

DEVELOPMENT AND IMPLEMENTATION OF THE TECHNOLOGY OF MONITORING EFFICIENCY OF INCREASING THE QUALIFICATION OF PEDAGOGICAL STAFF OF VSSO

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ABSTRACT

This article discusses the development and implementation of monitoring technology to ensure the effectiveness of continuing education of teachers of secondary vocational education. A set of monitoring procedures for tracking the process of continuing education in an educational institution is presented, the content of the technological process for monitoring the effectiveness of continuing education of teachers.

Keywords: Monitoring, monitoring technology, monitoring stages, monitoring program, teaching staff, advanced training, monitoring indicators, analytical table, expert assessment.

INTRODUCTION

Currently, the education system in Uzbekistan is being modernized, the requirements for educational organizations are increasing: the quality of education is growing, modern information and pedagogical technologies are being implemented, new educational standards and requirements are being introduced. High demands are placed on teachers, as the main subjects of the educational process. Today, there is a need to find answers to pressing questions concerning the professional development of teaching staff, its structure, content, technology and assessment of the quality of teacher training and education in general. The solution of the problems posed by the state and society to educational institutions depends on the educational level, qualifications, skill, competence, professionalism of teachers. Therefore, the question of assessing the level of professional development of a teacher in an educational institution is becoming more and more urgent. There was a need to help teachers see their own results and successes, identify problems and find competent ways to solve them. The solution to this problem is impossible without the development of a monitoring system for the professional activities of teaching staff.

The relevance of the study is due to the objective need to ensure the effectiveness of advanced training of highly qualified teaching staff, ready for professional growth, with a high level of professional skill, mobility and creative activity.

An important role here is assigned to monitoring, which is the most important tool for checking and evaluating the effectiveness of both the content of advanced training and the methods and technologies used for its assimilation. Based on the results obtained, recommendations are made to eliminate the existing shortcomings in the educational process and to effectively manage the professional growth of teaching staff.

One of the directions of methodological research in modern pedagogical science is the technological approach, which is defined as a necessary stage of knowledge and action in the organization of the educational process. Its means are used to transfer from the analysis of the functioning of elements of pedagogical systems to the design of processes, their regulation and

management. In a general sense, technology is seen as a way of organizing activities to achieve a set goal.

Research conducted by V.M. Goncharenko, D.Zhavoronkov, L.P. Kachalova, A.I.Kuprina, L.D. Nazarova, S.N. Silina, S.L. Fomenko, significantly increased the theoretical level of development of monitoring technologies and their practical importance in educational activities.

Based on the research of V.Ya. Nechaev, who identified two meanings of the concept of "technology": (1) a really operating process, formed in a certain sequence of procedures using technological, organizational and informational means, which are aimed at obtaining a repeated result; (2) a specific document, a project describing and regulating the procedure for actions, setting standards, infrastructure standards (in this sense, technology is a normative model. - K.A.) [15. P. 124], in our research we present our own definition of the concept "technology for monitoring the effectiveness of the process of improving the qualifications of teachers." It:

- process, which is a certain sequence of actions and procedures using organizational and informational methods and means, allowing to quickly monitor the effectiveness of the professional development process;
- a document regulating the order of actions of the subjects of monitoring, methods and means of control and evaluation of standardized parameters of the effectiveness of the professional development process.

According to V.G. Gorb, the technology of pedagogical monitoring consists of two components: experimental-search and constructive-organizational. The first reflects the theoretical rationale, practical implementation and evidence of the pedagogical significance or effectiveness of the main monitoring procedures. The name of the stages (preparatory, adaptation, initial diagnostic, content-technological, final-diagnostic) technologies and their main tasks should correspond to the general scientific requirements for conducting experimental search work in the humanitarian field of knowledge.

The constructive and organizational component ensures the implementation of pedagogically significant and effective monitoring procedures in the practice of educational activities. [11. S.10-13].

Material and research methods

The researcher identifies the following stages of the constructive and organizational component: normative, organizational, scientific and methodological.

