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MODERN PEDAGOGICAL TECHNOLOGIES IN THE EDUCATIONAL PROCESS OF HIGHER SCHOOL

WSPÓŁCZESNE TECHNIKI PEDAGOGICZNE W PROCESIE KSZTAŁCENIA SZKOŁY WYŻSZEJ

Streszczenie. W artykule omówiono możliwości edukacyjne i dydaktyczne nowoczesnych technologii pedagogicznych, posługiwanie się którymi jest jednym z obiecujących kierunków rozwoju szkolnictwa wyższego. Autor artykułu przedstawia algorytm oraz skuteczne wdrożenie najczęściej używanych technologii pedagogicznych w kształceniu studentów, a mianowicie: portfolio technologiczne, technologie projektowe oraz technologie rozwoju krytycznego myślenia i pisma.

Annotation. The article deals with the educational and didactic possibilities of modern pedagogical technologies, the use of which is one of the prospective directions of the development of higher education. The author presents the algorithm and processually effective realization of pedagogical technologies, which are most actively used in the professional preparation of students, namely: portfolio technology, project technology, technology of development of critical thinking and writing.

Background. Higher education along with some indicators characterizing innovative potential of a country is one of the factors of marketability of Ukrainian economy. The introduction of techno-logical innovations in the educational process of higher school can help to decide the tasks of preparation of specialists aligned with the time. The task of modern higher school is an increase of competence of teachers in the area of highly effective use of information,

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communication and interactive technologies, creation and development of universal educational sphere, stimulation of formation of the new culture of pedagogical thinking.

The use of modern pedagogical technologies in the educational process of an institute of higher education creates quite new possibilities of realization of didactic principles of individualization and differentiation of instruction, influences positively on the development of cognitive activity of students, their creative activity, consciousness, realizes the terms of transition from teaching to self-education.

Analysis of recent publications. The efficiency of the use of pedagogical technologies in educational process is confirmed by research works of number of authors: G. K. Selevko, V. I. Andreev, V. P. Bespal'ko, V. I. Bogoljubov, M. V. Klarin, V. J. Pitjukov, V. A. Slastjonin, J. A. Savel'ev and others. Nowadays thorough theoretical development of the problem of usage of modern pedagogical technologies in the professional preparation of a specialist in the terms of higher school acquires special importance and meaningfulness.

Modern technologies in education are viewed as means by dint of which a new educational paradigm can be realized. The most general interpretation of the concept "technology" consists in the fact that it represents scientifically and practically grounded system of activity, which is applied by a man for the purpose of transformation of the environment, production of material or spiritual values. V. P. Bespal'ko notes that any activity can be either a technology or an art. An art is based on intuition, a technology – on science. Everything begins with an art, and ends with a technology for the purpose of beginning again[1]. Any planning, without which in you can't do the pedagogical activity, conflicts with an impromptu, acting by intuition, and therefore can be considered as the beginning of technology.

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[1] Bespal'ko V. P. Elements of pedagogical technology.- M.: Prosveshhenie, 1989. - 231 p.

In the pedagogical science and practice one can reveal the existence of various interpretations of pedagogical technology. And it is not casual, as every author comes up to understanding of the essence of technology in general proceeding from the certain conceptual approach.

However all existent positions are characterized by the following points:

- a technology is purposefully developed for the certain pedagogical intention, in its basis there is a methodological, philosophical position of the author;
- a technological chain of actions and operations is arranged strictly in accordance with objectives, which have a form of a concrete expected result;
- functioning of a technology envisages the interrelated activity of a teacher with students on a contractual basis taking into account principles of individualization and differentiation, optimal realization of human and technical possibilities, use of dialogue and communication;
- the stage-by-stage planning and successive embodiment of the elements of a pedagogical technology must be, from one side, reproduced by any teacher and, from the other, guarantee the achievement of the planned results by all students;
- the organic part of any pedagogical technology consists in diagnostic procedures, containing the criteria, indexes and instruments of measurement of the results of activity.

The purpose of the article. While giving students professional training different innovative technologies are used. In this article we are going to dwell on some of them, namely: Portfolio Technology; Project Technology; Technology of Development of Critical Thinking and Writing.

