

Criteria for the Educational Process in the Assimilation of Students' Knowledge

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Abstract: In this study, we examine one measure of the effectiveness of the educational process which consists in studying the assimilation of knowledge and the necessary parameters to the required level of operating them. The description of levels of knowledge which is the basis of allocation of teaching purposes, followed by knowledge assessment based on these levels. Evaluation of knowledge is seen as a systematic process. It presents a taxonomy of learning objectives bloom as an example of the classification of learning objectives for the stages of assimilation. The specificity of evaluation of knowledge in vocational training of adults.

Key words: Educational process, performance criteria, assimilation of knowledge, a complex approach, the purpose of training, professional education

INTRODUCTION

Analysis of the performance criteria of vocational training to do better implement in the context of wider issues of efficiency of educational process. Efficacy is the correspondence of the results previously set goals. Depending on the selected performance, parameters will change the criteria for the effectiveness of the educational process.

In analysis of the effectiveness of the educational process, it is important to note that training is a complex ratio of several activities (Gaisin *et al.*, 2014). Education is a purposeful process of interaction of the teacher (teachers) and students. The training is the assimilation and mastery of their students' ways of further self-knowledge acquisition, development of personality of students.

MATERIALS AND METHODS

The study used theoretical and empirical methods: study and analysis of methodological literature on the effectiveness of the educational process; define the criteria for the success of the activities of teaching and learning, performance criteria of holistic learning process.

Theory: The effectiveness of the educational process depends on the success of several activities:

- Teacher activity (teaching)
- Activities of students (learning)
- Their joint activities (training)

Each of these activities has its purpose, its content, structure, results and success criteria. The learning

process is not a mechanical sum of the processes of teaching and learning, this is a qualitatively new holistic phenomenon, it presupposes the existence of common goals and outcomes of teaching and learning (Benjamin *et al.*, 1971) Consequently, the performance criteria of the educational process is a complex ratio of performance criteria of teaching, learning, training (Table 1).

The effectiveness of the educational process depends on these components influence each other. The choice of criteria (parameters) of the effectiveness of teaching, learning, training is dependent on the social order of society, specific professional position of the teacher, etc. The driving forces of the educational process may be a contradiction between the processes of teaching, learning and training which arise from time to time differences:

- Between the demands of society and the state of the process of teaching and learning at the moment
- In the discrepancy between the condition of teaching needs of students in mastering the knowledge requirements of the teacher and the students' abilities
- Actively oppose each other different members of the educational process from a mismatch of goals and others (Marzano, 2005)

The effectiveness of the educational process is achieved by maintaining a balance between a flexible overcoming these contradictions and yet their actualization at a new stage and level in the course of modernization and improvement of the educational process.

Table 1: Performance criteria of the educational process

Criteria for the success of the teaching activities	Criteria for the success of the learning activities	Criteria for the effectiveness of the whole process of training
Transfer to students of social experience accumulated by previous generations (knowledge, skills, methods, different activities, moral values and attitudes)	Studying the assimilation of new knowledge (skills, experience)	Familiarizing students to the social experience (in the form of knowledge, ways of life, the system of moral values)
Transfer students from ignorance to knowledge and from the state of untrained in-state tuition, The development of a new quality of students learning and socially important qualities of the person, etc.	Methods of acquisition, ways of learning activities	Formation of student training aids as an active subject and personality, ready for full-fledged social activities to meet the requirements of modern society, using their own individual creative contributions and others
	Mastery of the subject of vigorous activity, ability to understand, plan (goal-setting), adjust their teaching and cognitive activity, to carry out self (Anderson <i>et al.</i> , 2001)	

Table 2: Taxonomy of learning objectives

Learning objectives	Stages of assimilation
Knowledge specific material terms facts methods and means circulation from specific material, definitions, trends and results of notions and categories to criteria and methodologies universal concepts and abstractions art knowledge of laws and generalizations, theories and structures	This level considered as learning, memory and reproduction information
Understanding (given material)-more high-level assimilation than simple knowledge. It composed at ability understand main meaning text	The student explains, shows interpreted (verbal material, diagrams, graphs), reveals the cause and effect relationship, it extrapolates
Application (rules, methods, general ideas, concepts, principles, theories) in specific circumstances and new situations	The student uses the concepts and principles in the new conditions, the law of the theory in specific practical situations
Analysis (elements relationships, principles of construction), separation information on part distinction facts and consequences	The student, ponders disclose, lists, discusses, compares
The synthesis of the elements of information from different sources and creating on this basis a new model, the creative processing of the information to develop a plan of action and the possible creation of a new whole, obtaining a system of abstract relations	The student is, combines, creates
Evaluation (judgment on basis available data or external criteria), the possibility of judge the value of ideas, methods, material, when set goals, standards, criteria	The student discusses, evaluates conformity output available data, estimates significance Togo or other product activities proceeding of internal and external criteria

An integrated approach to assessing the level of learning involves the analysis and consideration of lessons studying types of knowledge and stages of their assimilation, quality of knowledge as well as identify ways to identify knowledge (types of control knowledge), methods of assessment (kinds of scales), etc. An integrated approach to assessing the level of assimilation provides an objective assessment which is possible only when the correlation of the knowledge gained from the pre-planned knowledge laid down for training.

