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Methodological conditions of implementation of educational progress monitoring in the process of future land surveyors professional training

Actuality of studying the problem of methodological support of educational progress monitoring of future land surveyors in the process of professional training is determined by the increasing needs of educational theory and practice in the development of unified effective mechanisms and tools for measuring the quality of professional training of future specialists. One of the instruments designed to solve the problem is the pedagogical monitoring, the role of which is constantly increasing in the educational process of different levels of education.

The problem of studying the methods and conditions of monitoring of students educational achievements featured in the papers written by E.V. Bucenko [Буценко, *Применение...*], S.S. Ermakovoуi [Єрмакова, *Концептуальні...*], L.P. Korobovych [Коробович, *Забезпечення...*], N.E. Levintovoyi [Левинтова, *Современные...*] and others.

In these works is presented the nature and content of monitoring as educational technology but not characterized the conditions its use in the training of future specialists. Therefore, **the purpose** of this article is to analyze the scientific literature on the content of the monitoring of student learning achievement and the allocation and justification of methodological conditions of its use in the training of future land surveyors.

The main text. The essence of monitoring of educational progress of future land surveyors consists in tracking the regular results of the training of future specialists to identify the level of its compliance with educational purpose and expected results. Thus, the pedagogical nature and significance of monitoring consists in an efficient process of professional training by studying the results teaching and educational activities of students during the period of their study (studying specific subjects).

The advantage of monitoring is the ability to unite the efforts of various actors to ensure a holistic understanding of the level of educational achievement of future professional. The effectiveness of the management of pedagogical processes and phenomena is determined not so much on fixed results of educational progress, but on the analysis of the causes of their incompliance to the task of

training and finding reserves efficiency of the educational process and the quality of student knowledge [Буценко, *Применение...*]. Thus, the introduction of monitoring allows you to monitor various factors that affect on the results of professional training of future land surveyors: the content of courses, curriculum content, methods of organizing of classroom lessons, implementing of educational programs and electives for students' interests etc. That is, monitoring academic progress as a specially organized and permanent system of statistical reporting provides adaptability tracking quality of professional training of future land surveyors.

Hence follows the first methodical condition monitoring of educational student achievement: *providing technological monitoring activities*. The technological goals of methods of monitoring the educational success for future land surveyors are: continuous and systematic tracking of the results of the professional preparation of future land surveyors to improve and correct educational and methodological support of teaching the special subjects.

It should also describe the key forecasted difficulties of introduction of monitoring of educational progress: the need for a dedicated and competent staff that will monitor; sufficient information and technical support for monitoring; interest subjects of monitoring in depth analysis of the results of educational success etc. Thus, the following methodological condition for monitoring of educational progress of future land surveyors are: *direction of monitoring activity subjects on effective monitoring results*.

According to the previously formulated methodical requirements raises the question about the result of students professional training – what exactly to track on the monitoring and what exactly can be considered as a result of the educational process.

The paper presents [<http://dop-obrazovanie.com/dlya-pedagogov/metod-kabinet/monitiringi/112-monitoring-uspevaemosti>] the following main directions and results of the teaching monitoring depending on the subjects of educational space:

- students – knowledge, abilities, skills, values of personal growth, creative activity assessment;
- lecturers – professionalism, competence, attitude to work and its results, rating among students and colleagues;
- educational institution – accordance with regulations, the prestige, the demand.

The interest of our pedagogical research clearly defines the scope directional monitoring – results of educational success of future land surveyors. Therefore, in our opinion, deserves attention such classification of professional training results:

- quantitative results (absolute performance, knowledge quality, class attendance, save of the contingent, rate of applying for the job after finishing of high school);

- quality (qualimetric) results which are formulated descriptively and relate with certain point scale (level of knowledge, skills and abilities, readiness for the profession, the level of educational/professional adaptation, the level of competence, etc.);
- implicit (internal) results concerning the student's personality, measured by of psychological diagnostics and can determine the results of educational achievement (level of frustration, motivation, willpower, etc.).

Implementation of monitoring in the process of professional training the future land surveyors is also characterized by accepted criterion agreed system of evaluation of educational achievements of students that defined by the presence of educational standards and strict criteria and quality indicators of professional education in general and the success on individual academic disciplines in particular. Absence of specified criteria system and indicators will set high subjective marks of knowledge, skills and abilities of students by lecturers that would violate the didactic principle of universality of educational requirements. That is the basic methodological condition for implementation of monitoring the educational progress is the *development based on educational standards a single system of criteria and indicators of educational progress*.