At the same time an inalienable part of any studied course, by means of which modern pedagogical technologies are realized in practice, is a methodical complex which, in our opinion, must include:

- a video computer system, by means of which a teacher conducts lectures and seminars in the specially equipped lecture rooms;
- "screen shot", some special hand-out, the specific of which is that besides a communication-information function, it accomplishes a function of the activizer of the creative activity of a student in the process of filling by him of specially designed charts, boxes, directories and so on;
- a set of interactive technical and program training resources.

The main material. Let us consider an algorithm and processually effective realization of each of earlier designated technologies. Mostly portfolio is determined as a collection of works and results of a trainee, which demonstrates his/her efforts, progress and achievements in different areas. This technology complements the traditional controlling and evaluating facilities which are directed, as a rule, towards the verification of the reproductive level of mastering of information, fact-based and algorithmic knowledge and abilities. Portfolio technology allows taking into account the results, attained by a student in the various types of activity – educational, creative, musical and performing, communicative and others and is the important element of the activity approach to education.

Portfolio is not only the modern effective form of evaluation but also helps to decide important pedagogical tasks: to support high educational motivation of students; to encourage their activity and self-sufficiency, to extend possibilities of learning and self-learning; to develop skills of reflexive and evaluative activity

of future specialists. The described features of portfolio make out of it the promising form of presentation of the individual orientation of educational achievements of a definite student, which answers the tasks of his/her professional preparation. The Introduction of portfolio technology made it possible to increase the educational activity of the students of the Department of Foreign Languages, the level of their realization of own aims and possibilities.

While developing the portfolio we focus on its three types:

1. "Professionally methodical portfolio", which includes: material for the lessons (informative); game and entertaining material (games, quizzes, cross-words, entertaining tasks); didactic material (plans of lessons, learning aids, complexes of tasks); material for extracurricular work (scenarios of holidays, evenings, topics of discussions and so on); an audio library for realization of extracurricular activities. Such a model implies the possibility of both qualitative and quantitative evaluation of the materials of portfolio. "Professionally methodical portfolio" will be useful for the students during their school practice and their further professional activity.

2. "Portfolio of works" is a collection of different creative, project and research works, and also the description of basic forms and directions of its educational and creative activity: participation in conferences, competitions, additional courses, etc. This variant of portfolio implies qualitative evaluation, for example, according to the parameters of variety and persuasiveness of materials, quality of the presented works, orientation to the chosen area of knowledge. Portfolio is arranged in a form of a student's creative folder with the attachment of his/her works, presented as texts, electronic versions, photos, video records. Portfolio of this type gives a wide idea about the

dynamics of educational and creative activity of a student, character of professional orientation.

Here we offer the exemplary variant of records in the "portfolio of works":

- projects (the theme of the project and the description of work are given, there can also be an attachment in the form of photos, text of work (printed or electronic version), etc.);
- research works and reports (studied materials, names of work, illustrations and other are specified);
- creative works (the list of works is given);
- participation in competitions, festivals, contests (the theme, timing and attained results are specified);
- participation in scientific practical and theoretical conferences, seminars, etc. (the theme of event, the name of the organization, which conducts the event, the form of student's participation in it and result are specified);
- other forms of creative activity (participation in hobby groups and other circles and societies).

Dealing with the "portfolio of works": students can also either of their own choice, or on their teacher's instructions, select for their "dossier" various types of written works done in this discipline.

3. "Portfolio of reviews" includes characteristics of student's attitude to different types of activity, and also student's own writing analysis of his/her definite activity and its results. Portfolio can be presented in the form of texts-conclusions, reviews, comments, resumes, essays, reference and thank-you letter (for example, after a period of teaching practice) and so on. This form of portfolio gives an opportunity to activate the mechanisms of students' self-evaluation, which promotes the

degree of realization of the processes related to education. Here is the exemplary list of documents in the "portfolio of reviews": a conclusion as for the quality of the executed work; reviews of the articles, reports, research works; references about the work in a creative team, appearances at conferences, competitions or contests; a resume prepared by a student with the estimation of own educational achievements.

The basis for project technology is the development of cognitive interests of students, abilities to construct knowledge independently, abilities to orientate in the informative space, the development of critical thinking. Project technology always focuses on the independent activity of students (individual, pair, group), which is done by students during the certain span of time.

The basic requirements to the use of project technology are occurrence of a problem or a task which is significant in research and creative terms and require integrated knowledge and investigative search for its solution; practical, theoretical, and cognitive significance of the supposed results; independent (individual, pair, group) activity of students; structuring of the substantive part of a project (with indication of stage-by-stage results); use of research methods (determination of a problem and tasks of a research which follow from it and forming of the hypothesis of their solving; discussion of research methods; drawing up of eventual results; analysis of the obtained data; summarizing, updating, conclusions).

