Ongoing challenges of teachers' training within an environment of higher education reforms in Ukraine

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Paper received 24.04.20; Accepted for publication 14.05.20.

https://doi.org/10.31174/SEND-PP2020-228VIII92-07

Abstract. The main task of education is to prepare young people for changes in the society which they should be able to respond in a non-standard and flexible way. Modern society is characterized by a change in the structure of economic markets, the development of new technologies, including the rapid development of information technology, the implementation of new scientific results in the practical activity of people. The labor markets dictate certain requirements for university graduates, such as adaptability, professionalism, flexibility, readiness for continuous learning. The changes taking place in the modern society require continuous improvement of the educational space, defining new learning goals according to the national demands and social, personal needs and interests. All these factors highlight the need to revise the old educational standards and develop new ones. It is obvious that educational doctrine should include the levels of secondary and higher education. The new national reform aims to train professionals who are able to work in constantly changing conditions. The teachers are faced with new tasks of students' knowledge and competencies formation, necessary for their further qualitative and effective work activity. Thus, structural changes in education systems are caused by the need of transition from subject-oriented learning to result-oriented learning, the demand for non-formal education, i.e. the ability to integrate traditional education with new approaches to learning. In this regard, the training approaches, which will develop and ensure students' independent thinking and contribute to realizing their individual capabilities, are becoming of high priority.

Keywords: teachers' training, higher education reforms, training approaches, educational environment.

Introduction. Nowadays, the educational progress is becoming highly significant worldwide due to growing importance of the human and social capital for the economic development of countries. There is no doubt that education can be seen as the most important factor for the development and even survival of all the humanity. A diverse range of educational opportunities opens up access to intellectual, cultural values, which expand teachers' outlook, deepen their professionalism, develop their competencies and, therefore, provide them with new experiences they can use in a career advancement or as job seekers.

Presently, we live in the society which determines new higher education requirements for the professional competence of teachers. The democratization in the society has created opportunities for the education to be innovated in order that new approaches should create the basis for the constant social renewal. Innovative processes show the need to educate a flexible, dynamic person who wants to live under new constantly changing conditions.

The aim of the article is to attract the attention of scholars and tertiary education teachers to the ongoing challenges of teachers' training within an environment of higher education reforms in Ukraine.

Research Methods: To achieve the purpose of our study and also to clarify ongoing challenges of teachers' training, there were used the following methods: systematic and comparative analysis of pedagogical works, methodological and specialized literature; synthesis and generalization to formulate the main points of the study; interpretation of the research results.

Brief publications review on the subject. Theoretical and methodological principles of teaching strategies and training approaches for teachers to introduce into the educational process were studied by scientists and practitioners in the field of pedagogy and psychology, including A. Asmolov, O. Avdeyuk, E. Ponomareva, N. Shturbina

Results and Discussion. The current level of social

and economic development of mankind, rapid scientific and technological progress and noospheric changes require not only relatively similar training to adapt to modern industrial and social life, but diverse, multilevel and multifocal training that enables individuals to become adjusted to rather dramatic changes in economic, social, political and cultural life. Today's high school teaching is focused on an activity approach, hence for various teaching strategies it is advisable to differentiate a teacher's role, aimed at achieving up-to-date educational goals.

The following teaching strategies can be described as follows: a teacher-tutor provides pedagogical support for students; a teacher-moderator fosters students' creativity and abilities; a teacher- advisor helps students find ways to solve a problem they meet; also, a teacher- advisor carries out parents' pedagogical education, regulates and coordinates educational impact of the family and school (the function of "interaction with parents") and creates proper pedagogical conditions for successful learning, children's development and upbringing (the function of "education and upbringing"). The teacher should select a method of teaching to organize students' learning activities and ensure comfortable conditions for the achievement of modern educational goals, which will imply the formation and development of universal learning activities and allow teachers to realize successfully their educational experience.

Differentiated learning provides a platform for the formation of cognitive interest, mental and creative activity. It can be achieved through the modernization of forms and methods in teaching and learning, based not only on acquiring memorizing and applying available knowledge, but also on independent studying to gain knowledge and develop skills in the process of active cognitive activity. So, the system-activity approach allows students to show effective learning outcomes.

The system-activity approach in teaching and learning is based on the task of teaching students (including uni-

versity students) to use knowledge in their educational and everyday activities. These tasks can be solved in such an organization of the educational process, which develops in students the need for creative transformation of educational material in order to acquire new knowledge for the development of personal attitudes. The systemactivity approach in education involves several stages of the educational process:

- defining the goal as a learning ability;
- being aware of the need to acquire new knowledge for solving vital tasks;
- engaging students in purposeful educational activities and systematic forming their personal convictions and values.

According to A. Asmolov, the system-activity approach makes it possible to determine the main results of education and upbringing in the form of "key objectives of students' development" and "the formation of universal ways for educational and cognitive activities" [1].

