Educational Diagnosis in Modern Education: 
A Systems Approach to Cognitive-Converting Activity Teacher

Gulmira Saudabayeva, Gulmira Alnazarova and Maira Aitbayeva

1Abai Kazakh National Pedagogical University Kazakhstan, 140000, Almaty, Dostyk av., 13.
2Korkyt Ata Kyzylorda State University Kazakhstan, 120014, Kyzylorda, Aiteke Bi av., 29A

Abstract: Currently there is a trend in pedagogy greater attention to the problems of educational assessment, evaluation of various aspects of achievements and competence of students, identify and record their individuality. This is evidenced by the scientific debate, research and publications, the practice of educational institutions. At the same time, the dynamic processes in the development of education, in particular, related to the implementation of state educational standards, competence-based approach, the Bologna Process. As the studies performed, to ensure the integrity of diagnostic activity teacher, effective implementation of educational assessment in an educational institution, it should be considered and carried out using a systematic approach, as a system of interrelated or interacting elements.

Key words: Diagnostics · Practice · Innovation Systems · Preliminary Analysis · Comparative Analysis

INTRODUCTION

In teaching practice often use the term "verification" and "control" is similar in its content. Checks should be understood as the identification, measurement process state. Therefore, in teaching activity test should mean identifying and measuring the state of training and education. Verification should identify the level of knowledge and skills the student, including: level of proficiency in philosophical, moral and aesthetic ideas; level of memory, speech and logical thinking; the degree of formation of will and perseverance; level positive attitude towards school work taking into account its features.

Checking merely states the results, while not identified the causes and evaluates the condition. Control is understood as the set of testing and evaluation, control includes the identification, measurement and assessment of knowledge and skills student. Thus, control is a broader concept than verification. We can distinguish the following basic control functions:

- Control function is to identify the true level of knowledge and skills, as well as in his estimation;
- Training of features aimed at the educational aspect (reinforcement of knowledge and skills);
- Educate function aimed at stimulating teaching, on the development of cognitive interests;
- Educational feature emphasizes the role of control as a means of developing the individual student;

Organizational function implements a monitoring role in the organization of student behavior and attitudes to learning [1].

It is important that the teacher did not use the control as a punishment. Monitoring should be open, clear, must disclose to each student achieve his or omissions. Even low control results should not have negative consequences for the student. In this case, the student himself is interested in monitoring.

Taken to distinguish between methods of oral, written, practical and machine control. As a special type of control can be considered self-conducted by the student. When self-control have been used successfully controlling the machine [2].

Corresponding Author: Gulmira Saudabayeva, Abai Kazakh National Pedagogical University Kazakhstan, 140000, Almaty, Dostyk av., 13.
The most important method of control is the oral recitation. In this case the teacher's questions should have a content that will encourage students to think and respond, provide the ability to check the level of learning. In practice, the following modifications of oral questioning: wheel poll, when questions are asked for all, then listened individual responses; compacted poll when one student responds verbally, other students (all students or part thereof) perform a writing assignment, the appointed score that exhibited with taking into account the student's activity in the discussion of educational material in general for all his additions, answers, etc.

The Practical Control System: Practical control aims to identify the level of formation of practical skills as well as motor skills. This may be used for laboratory and practical operation.

Computer control involves the use of controlling machines. When this is easy enough to establish common requirements for monitoring and evaluation of students' knowledge, facilitated by statistical processing of control. Computer control allows you to save time, teachers and students, eliminating the voluntary or involuntary teacher subjectivity [3].

Use of different methods of control depends on the goals and objectives. In other words, the control method should be selected in accordance with the tasks that the teacher is going to solve this process.

In many post-Soviet states has received fairly widespread test control. Tests are designed to measure and assess any indication, represent a form of control. Depending on the order in which field measurements are usually distinguished tests pedagogical, psychological, sociological, cultural, etc. Tests at school are used to measure and assess the level of mastering certain amount of knowledge and skills [4]. They represent a kind of standard test tasks, standardized procedures for conducting, as well as a predetermined processing technology and analyze the results.

Classification tests can be carried out on various formed by personal qualities. In this case stand out tests: general mental ability, mental development and special abilities in different areas, training, performance and academic achievement; tests to identify individual abilities (memory, thinking, etc.) tests to determine the level of education, of formation of human, moral, social, etc. personality traits [5].

The Test Control Technique: Test control method has several advantages over traditional methods. First of all, testing eliminates the influence of subjective factors on the assessment of student's knowledge does not affect the relationship "teacher-student", nor the level of rigor particular teacher and many other factors. Testing creates the possibility of using a more differentiated system (scale) ratings. This contributes to a more accurate assessment of learning outcomes. Testing can be carried out simultaneously with a large number of students. Processing of the results does not require much time and effort, because processing is only a simple comparison with the numbers of answers prepared in advance table [6].

At the same time, the method of testing often leads to well-founded criticism from education practitioners. When a test is not possible to identify the depth of control and logic thinking, creative application of knowledge learned in a new situation. There is also the likelihood of accidents when answering student place solid knowledge can take a simple guessing. Testing eliminates the practice of communication and verbal speech [7]. At the same time, we know that it is interpersonal communication and speech underlie the development of cognitive abilities of the individual. According to some researchers, most of the tests allow us to speak about the academic achievements of a person not more than 4 % of the possible.