At the first (normative) stage, provisions and instructions are developed for the implementation of pedagogical monitoring and assessment in the educational process. These documents are submitted for discussion by the Academic Council of the educational institution and, if adopted, become mandatory for all participants in educational activities in the educational institution.

The main goal of the organizational stage is to ensure the implementation of the adopted normative documents, which requires the redistribution of functions between the structural units of the educational institution and, on this basis, making changes and clarifications to their work plans.

At the scientific and methodological stage, conferences are held at which scientifically substantiated results are discussed, recommendations for improving the educational process are developed. [11. Pp. 13-14].

We are impressed by the approach proposed by L.V. Golish to the consideration of pedagogical monitoring as a technological process. According to the author's concept, it consists of the

following stages: preparatory, executive and generalizing [9. P.8-9]. Based on the content of the technological stages of pedagogical monitoring substantiated by the author, we have developed a set of monitoring procedures for tracking the process of advanced training in an educational institution:

1. Preparatory stage
 - 1.1. Objects of monitoring are determined.
 - 1.2. Objectives and expected end results of tracking (control, study, research) of monitoring objects are clearly formulated, since the content of subsequent actions depends on this.
 - 1.3. Parameters, indicators and criteria for evaluating the monitoring object are determined.
 - 1.4. The choice of monitoring tools is carried out: methods and means of collecting and processing information.
 - 1.5. The chronological framework (terms) of measurements and the frequency of measurements are established.
 - 1.6. Executors are appointed: those who will collect and process information.
 - 1.7. The users of the information received are determined.
 - 1.8. A comprehensive monitoring program and a schedule for its implementation are being developed.

Research results and discussion

Where possible, a computer program to provide monitoring is also being developed. The widespread use of information technology will ensure:

- almost constant or at least regular observation of the monitored object;
- saving time - the most scarce resource;
- accumulation, operational processing and analysis of a large amount of information.

2. The executive stage.

2.1. The collection and registration of data is carried out using the selected methods and monitoring tools.

2.2. Operational quantitative and qualitative processing of the results is being carried out.

3. Final analytical stage.

3.1. Information is generalized and systematized.

3.2. A database is created based on the results of all measurements.

3.3. The dynamics and trends of the state of the monitoring object are revealed.

3.4. The causal relationships that determine the state of the system (process) of professional development are established and analyzed.

3.5. The system of professional development as a whole and the carried out (including pedagogical) actions, in particular, are assessed.

3.6. Real achievements are being specified.

The purpose of the data obtained is to ensure the adoption of an optimal strategic or tactical decision, which may be related to and / or:

- with clarification and, if necessary, amendment of the tasks performed, correction of pedagogical systems in general and pedagogical actions, in particular;
- forecasting the further development of the system of advanced training and pedagogical actions;
- with an optimal choice of educational goals, methods and means of their implementation.

Based on the above technology of step-by-step design and implementation of monitoring, we have developed a program for monitoring the effectiveness of the process of professional development of teaching staff in an educational institution of the advanced training system (Table 1).

Let's consider this program in detail. Structurally, it is designed in the form of a table consisting of seven columns:

- 1st indicates the levels of each of the three monitoring stages;
- in the second, objects and meaningful parameters of monitoring are indicated;
- in the third, the chronological framework and frequency of measurements of the state of the monitoring objects according to the selected parameters are set;
- in the 4th, the executors of the monitoring procedures are named. These are learners - listeners (C); teaching - teachers (P); administration (A); heads of departments (ZK); experts (E);
- in the 5th, methods and means of data collection (tools) are presented;
- in the 6th, users are designated, i.e. persons who are actually intended to receive the results (information) of monitoring;
- in the seventh, predictive means of implementing the monitoring results are indicated.