The personality-oriented approach to learning is focused on the development of a student's personality as an active subject of learning activity. It also includes such aspects as students' comprehensive preparing for life-long learning, self-development and self-improvement, supervising and organizing their education. If taken Biology lessons as an example, students should be taught, above all, to be aware of the value of the living world and its systematicity, of the unity of living and inanimate nature, of a human being as a subject of life, not a consumer, of moral values like tolerance, hardworking, responsibility and care of others. The personality-oriented approach to learning Informatics implies the ability to work with information, which includes collecting, transforming, transmitting, accumulating and systematizing the data. With defining a clear purpose and methods by a teacher, each lesson should be organized in a way to encourage students' activity, stimulate them to acquire new knowledge to be transformed from reproductive to research one. Also, in order to provoke conscious personality thinking teachers should get students interested in obtaining knowledge by presenting the life-based educational material at the level of students' personal involvement, excluding abilities and knowledge which are remoted from life of young people. Their self-motivation in learning must be prioritized. Moreover, it is highly important for the students to use their new knowledge and abilities in daily practice. Their feeling of satisfaction from the work done is no less significant as a component of successful learning and teaching strategy. The work should not be routine or tedious, but creative without rigorous algorithms, regulations and guidelines for studying a subject. The opportunity to select a certain activity at any level of the learning process should be provided for learners to support their independent thinking. The main difficulty for a teacher is suggested to build learning pathways for students' complete awareness of the laws of existence in all groups of biogeocenosis and the role of a human being in their preservation [2].

The key to reach these pedagogical objectives is to execute active forms of learning and introduce new forms of pedagogical work into teachers' daily practice. This suggests the need for organizing the learning process in such a way that every step of obtaining new knowledge will

contribute to development of students' cognitive abilities, formation of such methods of mental activity as synthesis and analysis, comparison and generalization, fixed in the forms of conclusions. Active teaching methods may solve a number of tasks related to different aspects of educational activity and imply as follows:

- involving students in the learning process;
- developing their skills of independent intellectual work;
 - improving cognitive activity;
- enabling them to remember large volumes of information:
- developing creative skills and non-standard thinking, etc.

This educational approach leads to changing the role of a teacher in the learning process, being viewed as one of an activity coordinator, a mentor and consultant rather than of a teacher [2], [3].

The teaching modeling strategy with the use of different learning tools such as tables, figures, etc. is supposed to be an effective means of the collaboration of learners and teachers. Advantages of modeling technology over other pedagogical technologies are based on:

- intensifying work of the entire group of students, regardless of their individual potential;
- mobilization of mental efforts and increased concentration of attention, activation of all types of memory;
 - self-acquired knowledge.

No collaborative transformative activities are possible without the use of such sources of information as educational and specialized literature, manuals, directories, training programs, internet resources. The lessons should be divided into stages. The first stage of a lesson includes establishing the problem, stating one of the main questions on this problem and actualizing relevant knowledge. The next step should encourage the group of students to state a problem or seminar task, which is written on a paper and displayed on the screen. After that a teacher engages the students in solving the tasks. This process can be described as a "climbing ladder", with each step of its own meaning, for example, the first step has the meaning of "I already know", the second step means "I need to know", the third step is the source of knowledge and the fifth one is of "where I can use the new knowledge". The second stage of the lesson is focused on the overall process of new knowledge "discovery" and presenting examples of its application. Among high school and university groups of students, the format of a lesson could involve prediction tasks regarding the practical significance of the topic under discussion, which allows learners to be more comprehensive while accomplishing a learning task. Working with a textbook plays an important role in students' achieving the heuristic objectives, that is acquiring and mastering new skills. Also, learning a new topic is built on a dialogue, questioning students and eliciting their responses which learners should find in the textbook by themselves. The teacher can highlight some complicated and significant points of the topic through problematic narration. The third stage of the lesson includes the workshop for students to apply the newly acquired knowledge. To evaluate their understanding of a new topic, the teacher poses questions and calls on students to answer them, then students perform laboratory or practical tasks either individually or in groups. The Olympiad competition results show that students have the greatest difficulties in performing the experiment using the materials and equipment offered, in formulating its results and drawing conclusions.

The new standards of education reflect the requirements of the modern era and define the personal qualities for humans to be able to live and work in dignity in the contemporary society, which will require a new person to be seen rather as a researcher than just a performer. The mission of a teacher is to help each young person comprehend their life and live decently, to explain young people the sense and values of the life, to encourage them to develop their skills and abilities. Educating a researcher opens up great opportunities for the upbringing of an active and creative personality, who is capable of conducting independent search, making their own discoveries. The research activity develops in young people the whole range of educational skills, including personal abilities as follows:

- the desire for learning and cognitive activity;
- the desire to acquire new knowledge and improve existing one;
- the ability to analyze problems and successfully cope with them;
 - the ability to explore new activities;
- the desire to participate in the creative learning process:
 - the ability to self-evaluate their actions;
 - being aware of themselves as citizens.

The students' research activity should not be restricted

by only training sessions but be based on a gradual formation of research approach in the students to enable them to solve various life problems and become critical thinkers. The research work can be considered effective providing that:

- it includes an attempt to recognize the unusual meaning in the ordinary thing, to note complexities and contradictions in areas which seem to be simplified to others;
- it is personally meaningful, within students' interests:
- students and teachers are equally interested in the study;
 - it is enjoyable.

The organization of educational and research activities in the classroom is one of the conditions to prepare students for continuing education, for their effective adaptation and socialization in the modern society and creative self-expression. Therefore, the construction of educational environment involving any active form of learning should be based on a humane-personal approach. The humane-personal approach can be considered as a significant factor not only for successful learning and personal development of a student, but rather for the personal and professional growth of a teacher [4].

Conclusions. All things considered, we conclude that the task of transforming a student from a passive object of the learning process to an active creative personality involved in this process requires tremendous work, both for each teacher individually and for the coordinated activity of the entire teaching staff aimed at step-by-step bringing up students to be independent thinkers.

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