teacher training programs in Denmark are becoming more moderated, flexible, mobile and accessible to all. The concept of a teacher professional training throughout life (læreruddannelse i hele livet LHL) is implemented at the general Danish state level [5].

A characteristic feature of all Danish higher education institutions after the reforms starting since 1990-s is that they are divided into two sectors: 1) university or academic (akademisk); 2)vocational or non-academic / professional (professional).

The vocational sector is represented by specialized professional colleges, including pedagogical ones. They implement short-term (kortvarig videregående uddannelse - KVU) and medium-term (mellemfristet videregående uddannelse - MVU) vocational training programs. Danish short-term higher education (KVU) is a two-year vocational training program, but it is not used in the system of teachers training for Danish secondary schools [6].

The medium-term training programs for Danish teachers of secondary schools (MVU) are equivalent to 240 European Credit Transfer System (ECTS), designed for three or four years of specialized pedagogical training and are implemented in 17 Danish Colleges of Education.

At present following the decision of the Danish Ministry of Education on the flexibility and mobility of tertiary education in general, a future Danish teacher can receive mid-term training at a university college (i.e, directly at the university). The main difference between mid-term programs of pedagogical education in colleges and universities lies in the fact that non-academic programs are more vocational-oriented, they are aimed at narrower specialization, they can train teachers of gymnasiums, teachers of the first and second level of the secondary schools of a certain direction, teachers of the kindergarten, etc. [3].

Danish universities offer both mid-term (MVU) and long-term (LVU) tertiary education. Long-term programs (langsigtet videregående uddannelse - LVU) for teachers training continue five years. The flexibility of Danish pedagogical education is easy to demonstrate by the fact that any student, having completed the medium-term program, can become a student of a long-term one through the system of enrollment of credit units. After the first three years of professional education at the university, a Bachelor's degree is awarded. Bachelor's degree in a teacher training program may be both the final point or the starting part in the educational trajectory change, continuing pedagogic education to the Master's degree, as well as the Doctor of Philosophy (Filosofisk doktor -PhD) or the Doctor of Pedagogical Sciences (læge i pædagogiske Videnskaber) [6].

The academic sector in Denmark includes twelve universities, five of which combine several faculties; the last seven are specialized universities. The first place in the structure of higher pedagogic education belongs to the University of Copenhagen (Københavns Universitet), the oldest university in the country with almost twenty-six thousand students. Aarhus University (Aarhus Universitet), established in 1928 as a private institution, after the recent reformation, is operating under the control of the Danish Ministry of Education; it is almost twice as small as the University of Copenhagen. The youngest university in which teachers are trained is located in Odense (Odense Universitet). It trains 5,500 students, one third of whom studies humanities [3].

Thus, in the social dimension, the democratic principles of Danish pedagogical education are combined with the flexibility and logic of organizational structure.

Regarding the institutional dimension, we want to start our analysis with those knowledge, skills and competences that teachers need to acquire in a higher education institution as to make Danish secondary school one of the most effective and educational services quality of Danish Folkeskole teachers one of the highest in Europe and in the whole world. The current study found that the characteristic feature of Danish secondary school is the generally accepted system of class leaders, when the same teacher leads the class throughout the period of study in an elementary school and at the basic level of the secondary school. Danish professional teachers hold the general view that schools, Folkeskoles first and foremost are much more than just a place of a child education: they have a much wider social function, which is to prepare future members of a democratic society for adulthood. So the traditional task of a teacher, consisting in the formation of knowledge, skills and abilities of students, has gone away in the past. Danish teachers today see their mission to provide the development of personal and social 21-st century skills such as active citizenship and personal independence, leadership, ability to work in a team, selfconfidence in problem solving and decision making, collaboration, creative and critical thinking, ICT competent, internal motivated [6].

All these aspects also affect the teacher's training, that is, at Danish pedagogical institutions individualized training is supported enhancing the learning outcomes and aiming at reducing drop-out rates; stimulating the democratic atmosphere of an educational institution and promoting social learning and non-violent behavior, in other words, the conditions under which Danish higher education institutions become places where young people are happy and where they like to study in the community of their peers.

In recent years, Denmark suffers of an insufficient number of teaching staff for secondary schools. In 2015, the number of admissions to Danish pedagogical higher education institutions was 2,943 students, compared with 3,710 applicants in 2011 [8]. So Danish Ministry of Education submitted for consideration a special credit transfer program for training of teacher for schools at all levels. According to this program, education in the specialty of a secondary school teacher includes compulsory and selective subjects and is designed for 4 years of training in higher education institutions relating to the medium- and long-term programs, both of non-academic and academic sectors. Students who choose the profession of a teacher must receive both theoretical and practical knowledge, in accordance with the curriculum for a particular subject [5]. The program identifies the subjects and the number of credit units that a day student must spend to study the discipline during the academic year. The following disciplines are offered as basic:

1. Humanities - Danish, English, French, German, History, Christian Studies / Religious Studies, Social Sciences.
2. Exact Sciences - Biology, Physics / Chemistry, Geography, Mathematics, Natural Sciences, Technology.
3. Practical / aesthetic sciences - fine arts, internal economics, design, sports, music, art of work with metal and wood.

