

PILOT AREA AS A FORMAT OF SCIENCE AND EDUCATION WORK REALIZATION IN THE SYSTEM OF HIGHER EDUCTAION

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Resume. The academic paper deals with the innovative form of creating the educational process in the higher education institutions considering the scientific statements and the usage of the scientific method in the educational process that has to promote students' scientific thinking. It also specifies the particular work organization within the pilot area, which supports future primary school teachers' research position and requires their continuous expansion of disciplinary and interdisciplinary subject areas.

The organization of the research work within the pilot area encourages students to make scientific observations, questionnaire surveys, and other techniques of experimental testing for writing course paper, diploma thesis and master's research paper. The studies appear in the detailed analysis of certain topical issues referring to teaching and training children, their characteristic features of physical and mental development, adaptation to learning etc.

Key words: *educational process, science and education work, higher education institution, future primary school teacher.*

Introduction

The basic principles of science policy in higher education in Ukraine consider the importance and requirement for the advanced development of science, arising from the needs for training future teachers and researchers. The democratic process in social life, the transition from industrial technologies to the science and information production have set the national higher education the task to improve and intensify science and education work in higher education institutions in Ukraine. Thus, one of the ways to solve this problem is the organization and development of higher education institutions of a new type, which would consider science as an effective factor in their development. In our opinion, one of the solutions to this problem is creating pilot areas based on comprehensive schools, the specific character of which is determined by the unity and interdependence of the teaching process and research activities. Consequently, an important issue is to find out various effective ways of future primary school teachers' training for the implementation of the activities mentioned above.

Social dependence of future primary school teachers' professional development corresponds to the strategy of higher pedagogical education in Ukraine, determined by the

relationships in education, change of communication style between the subjects of the educational process (collaboration between lecturers and students).

The principle of educational theory and practice unity is one of the leading. It requires the integrity of the scientific and practical interaction. Logical and methodological foundations of pedagogy lay the basis to this principle.

The principle of science is the main in the presented model. Research and education complex is the center where knowledge of objective scientific facts, concepts, laws and theories in main branches of teaching science, as well as interdisciplinary research areas, are concentrated. Particularly important is the awareness of science and education synthesis as a leading idea in organization and functioning of the higher education institutions [3, p. 47].

Practical orientation of students' research work appears in the detailed study and analysis of certain topical issues referring to teaching and training children, their characteristics features of physical and mental development, adaptation to learning etc. Students' research work provides the formation of scientific and pedagogical thinking characterized by immersion into psychological and pedagogical situations, creative search and personal vision of the effective problem solving. Therefore, scientific thinking supposes students' mastering the scientific knowledge method, which gives them the opportunity to solve various professional problems and get the knowledge autonomously. The implementation of this principle involves the construction of teaching process within higher education institutions considering the above-mentioned scientific statements; and the use of scientific method in the university educational process, which targets at students' scientific thinking development. The maintenance of the research position within a particular discipline while future teaching work at school, requires constant expansion of disciplinary and interdisciplinary subject areas [3; 4, p. 264-271].

The illustration to scientific and pedagogical complex "higher education institution – comprehensive school" is the collaboration between Chernihiv National T. G. Shevchenko Pedagogical University (Preschool and Primary Education chair) and Ripky Gymnasium (Primary Education chair) within the program "Scientific and Methodological Support of Health Protection Educational Environment within the Concept of the Ukrainian New School". So, basic experimental school is not a place where students only do teaching practice, but it becomes the center of science and research work. A positive aspect of future primary school teachers' education and research work is the activation of the need for new knowledge, as well as the organization of autonomous learning and personal growth.

Science and research work within the program of pilot area activity is held in the framework of Preschool and Primary Education chair, Chernihiv National T. G. Shevchenko Pedagogical University. Teachers of the chair do the research work on certain topics, which correspond to the pilot area issue. Since the points of health protection educational environment are urgent under current conditions of the Ukrainian new school becoming.

The organization of this type of science and education cooperation provides the high level of scientific and research work, its integrity and differentiation, possibility of quick scientific achievements implementation into school life practice (course projects,

individual education and research tasks, etc.); provides the opportunity to follow the involvement and interdependence of all stages of education (preschool, primary school, secondary and high school). The combination of science and research, theory and practice with education definitely affects the level of teachers' professional training.

