



Collective Learning Method

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ABSTRACT

In modern conditions of the development of education, when the goal of improving the quality of education is set for teachers, it is important to correctly direct the work of the methodological association of subject teachers.

In these conditions, the most important task of the system of post-secondary, higher, and postgraduate, additional professional education is mastering the methodology and theory of new didactics, built on the natural science (scientific) approach to teaching, and the technology of a collective method of learning (CLM), i.e. technology of mass and high-quality training and education according to ability. It is the teacher's living in this whole process that determines his technological literacy. In this regard, the purpose of our article is to reveal the main way of forming technological literacy of practitioners, mastering CLM technology, the technology of “teaching” a student, its application in teaching practice, which will allow “to include each student in communicative and cognitive activity.”

Keywords: technological literacy, learning methods, collective learning method, professional literacy, universal modes of activity, motivation, learning technologies.

INTRODUCTION

A wave of change has swept the planet in the field of education. Concepts such as “information age”, “knowledge economy”, “globalization”, “interconnected society”, “computerization”, “technologization”, etc. - have become necessary to determine policy in the field of education (Vershlovsky, 2002).

Let's turn to history. The theories of formal and material education have historically formed the scientific basis for the development of learning. Supporters of formal education (J. Locke, I. G. Pestalozzi, I. Kant, and others) adhered to the position of philosophical rationalism, where the source of knowledge is the reason.

It was assumed that the solution of the most important problems of education depends on how much the problem of the development of the mind of students is accentuated in teaching (meaning the manifestation of inclinations, abilities, talents, etc., inherent in genetics).

Supporters of material education (G. Spencer, J. Dewey, and others) relied on the philosophy of empiricism and pragmatism, and the tasks of education were associated with the mastery of the students in natural science knowledge, suitable, first of all, for practical activities (Kussainov, 2014).

Today, both of these theories not only have not lost their relevance, but they have also acquired great importance and are reflected in the process of improving the teacher's qualifications, in the mastering of innovative activities by the teacher.

At the same time, the modern scientific and technical process predetermined the development of the leading trend in education - the transition from information and cognitive (knowledge and educational) to cultural and historical (personal) pedagogy. Pedagogy, in which there is a place for the concept of "heredity", focus on the development of certain personality traits, the ability to master not only the knowledge competencies of education but also methods of activity that allow a person to act productively in a constantly changing environment; on the ability to make optimal choices in life situations, on the accumulation of some specific experience of personal self-organization. Under these conditions, the need to create specific pedagogical tools, teaching technologies, etc. begins to form, which makes it possible to strengthen the process of forming the experience of personal self-organization through a personality-oriented pedagogical situation (V.V. Serikov), in which the personality self-actualizes, self-organizes, and self-realizes, acquires self-management skills (Guzeev, 2002).

At present, it is obvious that the important aspects of the public and private life of a person are affected by education to such an extent that a reassessment of the educational system that has developed in the twentieth century is required. A different era has come, which is different from the previous one: another science, typical already for the 21st century, has appeared, another business, other skills, skills of a person's success in any professional activity. Children play different games, they have different access to information than the previous generation, they have different expectations of life, different views on circumstances. Pupil of the XXI century. differs from the student of the XX century. He's different. Another student must be able to teach *differently*.

Today, serious changes are taking place in subject teaching, in the means, methods of teaching, and, which is especially noteworthy, in the mastering of the methods of cognition by the student. Methods of creating images, models, analysis of situations are becoming priorities, and critical thinking becomes in demand (Abykanova et al., 2020; Derzkova, 2002).

The school is not keeping pace with the evolution of society. It lags due to the imperfection of the teacher's professional literacy. And, perhaps, in this regard, the credibility of the school falls, the authority of the teacher is undermined. Discipline and academic performance are deteriorating, and the attitude towards the priorities of the past is changing.

Undoubtedly, a generation of students ill-prepared for the needs of the new economy and new management will be a burden for social development. In this regard, even aggravations of the social order are inevitable.

The process of updating tutoring is being observed, i.e. selection of teachers who can "teach and complete". This phenomenon is widely recognized among parents and students. Tutoring gives a guaranteed result, but tutoring will never replace school education, since tutoring is local, aimed at eliminating the gaps in the student's knowledge and skills, and school teaching is always systematic since a certain system in teaching is being built. It is well known that all over the world there is a search for new forms of education, new approaches, and optimal teaching technologies.

To keep pace with the rapid change in society, schools today are forced to make a "big departure" from the traditional teaching model. Continuing to teach traditionally means deepening the existing dead-end position, continuing to teach only the motivated, the rest simply do not learn, although they come to school (Kolechenko, 2002; Selevko, 2006).