A student must choose for compulsory study disciplines from at least two subject cycles. For example, the future teacher can choose as the main subject of studying Danish or Mathematics; or Danish and mathematics together. Each basic subject must be studied for at least four semesters. After studying the course of basic subjects, future teachers should have a "deep substantive and di-

dactic understanding of the essence" that will enable them to build a system of teaching children in accordance with the goals set by the school, considering both the main features of society development, as well as the potential, conditions and prerogatives of an individual child the development [1]. Such deep understanding of the essence of the studied subject enable the future teacher to formulate criteria for the assessment, accumulation and use of learning material and other means of training. Important is the fact that such pedagogical knowledge is acquired in a balanced interaction between the study of theoretical subjects and pedagogical practice.

Pedagogical practice of university and professional college students in Denmark usually lasts five months, that is, a semester. Pedagogical practice or internship, with the total number of 60 lessons, has active and passive phases. Pedagogical practice is conducted at schools under the supervision of a mentor, that is, a teacher of high qualification, appointed by the Ministry of Education of Denmark. The mentor monitors the work of the students, gives them valuable advice, corrects mistakes. As Danish teachers think such kind of a practice is necessary to give the basic concepts and knowledge of the educational process as a whole, of planning the lessons and curriculum implementation.

In the system of higher education in democratic Denmark, where independent educational institutions implement medium- and long-term teacher training programs, there exist independent Councils in which teachers, together with students and groups of interested school teachers, develop programs and curricula for each subject being studied at tertiary educational institution. The Ministry of Education of Denmark establishes a certain framework and gives recommendations for the creation of such programs.

Management of Danish higher pedagogical institutions are decentralized. There is no state curriculum or control system for the execution of the individual items. All powers of control over higher educational institutions are transferred to local authorities, and in fact they, together with municipal educational centers, are responsible for the quality of teachers training and implementation of the state policy principles. The state educational policy and standards of pedagogical education through the ministries are brought to the municipal authorities of the relevant educational institutions, which control the results of educational activities of higher educational institutions. According to Danish law, the task of municipal governing bodies of educational institutions is not only to ensure the guarantees of every citizen for education, but also to create conditions for self-determination and self-realization of an individual [7].

One unanticipated finding is that, the social and institutional dimensions affect the individual level of teacher training. In the individual dimension there are a number of aspects influencing the vector of modern Danish pedagogical education development: 1) the orientation of education and training on the individual needs of a student and a future teacher (studerende-fremtidige lærer); 2) equality in education and access to education for all (ligestilling og adgang til uddannelse for alle); 3) continuity of education throughout life (læreruddannelse i hele livet LHL) [4].

The individual dimension of pedagogical education is, in our opinion, directly related to the personality of the future teacher, namely his professional readiness to competently perform his functions in the modern school of a knowledge-based society. The Folkeskole Law No. 1445 dated by December 12, 2017, emphasizes that a professional, competent teacher of Danish folk schools must have: 1) profound knowledge in one or more disciplines or educational fields; 2) high degree of knowledge of information and communication technologies and their effective use in the educational process; 3) a general understanding of socio-economic realities in a broad sense and the ability to pass it on to the students; 5) ability to transfer general learning skills to students through their teaching and organization of learning processes; 6) ability to cooperate in a team; 7) research skills, introspection and ability to the necessary changes in pedagogical work (teacher as a pupil); 8) ability to communicate and empathize with students; 9) ability to innovate and implement innovation in the teaching process [1].

Analyzing individual dimension we must stress that Danish teachers are prepared to move away from traditional teaching. In practice of school subjects teaching some new forms such as independent and integrated learning, project work, learning through the exchange of experience, training in practice are widely used. In the field of Danish school education, information and communication technologies are increasingly implemented to create a virtual environment and simulate real-life situations. New pedagogical approaches of the modern XXI century teacher are aimed at fostering creativity and critical thinking of future members of a democratic knowledge-based society.

Danish scientists in their research projects concluded that every two years of professional activity in the 21st century, teachers' knowledge is increased by an average of three to four times [1, 6, 7, 8]. Therefore, it is simply impossible in the system of tertiary education once and for all to prepare a young teacher for the efficient work at a secondary school. Pedagogical education should give a future teacher the confidence that he will be able to sustain, throughout his life, the process of active cognition of reality. A teacher in the information society simply does not have the right to be the bearer of archaic knowledge, since it depends on a teacher in its entirety, the formation of world perception, morality, culture and life principles of future citizens of a society. The leading idea of the Danish organizational model of pedagogical education is to support and ensure the professional development of teachers at all stages of their professional formation. Such model of professional training is a combination of differentiated educational institutions, national in nature. They provide the future teacher with basic pedagogical education (tertiary): bachelor's, master's, candidate's, doctor's programs; professional training and provide the process of professional development of teachers through the target subsystem, namely the introduction into teaching activities, advanced training, non-formal education. Processes and components of the system in general are interrelated. The control over their functioning - at least partially - is the prerogative of the Danish State.

Conclusions. The conducted analysis of Danish system of teachers training for XXI century Folkeskole allows to make the following conclusions:

- professional training of a teacher for a modern Danish knowledge-based society can be considered in three dimensions: 1) social; 2) institutional; 3) individual;
- the public domain of Danish pedagogical education is based on the values of the European knowledge society, gradually transforming into a multicultural democracy;
- from the point of view of the institutional dimension, teachers training in Danish tertiary institutions is characterized by: multilevel, flexibility, modularity, mobility;
- for the individual dimension, the leading idea of the Danish organizational model of pedagogical education is to support and ensure the professional development of a teacher throughout his life;
- a comparative analysis of European and Ukrainian experience, the identification of common and special national traits in it, can be used in reforming and improving the model of teacher education in Ukraine.

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