The rationale of the research is determined by:

- the need to improve the quality of Natural Sciences, Mathematics and Health Education of children while going to primary school;
- the lack of innovative techniques introduction into teaching practice with primary school children;
- the lack of proper use of qualitative methodological support of organizational and educational activities being adapted to schoolchildren's age;
- the need in contemporary innovative teaching techniques, in particular, health protection ones, implementation into teaching process in the context of Ukrainian new school creation.

The basic idea of the experimental work being the foundation for the study on science-based system of young learners' health protection competence formation is the innovative technologies use in accordance with the concept of patriotic education and trends in reforming primary education level.

Methodological principle of positive motivation formation of children and young people's healthy lifestyle is the humanistic model of education, the essence of which is to create a favorable situation for their readiness to perception and adequate response to educative actions of school and social environment. The level of such readiness is characterized by children and young people's ability to transform external requirements into internal motivation, behavioral motives with the awakening of consciousness and responsibility for personal culture [1, p. 38-46].

The methodological basis is the activity and system approaches to positive motivation formation of healthy lifestyle. The activity approach requires cultivating of individual effective position with the purpose of personal becoming and development, moral and spiritual self-improvement.

The criteria for the formation of positive motivation on healthy lifestyle in children and young people can be considered from:

- level of physical health: the longing for physical perfection; treating own health as the highest social value; physical maturity; the total physical capacity; being fit; following the regime; fulfillment of the requirements of personal hygiene; proper nutrition;
- level of social health (social welfare): formed civil responsibility for the consequences of unhealthy lifestyle; positive communicative aims; friendly relationships with people; the ability to self-actualization, self-regulation, self-education.

The methods being used while studying the health protection processes are as following: *theoretical* – system analysis, comparison and synthesis of philosophical, psychological and educational, scientific and technical, methodological literature on the problem under study; *diagnostic* – teachers' and schoolchildren's psycho-diagnostic testing and surveying; interviews with teachers, learners and their parents; *observational* – study and analysis of domestic and foreign teaching experience; systematization and generalization of personal teaching experience; analysis and introspection of lessons of Health Basics and Science; teaching process observation; *experimental* – carrying out

summative, investigative and formative assessment to test the suggested system of guideline and adjust single items in the designed teaching technology; to make qualitative and quantitative analysis of the data obtained during the experiment.

Summary and Conclusions

Practical significance of the results of the study is as following:

– design and implementation of young learners' innovative teaching health protection competencies into primary school practice within the system of patriotic education;

– working out different types of teaching and learning activities for children on the basis of educational program means implementation (1, 2, 3, 4-th grades accordingly), a series of health and skills games, interactive presentations, on-line recourses, etc.

– development and implementation of original teaching materials and recommendations, guidelines, textbooks, which can be taken advantage of by educators, primary school teachers, students, etc.

The creation of health protection educational environment and schoolchildren's correspondent skills formation are carried out through special training courses, clubs, events, teaching excursions, integration of Healthcare Science into core primary school disciplines, etc. School events also play an important role: days of health, themed lessons, annual healthcare school fests, quiz contests, etc.

Everything mentioned above requires special methodological facilitation that we are lack of nowadays. Moreover, teachers need methodological advice in the rational selection of the teaching tools and materials adequate to the contents of the discipline. No less important is the problem of correct, pedagogically reasonable tools application to the teaching process.

Scientific work within pilot area allows deep and substantial study of the individual health formation, health protection environment creation, which are prior and important within Ukrainian new school becoming.

The practical orientation of science and education work within pilot area also suggests that students have the opportunity to make scientific observations, questionnaire surveys, and other techniques of experimental testing for writing course paper, diploma thesis and master's research paper. The studies appear in the detailed analysis of certain topical issues referring to teaching and training children, their characteristic features of physical and mental development, adaptation to learning etc.

The further research within pilot area functioning supposes the study and analysis of primary school teachers' methodological, scientific and pedagogical support on the problems of health protection and other important issues of primary school teaching process organization (from the teachers' point of view).

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