Table 1

The program for monitoring the effectiveness of the professional development process for teaching staff in an educational institution of the advanced training system

Monitoring and evaluation level	Objects and parameters of monitoring and evaluation	Chronological scope and frequency of measurements	Performers	Data collection methods, tools	Members	Means for implementing monitoring and evaluation results
1	2	3	4	5	6	7
I stage of monitoring and evaluation - diagnosis of the initial situation						
I. Level of educational institution	<p>1. The concept of continuing education in an educational institution</p> <ul style="list-style-type: none"> • Scientific ideas, approaches and attitudes • Goal setting and means of achieving it <p>2. Learning content</p> <ul style="list-style-type: none"> • relevance, novelty, availability; • goal setting <p>3. Infrastructure of an educational institution</p> <ul style="list-style-type: none"> • the state of the educational and methodological complex; • provision of technical teaching aids and information technologies • information resource center (library fund) <p>4. Professional and pedagogical competence of teachers</p> <ul style="list-style-type: none"> • orientation in the subject area; 	<p>December, lump sum</p> <p>December, lump sum</p> <p>December, lump sum</p>	<p>Scientific Secretary</p> <p>Administration, head of department</p> <p>Administration, head of department</p>	<p>Analysis, analytical table</p> <p>Analysis, analytical table</p> <p>Analysis, Form 2</p>	<p>Administration head of department, teachers</p> <p>Administration head of department</p> <p>Administration head of department</p> <p>Administration Head of the Department</p>	<p>On the basis of analytical information, the Academic Council makes a decision to improve / correct the concept.</p> <p>Based on the information, the Academic Council decides on measures to improve the educational and material base of the educational institution.</p> <p>On the basis of analytical information, a decision is made by the Academic Council on measures to improve the pedagogical competence of teachers. The results are recorded in the "database".</p> <p>Based on the analysis and mutual assessment, the teachers make a decision of the department to approve / adjust the content,</p>

	<ul style="list-style-type: none"> • methods and means of management (planning, control, assessment). <p>2. The comfort of the listeners at the training session.</p> <p>3. Real achievements of listeners:</p> <ul style="list-style-type: none"> • actual results of current and intermediate control 	<p>In the process of studying</p> <p>In the learning process (regularly on schedule)</p>	<p>head of department</p> <p>Listeners</p> <p>Administrator teacher</p>	<p>self-assessment Form 7</p> <p>Questionnaire Form</p> <p>Diagnostic procedures. Testing, creative assignments and other types of verification</p>	<p>Teacher</p> <p>Lecturer Head of the Department of Administration</p>	<p>council. Assessment and recommendations are given.</p> <p>The results are discussed at a meeting of the department, selectively at the academic council. Assessment and recommendations are given.</p>
Stage III monitoring and evaluation: evaluation of results						
<p>Level "teaching - learner"</p>	<p>1. The effectiveness of the educational process.</p> <ul style="list-style-type: none"> • compliance of the achieved results of educational activities with the set goal; • generalized assessment of training sessions; • satisfaction of trainees in professional development, their readiness for transfer - transfer of the acquired knowledge, skills and abilities into practice. <p>2. The effectiveness of professional development.</p> <ul style="list-style-type: none"> • correspondence of the results actually achieved by the students to the objectives of the educational program and state requirements; • change in the initial level of knowledge, skills and abilities of the listeners ("entry", "exit"). 	<p>At the end of the course ("exit")</p> <p>At the end of the course ("exit")</p> <p>At the end of the course ("exit")</p> <p>At the end of the academic year</p> <p>At the end of the academic year</p>	<p>Teacher head of the department administrator Teacher</p> <p>Teacher Head of Department administrator</p> <p>Teacher Head of Department administrator</p> <p>Teacher Head of Department administrator</p>	<p>Analysis Form 8</p> <p>Analysis Questionnaire Form 8</p> <p>Questionnaire Form 8</p> <p>Testing Comparative analysis</p> <p>Teacher Head of Department administrator</p> <p>Teacher Head of Department administrator</p> <p>Teacher Head of Department administrator</p>	<p>Administration teacher</p> <p>Administration teacher</p> <p>Administration teacher</p> <p>Lecturer Head of Department administration</p> <p>Lecturer Head of Department administration</p>	<p>Based on the analysis of the M&E results:</p> <ul style="list-style-type: none"> • further improvement of the professional development process in particular, and the system of professional development in general is forecasted; • strategy and tactics are defined by using the created database. <p>Corrected if necessary:</p> <ul style="list-style-type: none"> • content of training; learning technologies. <p>A decision is made on the conformity of the teaching staff.</p>

