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Test and Evaluation activities – an important component of the training of future teachers of informatics

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Abstract: The article deals with the topic assistance of computer technology in the implementation of approaches to monitoring and evaluate of participant's knowledge, the transition from traditional evaluation methods to test control methods to use. Test control makes estimates meaningful, objective and differentiated.

Keywords: control and evaluation activities, monitoring, evaluation, test control, computer technology participfnts

Information – ICT in teaching computer courses offers unique opportunities to enhance the process of learning, to use all the new software tools as a means of providing training and quality control in the training of the future teachers, but also as a tool for the implementation of new teaching approaches for productive teaching and learning activities. For preparation of future teachers of informatics in higher education from the perspective of today there has been an intensive search for modern learning technologies to build new educational strategies shift from traditional classic to test control. The essence of the problem is that at the stage of professional activity in the preparation of future computer science teacher classical means, and traditional means of computer technology and ICT (information and communication technologies) and require that the object of learning different skills in the profession, and various types of control and assessment activities.

Control of knowledge and skills of participants is a critical component of the educational process. Its effectiveness depends on the organization of feedback that is possible thanks to the control of students' knowledge [1]. In pedagogy use and improve a variety of traditional forms of control as oral interviews and written test of knowledge, which is now called classical. But they clearly indicate the lack of reliability, validity, representativeness, adaptability, scientific approach to meet its mission objective measurement and assessment using classical forms of control that meets the criteria of tests that measure certain quality [6, 20-23] . With control – assessment of defining achievement of goals, including: monitoring, evaluation, verification, accounting, accumulation of statistical data and analysis, identification of the dynamics of educational change, setting goals, clarifying educational programs, adjusting the learning process, predicting future developments, performs diagnostic feature of learning [7]. There are important functions such assessment: supervisory, training, diagnosing, corrective, stimulating, motivational, developmental, educational, psychological, and manage the learning process.

Assessment – the process by which quantitative results show the system of education quality [5, 163]. In science lessons using various forms of assessment of knowledge:
• oral form of testing;
• writing testing;
• laboratory or practical work on the computer;
• interviews;
• testing;
• computer testing;
• self-esteem;
• playing assessment methods.

Evaluation does not leave indifferent student learning, causing a sense of satisfaction, increasing interest in learning and serves as a means of promoting or, conversely, feelings of grief, dissatisfaction with themselves, striving to overcome some difficulties. Monitoring and evaluation function learning management as the test of knowledge is a result of training activities to ensure that:

• transparency and openness of control results;
• objectivity and fairness of assessment of knowledge;
• standard tests;
• lack of psychometric and emotional impact on the student;
• development of individual and independent work in education;
• the possibility to monitor all of the material rather than selectively;
• enables simultaneous control of many children in a short period of time [8,94].

On the basis of tests are specially trained tasks that allow you to quickly, reliably and objectively assess knowledge. Diagnostic function is responsible for identifying the level of training patterns at different stages of training; organizing feature - an organization of educational process based on the results of monitoring. Certainly, equally important is the educational function that forms the responsibility of the educational process.

The purpose of testing is finding more precise than other forms of control, measurement methods and assessment. This method in terms of objectivity, namely the harmonization measure, provides more objective process measurement and data processing does give positive results. Practice test knowledge evaluation shows that the most important issue is the preparation of test cases. Test questions should be important in content and have the appropriate structure. Therefore, you should follow certain requirements to tests.

The following types of tests:
• selecting answers from a set of proposed options (single or multiple);
• incorporating (keyboard input) response (clean or empty text field) establishing procedures;
• establish logical connections;
• setting the correct sequence;
• selecting a fragment of the proposed graphical illustration;
• other.

Since the tests significantly affect the learning of students, to develop such tests, which will contribute to the achievement of learning objectives. Test objectives should meet two basic criteria: it must be important in content and have the appropriate structure. Avoid errors from which will benefit experienced in testing students, and avoid excessive complexity. This is the premise that the tests will give relevant results.

To address these challenges offer for use the platform Moodle (Modular Object Oriented Distance Learning Environment) – a learning management system, create a bank of tests focused primarily on the interaction between teacher and students, suitable for training of traditional distance learning courses and much more. MOODLE Platform can be installed on any operating system (MS Windows, Unix, Linux). Using Moodle can create the future teacher training courses; filling them with content in the form of texts, supporting files, presentations and questioners. Moodle Platform provides additional opportunities for creating test items copied from other systems in which previously created tests, modify, display evaluation, you can view the proposed assessments for the passed test and more [3].

With the platform Moodle [2] can create new tests which consist of:
- tasks;
- rules for their use;
- estimates for each task;
- advice on the interpretation of test results;
- create job open form of three types.