Evaluation of knowledge is seen as a systematic process which is determine the degree of compliance with existing knowledge and skills previously planiruemym (Kamahina *et al.*, 2015). Planning for educational purposes is a necessary condition assessment as it could not be judged on results.

The analysis begins with learning objectives determine the kinds of knowledge. The didactics of the following types of knowledge are:

- Concepts and terms
- Knowledge of the facts
- Knowledge of the laws as a link within a relatively limited set of phenomena
- Knowledge of the theories as a link within a broader set of phenomena
- Knowledge of methods and ways of learning activities

This knowledge is the basis, the foundation of all knowledge it reflect reality. Terms and concepts used to refer to any kind of objects or body of knowledge-is the language in which the embodied knowledge. Laws reflect the totality of the facts Communications Limited (objects) and theories include a significant set of facts make it possible to generalize the class of specific phenomena. Methodological knowledge (on methods of process and the history of knowledge about the methods of activity) identifying ways of obtaining and application of knowledge. Evaluation knowledge standards characterize the relationship to some obektam (Anderson *et al.*, 2001). These are the ideas of the kinds of knowledge that must be considered in their assessment.

The next step in the implementation of a comprehensive approach to the assimilation of knowledge is to define the stages of learning. A good example of the classification of learning objectives for the stages of assimilation is a taxonomy of learning objectives by Bloom (1956) (Table 2).

This description of the stages of levels of learning lies in the basis of allocation of educational objectives and the subsequent assessment of knowledge based on these levels. This classification of learning objectives can be the basis for the hierarchy of the final and intermediate objectives of education. In modern conditions, student-centered learning, it requires the expansion and refinement (Vlasov, 2008).

Bespalko allocates levels setting learning goals (goal formation), noting that the purpose of teaching in the system should be put diagnosticity, so accurately and clearly, so that you can clearly draw a conclusion about the extent of its realization.

If the starting point for knowledge assessment is to determine the training objectives, the basis for the choice of the learning objectives is the disclosure of the quality of knowledge (Polonsky). In domestic didactics (Kraevsky, Lerner, Skatkin) some systematization of knowledge quality. It is the fullness and depth of knowledge, systematic and system knowledge, efficiency and flexibility of knowledge, specificity and generality of knowledge collapse or expand knowledge and awareness of the knowledge, strength, knowledge.

RESULTS AND DISCUSSION

The professional training of adult learners evaluation of knowledge has its own specifics. It consists in the fact that as the stages of learning (remembering, understanding, application, evaluation) and the quality of knowledge (depth, speed, awareness, generalization and others.) Are closely related to the nature of the professional activity. Professional practice is very different for different listeners, so important to the teacher during the lesson to distinguish the invariant part of the knowledge (must possess all the listeners) and divergent views and forms of knowledge other than the listeners (linked with their personal experience). Invariance are professional knowledge (knowledge on how to achieve high levels of professionalism in the profession). The acquisition of invariant knowledge can be evaluated (for a sufficiently large volume of course) on an absolute scale (scores, marks, points). The acquisition of professional knowledge from personal experience, it is better to evaluate the relative cycles and based on the individual relative to the norm, it allows you to fix the advancement of the student in the logic of assimilation of its professional tasks (Vlasov, 2008). The effectiveness of the educational process made up of the ratio of success criteria activities of teaching, learning, training. Integral indicators of the effectiveness of the learning process can be considered to ensure assimilation by students of social experience (knowledge, ways of life, moral values) and the development of teaching aids the individual in today's rapidly changing world (Samigullina *et al.*, 2014).

An integrated approach to the assessment of knowledge of students is that in estimating the different parameters allocated knowledge (types of knowledge and stages of learning, the quality of knowledge). This level is evaluated by comparing their status, scheduled for training and after the training received (Vlasov, 2008). Learning objectives can be defined:

- Through the kinds of knowledge (knowledge of the terms, knowledge of the laws, knowledge about the methods of activity)
- Through the stages of digestion (remembering, understanding, application)
- Through knowledge quality (depth, fullness, awareness, efficiency)

CONCLUSION

Evaluation of knowledge is dependent on their compliance with the pre-planned learning objectives. Same learning objectives are built taking into account the social order of the required quality of knowledge needed to man the modern world with the specific social conditions of the society in which he lives.

These overall approaches analysis of knowledge can be applied to the evaluation of the effectiveness of vocational training. The specificity of the analysis of learning in these conditions can be. The allocation of the main types of professional knowledge (key concepts, knowledge of the terms of the laws governing). Determination of the stages of assimilation to which must be reported or that professional knowledge (knowledge applied to the phase of the plan). The quality of the knowledge that it is desirable to work (for example, flexibility and operational knowledge to apply them to new professional situations, awareness of knowledge for reflection in the profession). Incorporated into the curriculum as the objectives of professional knowledge these parameters can be one of the criteria for the effectiveness of vocational training.

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