Consider the content of the monitoring process:

I. Preparatory stage of monitoring. At this stage, first of all, its goals are determined: the selection of the parameters of the initial situation, that is, the identification of monitoring objects. The goal defines the following tasks: pedagogical diagnostics and predicting further actions - finding and determining the causes of the current situation, developing an action plan for the implementation of diagnostic data and pedagogical correction measures.

As we established, the main objects and parameters of monitoring at the present stage are:

1.1. At the level of an educational institution, it is diagnosed and assessed according to the following indicators: the presence of a concept for advanced training of teaching staff. It is carried out by means of an analytical table. On this basis, analytical information is compiled (Form T.1.1.; T.1.3.) For the administration of the educational institution.

1.2. At the level of the department, the selection and structuring of the training content is carried out according to the principles: individualization (individual characteristics, level of education, category, level of professional experience, level of cognitive activity, level of needs and motivation are taken into account), continuity (the continuity of the content of the previous structural element with the subsequent one is taken into account), maneuverability (taking into account possible options for the further movement of the teacher along the educational trajectory), forward-looking nature (design of the content is carried out with a focus on promising social and personal requests and needs), integrity (the content creates a single basis for continuous professional improvement of the teacher).

1.3. At the trainer (teacher) level. Determination of the degree of education and competence of the teaching staff of an educational institution is carried out by means of an analytical table and self-assessment (questionnaire form) of teachers.

1.4. At the level of the learner (listener). Determination of the level of education and professional preparedness, as well as the motivation of students is carried out by means of an analytical table and self-assessment (questionnaire form) of students.

On the basis of the results obtained, algorithms for the interaction of teachers and students are developed to overcome any difficulties and fill gaps in knowledge, skills, and abilities.

The data obtained are, firstly, the basis of personal self-development maps; secondly, the subject of discussion at the pedagogical councils. Based on its results, measures are taken to improve the content of training.

The obtained data are formalized in the form of analytical information, which is discussed at the pedagogical council of the educational institution and, based on its results, appropriate measures are taken to make certain corrections to the curricula and programs, as well as training technologies are developed in the areas of advanced training of SSVE pedagogical personnel.

II- stage of monitoring. Monitoring at this stage is of an intermediate diagnostic nature: the results of the work carried out at the 1st stage are analyzed, the real achievements are specified by comparing the results with the developed criteria; technological support and correction, elimination of causes and factors that indirectly affect the effectiveness of the professional development process are carried out.

Optimality parameters of the educational process aimed at achieving the effectiveness of the educational process are determined on the basis of the following data:

2.1. The system for monitoring the effectiveness of advanced training is diagnosed by expert assessment: the presence of tests, educational tasks, creative tasks and the schedule of administrative control and mutual evaluation is determined.

2.2. Learning technology - is determined by self-assessment, mutual assessment and expert assessment on the Forms

On the basis of pre-developed indicators, the following is tracked: (1) the content of training; (2) teaching technology (methods, forms and means of teaching).

The results are entered into analytical information, which is discussed at the meetings of the department, in order to take the necessary measures to correct the educational process, its adequate compliance with modern teaching technologies.

This indicator, monitored and evaluated during the monitoring process, characterizes the effectiveness of the training process at the "trainer - student" level and is a qualimetrically measured parameter necessary to ensure the proper level of improvement of the educational process in the advanced training system.

2.3. The professional competence of teachers of an educational institution (in our case, the advanced training system) is determined once a year, through self-assessment, mutual assessment and indirect assessment according to Forms.... The results are included in the analytical material to be discussed at meetings of the pedagogical council and at meetings of departments of an educational institution. Based on the results of the analysis and discussion, measures are taken to provide teachers with the necessary methodological and practical assistance in improving their professional competence and qualifications.