In setting such as short answer to answer using the keyboard on this question – you need to add a word or phrase. In the task, you can use graphics. Tasks can have multiple correct answers with a different value estimates. Type a numerical answer is a special case of the problem with a short answer. The peculiarity of the problem is that the answer must be given as a number. Creating a mathematical formula in a test. In a test of this type creates a mathematical formula according to which the student has to calculate. The value of variables that go into the formula given chance. Using these values to perform calculations and numerical results swing in the reply it will be calculated by the formula.

Target closed form.

The choice of the set. In the task, you select one or more answers from the proposed set of options. Each answer should have their weight assessment. Overall for the job consists of evaluations of selected options.

Choosing the right – not true. This type of task requires a clear answer to this question. The Challenge also use graphics.

Choosing compliance. In this type of task on the same topic created a set of questions and a set of correct answers to those questions. When testing for each question must be chosen from the list corresponding correct answer.

Random assignment brief response. This type of problem in the form of its presentation is similar task to choose matching. It is based on the short answer tasks that are created in a particular section.

Objective combined form. Nested response – such as the creation of a task by inserting it into the text describing the so-called nested replies. As an embedded answers can be answered open and closed forms. Attachments responses by using a special language to describe them. Each answer has invested its assessment.

Note – this is not the real test tasks. With notes can print some text (using graphs), which do not match. It can be used to inform (on the test pages) students, for example, some specific groups of tests.

Random assignment – this tests, set the number of random students will be displayed on the page test.Using all of these problems contributes to student learning and teaching in collaboration [2].

According to the results of the students problems, the teacher can assess and display to comment. Thus Moodle is a platform for placing educational material and providing interactivity between participants of the educational process. In the ca-

reers of the future science teachers to provide professional orientation control assessment activities in secondary school just learning process to use information and communication technologies for effective professional activity, including control and assessment using testing technology.

Conclusion. Modern school teacher right now who could renovate, improve the content of the activity. Specifically tailored to suit the content of new curricula and didactic and methodological requirements of control and assessment of teachers that promotes better assimilation of knowledge and improve the quality of the educational process.

REFERENCES

1. Лапінський В.В. Навчальне середовище нового покоління й особливості навчально-виховного процесу / В.В. Лапінський // Інформатика та інформаційні технології в навчальних закладах : Науково-методичний журнал. – 2007. – № 4. – С. 80-82
2. Методичні рекомендації зі створення тестових завдань та тестів системі управління навчальними матеріалами MOODLE /В.П. Сергієнко, В.М. Франчук – К.: НПУ імені М.П.Драгоманова, 2012. – 58 с.
3. Обучающая среда MOODLE: Електронний ресурс. Режим доступа: http://docs.moodle.org/ru/.
4. Павлюченко Л.С.Підготовка майбутнього учителя інформатики до контрольно-оцінювальної діяльності / Л.С. Павлюченко// Вища освіта України: теоретичний та науково-методичний часопис. № 2 (додаток 2) – 2013 р. // Тематичний випуск «Науково-методичні засади управління якістю освіти у
вищих навчальних закладах» – Луцьк: «ВолиньПоліграф». – с. 167-172
5. Підготовка фахівців з освітніх вимірювань в Україні:[навчально-методичний комплекс] / О.В. Авраменко, Ю.О. Ковальчук, В.П. Сергієнко та ін.; за ред. О.В. Авраменко. – Ніжин: Видавець ПП Лисенко М.М., 2012. – Частина 2. – 400 с.
6. Пугачев В.П. Тесты, деловые игры, тренинги в управлении персоналом: учеб. для студентов вузов. – М. : Аспект Пресс, 2003. – 285с. (с. 20-23)
7. Солсо Р.Л. Когнитивная психология / Р.Л. Солсо. М.: Тривола, 1996. – 598 с.
8. Ягодзінський А.Й., Муромцева А.О., Іванова Л.В. та ін. Оцінка знань студентів та якості підготовки фахівців (методичні та методологічні аспекти) : навч. посібн. / А.Й. Ягодзінський, А.О. Муромцева, Л.В. Іванова [та ін.]; за ред. А.Й. Ягодзінського. – К.: ІЗМН, 1997. – 216 с.

Павлюченко Л.С. Контрольно-оценочная деятельность – важнейший компонент формирования готовности будущих учителей информатики

Аннотация. В статье рассматривается использование компьютерных технологий в реализации подходов к контрольно-оценочной деятельности знаний учащихся, перехода от традиционных методов оценки к использованию метода тестового контроля. Тестовый контроль делает оценку более содержательной, объективной и дифференцированной.

Ключевые слова: контрольно-оценочная деятельность, контроль,оценка, тестовый контроль, компьютерные технологии