In addition, the test items themselves can not fully replace other controls in its content. Can be created by such a system of tests that show conflicting-other results in the study of knowledge of the same student [8].

Thus, it should be considered to reduce the inappropriate control student in the educational process in the ground and only for testing. Testing can be an additional form of control, contributing to the refinement of certain results obtained using other methods of control. In particular, this statement refers to the academic disciplines humanities.

Organization of any activity should be based on information about the state of objects and actors involved. Without such information it is impossible to organize the effective work to identify ways to further movement. To identify human health in medicine is commonly used term "diagnosis" [9]. This term is borrowed and adopted in pedagogy. In instructional diagnosis is associated with all the circumstances of occurrence of didactic process, with a precise definition
Diagnosing didactics (didactic diagnosis) involves the identification, evaluation and analysis of the course of the educational process, ways, methods, progress towards goals, development dynamics and trends of further movement. In other words, this is a diagnosis of educational work of the teacher, an assessment of its effectiveness.

Hence, diagnosis includes accumulation of statistical data (checking), their analysis, evaluation (control) and identify trends for future development (forecasting). Consequently, the diagnosis-is a broader concept than verification and control, as it consists of monitoring and forecasting.

Enhanced role in the diagnosis evaluation as a means of encouraging learning. In the results of the diagnosis can be used value judgments (points) that contribute to the self-determination of the individual. It also creates the possibility of a rational definition of personal rating schoolboy, indicator of its significance, the weight in a given society.

Control as an Essential Component of Diagnosis:
Monitoring is an essential component of diagnosis. However, the attitude of researchers and practitioners to this component is not unique, it varies widely from complete denial of its need to give the absolute value of audit, evaluation methods and their implementation. At the same time, practice teaching activities shows that monitoring is an essential element of the learning process.

In instructional diagnosis can be carried out efficiency of the learning process and its quality. Diagnosing efficiency aimed at monitoring and evaluation of the teaching process, the quality of diagnosis-its results [10].

When the diagnosis is accepted to use certain systems of criteria and indicators. Indicator-this is one of the qualitative or quantitative criterion components. Criterion is a generalized description of the state of an object or a process. In pedagogical diagnosis made using the following criteria: Education, learning, education of schoolchildren, the effectiveness of education management.

Diagnosis Should Be Made with the Following Basic Principles: The principle of objectivity. Contents diagnostic tasks and questions should be scientifically justified. Themselves diagnostic procedures also must be justified and adequate evaluation criteria established knowledge and skills. Essential requirement of the principle of objectivity is that the exhibited mark should not depend on the methods and means of control, as well as diagnosing teachers. In other words, the replacement methods, teachers, etc. must be obtained the same results of diagnosis [11].

Systematic principle. Diagnosis should be made at all stages of the didactic process-from the initial perception of knowledge and their practical application. Regular diagnosis expose all students from the first day to the last training. In this case it is advisable to apply a variety of forms, methods and tools in their entirety and unity. It is known that the use of only one kind of element can give a "fail", which lead to an incorrect evaluation of results.

The principle of clarity (transparency). The implementation of this principle is based on the following requirements: to prevent covert tests, all tests must be open (public) test all subjects by the same criteria, timely announcement of the results of the diagnostic cutoff, publicly announced and motivate, justify assessment; discussion and analysis of results of diagnosing conduct with stakeholders; considering the data be real long-term plans for further work aimed at improving the educational performance of students.

The principle of individuation and differentiation diagnosis requires that the procedure gave information about private educational-cognitive activity of each student based on his personal qualities [12].

Diagnosis of training to determine student progress, attainment of knowledge. Her adopted to calculate the percentage as a result of (indicator) assimilation, productivity training. At the same time this result expressed as the ratio of the actual volume of learned knowledge and skills to the norm (to the fullest extent of knowledge and skills that should have been learned).

CONCLUSION

Informed of training for diagnosing student learning needs to know. Learning ability-the ability (fitness, suppleness, susceptibility, learning ability, potential, etc.) specify the student to master the content of learning. Learner describes the ability of the individual to realize and develop their potentialities in the course of purposeful activity in the formal educational process, as well as in the process of communicating with other people.
Essential components of learning are the following elements:

- Potential student. These include individual characteristics (personality): susceptibility, ability to learn, a willingness to mental work, the success of cognitive activity, etc.
- Fund effective knowledge, which includes the Maturity of mental activities, breadth of knowledge, general knowledge, language development, the level of learning and skills, etc.
- Generalization of thinking (thinking process), which is responsible for the quality (depth and efficiency) teaching and learning process.

Increase training opportunities in the special characteristics of thinking (strength, flexibility, autonomy, efficiency, etc.).

The pace of progress in learning (acquisition of knowledge). This component is defined as all the previous ones, so is derived from the others, all of which affect the rate. This-the defining characteristic of learning, as entire savings in training is to increase the rate at the same level of time and effort of both participants of the learning process.

REFERENCES