Professional competence is a qualimetrically measured parameter of the effectiveness of the professional development process, which is subject to mandatory control and assessment in the monitoring process. The data obtained make it possible to track and evaluate the dynamics of changes in the professional competence of teachers in general, as well as individually, and serve as the basis for predicting the trend of its development.

The results are entered into the individual personality cards of self-development and self-education of teachers of an educational institution.

2.4. Actual achievements of students: the actual results of current and intermediate control, is determined in the process and at the "exit" using diagnostic procedures, testing, creative assignments and other types of verification. The level of real achievements of students determines the level of efficiency of the professional development process as a whole.

The data obtained for each parameter is the basis for analytical information, which is subject to discussion at the pedagogical council, meetings, methodological associations of the institute in order to take measures to correct the educational process.

Stage III of monitoring At this stage of monitoring, the final diagnostics and assessment of the following indicators of improvement of the professional development process are carried out:

3.1. Compliance of knowledge, abilities and skills, personal qualities of students with state requirements - is measured once at the end of the month (exit), through testing, analysis of test results, as well as on the basis of students' self-assessment sheets.

The results obtained make it possible to predict the development of the educational process, to determine the strategy and tactics for managing the effectiveness of the advanced training

process, to form a comparative database for the subsequent improvement of the functioning of the advanced training process in particular and the advanced training system in general.

The information obtained at this stage of the implementation of monitoring and evaluation, in the highest degree integrated characterizes the level of efficiency of the process of professional development and is the basis for the correction of both pedagogical and managerial actions aimed at further ensuring the development of the system of advanced training of teachers in SSVE as a whole.

3.2. Compliance of the educational process with modern technologies is assessed through expert assessments (external expertise) and on the basis of the Form ...

The data obtained serve as the basis for predicting the subsequent development of an educational institution in accordance with the requirements of the National Program for Personnel Training in relation to the development and implementation of new teaching technologies in the educational process, as well as to determine the strategy and tactics for improving and ensuring the effectiveness of the training process.

CONCLUSION

During the study, the following was carried out:

1. The concept of "the effectiveness of the process of advanced training" is defined in two meanings: (1) in general - as a complex characteristic of the achieved level of advanced training, the result of the activity of an educational institution for advanced training of pedagogical staff secondary vocational education in general (the level of an educational institution - student); (2) in the special - as the degree (measure) of compliance of the results of advanced training with specific goals of advanced training, determined by systematic recording and assessment (the level of training - student);

2. It has been established that the achievement of the effectiveness of the advanced training process is ensured within the framework of the socio-pedagogical system, which includes such components and elements as: state requirements, the teacher's regulatory model, criteria for the effectiveness of the advanced training process, monitoring the effectiveness of the advanced training process, etc.

3. Highlighted and scientifically grounded main indicators and criteria for the effectiveness of the professional development process, subject to tracking (recording and evaluation) in the process of monitoring at the level of an educational institution.

4. Based on the theory and methodology of modeling social, in particular pedagogical, objects, the author's model for monitoring the effectiveness of the advanced training process, which belongs to the class of algorithmic ones, has been developed, as well as a technology for monitoring the effectiveness of the process of advanced training of teachers of secondary specialized vocational education

The foregoing gives us the basis for the following conclusions:

1. Monitoring as a technological process can be really ensured on condition of its clear step-by-step organization, use of all elements of technological tools, observance of chronological prescriptions and measurement frequency.

2. The indicators of the effectiveness of the advanced training process obtained in the course of the monitoring program implementation are dynamic (not static), since data on the nature of their development are provided by the frequency of measurements, a logically justified sequence of uniform parameters of the measurements.

3. The information obtained from the monitoring results is the basis for making pedagogical, organizational and other decisions after the obligatory discussion at the councils of the Institute for Advanced Studies, department meetings.

The substantive parameters of the effectiveness of the professional development process, the model and monitoring technology developed in the process of the research, allow the transition to a scientifically based implementation of monitoring studies at the level of an educational institution.

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