Russia and Kazakhstan are in a position to change their education system even since today much of this system is changing. The creation of a new education system is a difficult matter, and first of all, it is connected with a change in the technological literacy of the teacher. The basis of technological literacy is the obligatory knowledge of the teacher of didactics. By the author of modern, new didactics V.K. Dyachenko, technological literacy is described through the mastering by the teacher of CLM techniques are named, respectively, new and newest pedagogical technology (Dyachenko et al., 2018).

Let's consider them in more detail. New pedagogical technology - the organization of the educational process using the methods of cooperation "horizontally" in the context of traditional teaching, called the group way of teaching.

The essence of the new technology can be expressed in one phrase: each new topic (theoretical and practical parts), the student studies independently, but under the direct supervision of another student who has already worked on this topic, i.e. can provide immediate help. The benefits of this technology are mutual: the one who studies the topic initially learns to independently study new material while receiving timely, urgent advice from his fellow teacher, which contributes to a faster pace of progress through the material of the program.

The student, who at the same time turns out to be a teacher-consultant, in this way consolidates his knowledge on this topic while achieving better assimilation. For him, the role of a teacher-consultant is an active form of repetition and consolidation of new material, if we take a student of the same class, someone who has just studied

this topic. But this also has a positive meaning for those who studied this topic a year or two ago, i.e. for a high school student. High school students, acting in the role of teacher-consultants, get the opportunity to systematically repeat the material that was studied in the past or the year before last.

The newest pedagogical technology, in contrast to the new one, is the organization of the educational process using the methods of cooperation “vertically” in the conditions of CLM or the method of continuous transfer of knowledge (T.V. Yalovets).

Two versions of the technology of cooperation of students “vertically” have been developed (Krasnoyarsk and Langepassky), for example, following the Krasnoyarsk version, basic notes are prepared for each topic (chapter of the textbook). There can be 12-20 such supporting abstracts for the program (according to the textbook) of one year of study. The supporting notes are prepared by the teacher or they are given in the textbook (study guide).

The preparation of a pupil (student) on the first topic can take place in different ways (individually, with the help of a teacher, in pairs of a replacement team). This also applies to the preparation of subsequent topics of the program (Kussainov et al., 2020).

A deep modernization of the education system presupposes not only a change in teaching technology but also much more. But changing the technology of teaching is the most important task today. The speed in promoting technological changes in today's lesson depends on how conservative the teacher and the administrative staff of schools are in this matter.

In the existing mass pedagogical practice, the role of the teacher as a source of information is excessively exaggerated. Many additional sources can be included in the educational process. The place of the teacher in the pedagogical information and educational environment is determined by his participation in the process of digitalization of education, namely, through the composition of his main functions, such as:

- modeling of various sources of information of the natural “meta-environment” in the field of the taught subject;
- presentation of information meanings to students;
- the formation of the functional independence of the student in the assignment of universal methods of activity. In this case: the teacher is the organizer of information exchange between students and the holder of didactic relations in the context of specific teaching technologies;
- purposeful implementation of pedagogical functions to obtain a result (individual delta of changes), a product of training of each student.

With the use of these functions, we associate technological methods of didactic support for the student's independent consumption of information from various sources, processing (assimilation) of this information, and its application in practice. In this regard, the student masters general educational skills, methods of cognition and assimilation of information, general intellectual skills, mastering the technology of communicative mutual learning - CLM. It is in the educational process itself that the student technologically masters work in pairs, fixes this in subsequent pairs, in small groups, and ultimately begins to work individually, on his own. At the same time, the student gradually learns to manage his own educational and cognitive activities, “learns to learn”. The implementation of the above is possible only with a certain technological literacy, mastered by the teacher himself above, namely, methods, technology of a collective way of teaching.

Modern teaching technologies, claimed as an alternative to traditional teaching, sometimes exaggerate the functions of any one source of information. So, in problem learning, the main attention is paid to the organization of educational research.

Within the framework of “developmental learning”, mastering the subject is associated with the implementation of the deductive method of consuming semantic information (from general theoretical knowledge to specific phenomena) (Zhexenayeva et al., 2020).

In contrast to them, CLM technology is based on the consumption of information, both from the teacher and from other sources, based on the active work of schoolchildren with teaching materials - educational texts and the use of such a source of information as educational communications, including computer. This is confirmed by the received practice of CLM teachers. At the same time, the main link in the field of educational communications is the students themselves (and this is extremely important in the technology of teaching CLM).

The technology of “authorized learning” is largely based on the independent work of students with the funds of “ready-made” knowledge. The main source of information in design technology is educational research, mainly of applied orientation.