Implementation the described requirements is complicated by psychological factors assessment success of students in education when assessment of quality of mastering the academic subjects unconsciously tied by scientific and teaching staff to student's personality when „success rate indicator is replaced by personal success” of the student [Левинтова, *Современные...*]. That is the relationship between the level of professional knowledge, skills, competencies of the student and level of his personal growth (responsibility, activity, independence etc.) in the process of training is not straightforward and determined only educative Area of Higher School. Accordingly, on monitoring of students success in education to take into account all factors of training quality in the monitoring process, in our opinion, it is necessary the *introducing additional variables for future professional growth land surveyors – participation in student government, community activities, research activities etc.*

Solving these problems of objective evaluating the quality of professional training of future land surveyors much of the researchers imposes on the use of information technologies – computer testing, online testing etc. forms the basis impartial assessment of knowledge and skills of future professionals. Limitations of Testing Information shells in the system of professional training (as opposed to school education) determined a significant range of specialties and specializations in higher education, conditionality of profile of professional educational institutions (eg pedagogical, agricultural, transport etc.), and the lack of unified standards and programs. In this situation, the system of training of the content of information computer technology mainly relies on the teacher of the academic discipline that does not have sufficient competence for the

development of computer testing system on the level and the quality of knowledge of future professionals.

Accordingly the following methodological requirement for monitoring of knowledge of professional training is *development and use of standardized information membranes (computer programs) for objective measurement of quality of student knowledge*.

However, in the work of E.V. Butsenko [Буценко, *Применение...*] identified the advantages and disadvantages of modern computerized methods of testing students' educational achievements. As main deficiencies author chosen:

- difficulty in formulation of separate components of knowledge in the test form;
- low possibility of checking the creative potential of students;
- high requirements for teaching, research, professional skills of teachers.

Moreover, among the main advantages of using computer technologies to monitor the academic performance of future specialists identified:

- immutability of testing conditions;
- accuracy and certainty of the registration of set of answers of students;
- able to recover and trace the sequence of actions student;
- ease of formation of a data bank and empirical justification test standards;
- possibility of automated test design and combining them into variants;
- ergonomics of teaching activities during the evaluation and treatment of the results;
- minimize the interpersonal impacts and negative interactions in the evaluation process.

One of the methodological problems of monitoring educational achievement of future professionals is to identify and analyze the level of mastering different types of learning tasks. Conducting collection and analysis of monitoring data on the results of each lesson allows to the teacher to diagnose the level and share of mastering by students the content of educational lessons both individually and as a whole for the training group. Thus, the following methodological condition for the application of monitoring educational achievements are *collection of data to establish the effectiveness of different forms, methods, organization tools of educational process and correction of the process of professional training to achieve the high as possible quality of professional training of surveyors*.

The next important methodological condition for monitoring determined through *continuous familiarize students with the results of monitoring of educational success*. Implementation of this condition will allow to ensure the reflection and introspection students about their level of ownership of certain knowledge, skills, abilities for future professional activities; promote the development of conscious motivational orientation on mastery of specific disciplines, themes, tasks.

Conclusions

The conducted analysis of the theory and practice of monitoring implementation of educational success in the process of professional training future specialists allowed to provide basic methodological conditions: providing manufacturability of monitoring activities; orientation subjects of activity of the monitoring to effective monitoring results; production on the basis of educational standards unified system of criteria and indicators of educational success; introducing additional variables of professional growth future land surveyors – participation in student government, community activities, research activities etc.; development and use of standardized information membranes (computer programs) for objectively measure the quality of student learning; collection of data to establish the effectiveness of different forms, methods, organization tools of educational process and correction the process of professional training to achieve the high as possible quality professional training of land surveyors; permanent familiarize students with the results of monitoring of educational success.

Presented a set of conditions covering different areas implementation monitoring of educational success of future land surveyors: subject-subject (deanery, teacher, student); didactic (the use of computers, taking into account the role of upbringing, pedagogical correction); organization (technological, criteria provision). Accordingly, the implementation of the described system of conditions will allow to provide the principles of comprehensiveness and systematic of pedagogical influence.

Prospects for further researches is sees in designing criterion-exponential measurement system of educational success for future land surveyors on the basis of state standards professional training of specialists and in development of phases and algorithm for monitoring of educational success of future land surveyors.

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Abstract

The paper analyzed the essence of monitoring learning achievement of students as educational technology; based on analysis selected and justified methodological conditions of implementation of monitoring learning achievement in process of professional training of future land surveyors.

Key words: teaching process, vocational training, process of professional training.