We have defined the criteria for the assessment of the development of a project. To these criteria we refer the significance and topicality of the problems which have been brought up; the necessary and sufficient depth of penetration into a problem and the involvement of knowledge from different areas for its decision; completeness, substantiveness of a project; topicality and potential

of a project. It is necessary to build education on active basis, through reasonable activity of a student, complying with his/her personal interest exactly in this knowledge. Therefore it is extremely important to show students their own personal interest in the acquired knowledge which can and must be useful for them in their further professional activity. In this connection it is necessary to choose a problem which is significant for a future specialist. It must be a problem for the solution of which he has to apply knowledge which has been already obtained and during the process of solving of which to get new knowledge. Herewith, the task of a teacher to suggest new channels of information or just steer student thoughts in the right direction for an independent search. The choice of themes of projects is defined by a teacher with due regard to the educational situation on the discipline which is under study, or by students themselves, if the project is intended for extracurricular activity.

The work on a project usually consists of a few stages:

1. The searching stage (determination of objectives of a project, realization of organizational work; formulation of a problem of a research; determination of an object and a subject of a research; hypothesizing).

2. The designing stage (determination of directions of work and immediate tasks; determination of methods of search of channels of information by directions; determination of research methods; organization of groups; grouping of tasks).

3. The technological stage (independent work in groups, exchange of information; implementation of the pre-arranged technological operations; quality monitoring; analysis of the information collected by groups, working out of the scenario of the defence of a project which is structured in the following way: denotation of a project; defence of the hypothesis;

conclusions, explanation in the form of tables, charts, pictures and so on; answers to questions.

4. The final stage (panel discussion, examination of a project, analysis of the results of implementation of a project; conclusions).

As a result students have to solve a problem independently and by joint efforts, applying necessary knowledge sometimes from different areas, and get a real and perceptible result. The results of the executed projects must be material, i.e. properly designed (an album, a report, an essay, etc.) Thus, the development of cognitive skills of students, the abilities to form their own knowledge independently and orientate oneself in informative space, the development of the critical thinking lie at the root of project technology.

Critical thinking is the ability to raise new questions, elaborate various arguments and make independent deliberate decisions. The development of this type of thinking by means of the interactive involvement of students into the educational process is the aim of the other technology under examination.

Technology of development of critical thinking and writing has its own particular features, namely: emphasis on the independence of students in the educational process; search of the arguments for the solution of a problem; ability not to take the information on trust without any verification; search of reasonable answers, which is the result of reflection and revelation of the unknown; arrangement of conditions for collaboration and partnership in the process of purposeful activity.

The technology consists of a few phases, namely:

- activation (of the material on the topic which students already know);
- comprehension (of the acquired information);
- reflection (selection of information).

Each of the foregoing phases of the technology of development of critical thinking includes basic techniques:

- phase1: a cluster, an individual "brainstorming", a group "brainstorming";
- phase 2: an insert (marking-up of information, marking-up of a text), reading with stops, crisscross discussion, arrangement of information in a logical order (I know, I want to know, I've got to know) the aim of which is systematization of knowledge on the topic;
- phase 3: a cluster ("informative cluster", method of graphic systematization of material), an essay, a cinquain (a poem of five lines, the aim of which is to synthesize and generalize information on the topic). Reflection is a quick method of summarization on the topic, method of summing up of the obtained information and giving an account of difficult ideas, feelings and notions in a few words.

Technology of development of critical thinking is the foundation for mastering of new types of activity. The subject of any new pedagogical technology is concrete co-operations of students and teachers in different types of activity, which are organized on the base of accurate structuring, systematization, programming, algorithmization, standardization of methods and techniques of teaching or educating, with introduction of computerization and technique facilities.

Conclusions. Thus, modern pedagogical technologies realize the syllabus and provide the achievement of the set didactic objectives in a new way, implying the scientific approaches to the organization of educational process in the institute of higher learning. They extend the range of educational services offered to students, change and provide new forms, methods and means of education. Use of modern pedagogical technologies is one of the most promising directions of the

development of higher education, which promote more profound individualization and intensification of educational process, shaping and self-actualization of the personality of a future specialist.

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