Traditional teaching is associated with exaggeration of the teacher's function as a source of information meanings. Mastering and practically applying these or those teaching technologies today, the teacher is forced to practically develop (constantly test in practice, in synthesis) various technologies of self-teaching of a student, including mastering CLM, and this is a serious contribution to pedagogical practice and pedagogical science.

In other words, today, more than ever, the issue of developing a teacher's pedagogical knowledge, his technological literacy is relevant - the ability to synthesize different teaching technologies in a meaningful and procedural manner, combine them, find ways of their organic interaction in a single pedagogical information and educational environment (Zhexenayeva et al., 2020; Kussainov et al., 2020).

Today in schools there is a pluralism of various technological teaching practices, an eclectic set of what the teacher is trying to include in the lesson. The vast majority of teachers lack deep systemic knowledge of leading teaching technologies. Sometimes a teacher tries to “create” something in a specific teaching technology without realizing its deep purpose. The real state of mastering technological literacy today is such that the quality of training future teachers and practicing teachers in many respects does not meet the needs of a modern school.

The overwhelming majority of practicing teachers, even at the cognitive level, do not have a clear, unambiguous, and meaningful understanding of pedagogical technologies. At the same time, the attitude of teachers to pedagogical technologies is formally characterized by pronounced positive motivation and a sufficient degree of consciousness. However, in school practice, the teacher continues to teach traditionally, introducing, in his words, “some elements” of different technologies. The existing insufficient psychological and pedagogical preparedness, the lack of the necessary innovative practice, and, of course, the lack of time for independent study of pedagogical literature lead to the fact that the teacher's positive attitude towards mastering technologies is not associated with a deep understanding and productive introduction of them into school practice. Hence, unfortunately, there is no expected change in the practice of teaching children.

The strategy of the technological approach in professional development is aimed today at mobilizing the potential for self-organization of learning, at penetrating this idea into the system of learning activities of the subjects of learning - teachers and students. Each of the subjects is called upon to play the role of “leading” in cognitive activity.

In this regard, the issue of building a subjective model of technological learning, which is based on the idea of reflection, becomes relevant.

Reflection, as defined by G.E. Koryavko, is a method of organizing the ideal activity of consciousness, the process of an individual's thinking about what is happening in his consciousness; a person's way of realizing his psychological activity, reflecting a rational understanding of his activity in learning.

Through reflection, self-awareness appears as a “living” instrument of self-organization of the individual. Reflection allows the teacher to implement a fundamental didactic principle, substantiated in domestic and foreign pedagogy, - the principle of conformity to nature in teaching.

Reflection is a “pedagogical universal” of technological learning, which predetermines the cultural integration of two technological systems: “learning knowledge” and “teaching thinking” (Koryavko, 1992).

“A well-organized brain costs more than a well-filled brain” (Michel Montaigne). The dialectic of this relationship is expressed in the works of K.D. Ushinsky, who emphasizes that one-sided enthusiasm for the task of developing the mind, as well as the task of acquiring ready-made useful knowledge, contradicts the laws of human development (Ushinsky, 1988).

Consequently, the main idea of the technological training of a teacher in the system of advanced training is essentially the process of building a model of self-organizing systems of reflexive interconnection between the teacher and the student as self-organizing systems functioning based on the trinity of generation, translation, and assimilation of knowledge.

The generation methodology is science (reliable knowledge in the form of concepts, theories, laws). The broadcasting technique is represented by the subject's educational activity (reflection of activity is the framework of personality self-development). The assimilation technique acts as a culture (social, professional, educational) (Abykanova et al., 2020; Vasilyeva, 2019).

In improving the qualifications of a teacher in conditions of innovation and manufacturability, one should distinguish between the main levels of his professional competence:

- Theoretical - knowledge of the scientific foundations of pedagogical activity.
- Technological - the ability to carry out practical activities.
- Functional - the ability to maintain professional qualities of activity under the influence of destabilizing factors.

At the same time, the quality of activity is mainly determined by the degree of development of the forms and content of self-organization of human intelligence, its transition to appropriate educational technologies, focused not only on the development of educational material but also on the system of methods, techniques, methods of educational activity.

More than ever today, there is a need for a holistic teacher training program in teaching technologies, a specially developed content for teacher training in mastering professional technological literacy. And this is confirmed by the existing practice of training a teacher using CLM technology.

It makes sense, on the one hand, to separate new and latest technologies, and on the other hand, to link them with the methodology of teaching the subject, leading to guaranteed learning outcomes (Abykanova et al., 2020; Tulenova et al., 2020; Abykanova et al., 2021).

The above can be resolved in the system of post-secondary, higher and postgraduate, additional professional education, in the system of coursework of teachers with the active participation in this of the administrative level of the educational institution, education departments and, of course, the motivation of the teacher himself, his desire to change the existing traditional system of education in school.

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