



METHODOLOGY OF USING SOFTWARE TOOLS IN THE CONDITIONS OF INNOVATIVE EDUCATION

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Abstract

This article describes innovative education and the use of software tools, applying it to the teaching process, and its features.

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Introduction. We know that the 21st century is the age of computerized technology. There is no field that has not been penetrated by information communication. Along with such fields, information communication occupies the main place in education. Bringing innovative ideas to education is an effective way to implement it, which means using information communication.

The main part. Currently, the most widely used and common types of educational software tools are iSpring, Hot Potatoes, CourseLab, Mytest programs.

One of the widely used software for creating electronic information learning resources is the iSpring program. Usually, Microsoft PowerPoint software is used in most cases in the process of preparing a presentation. But such presentations can only be in the format of this product (ppt, pptx). Currently, as a result of the development of Internet technologies and, in turn, the emergence of distance education, presentation files must be in flash (swf) format or based on HTML 5 technology in order to directly view them online in an Internet browser. By now, programs have been created that allow creating a flash-roll from a presentation prepared in PowerPoint.

The product is called iSpring and has variants such as iSpring Free, iSpring PRO and iSpring Presenter. According to independent experts, this product is one of the best today in terms of speed, quality of conversion from one format to another, and number of options. iSpring not only allows you to create flash-presentations, but also allows you to create videos that can be used in the educational process, in particular, they can be interactively connected, including various forms of surveys and electronic tests.

iSpring has the following options:

- the ability to convert presentation files in several (exe, swf, html) formats;
- the ability to insert external resources (audio, video or flash files) into the presentation content;
- protection of the content of the presentation: viewing with a password, "protecting" the presentation, "turning" the presentation only in authorized domains;
- add video and synchronize it with animations;

- a tool for creating electronic tests (controls) and creating interactive texts with the possibility of sending their results to e-mail or to a distance learning system (LMS) is installed (Quiz button);
- create SCORMGAICC compliant courses for use in the distance learning system;
- ActionScript API for presentation application-level scrolling; recording a video image and synchronizing it with the presentation;

Possibility to include YouTube videos in the content of the presentation.

iSpring Kinetics can be used to create inbound references and dictionaries within EAT resources. iSpring Kinetics has the following key features:

- creating a convenient electronic glossary, reference or dictionary on a subject;
- create a timeline;
- Create a 3D book;
- FAQ can be created.

The iSpring QuizMaker software can be used to create the required e-tests within the EAT resources.

iSpring QuizMaker has the following main features:

- the ability to create branched tests (the ability to create adaptive tests);
- closed test tasks with two, three, pie or five answers, one of which is correct, two of which are closer to the truth;
- closed test tasks with multiple answers;
- open test tasks;
- tasks aimed at identifying similarities;
- The ability to create tasks designed to determine the correct sequence.

Controlling, testing and evaluating the knowledge of students is of great importance in the training of modern, competitive specialist personnel. If it is not left alone, the expected result will not be achieved regardless of whether we use different methods or prepare different tasks for an interesting lesson. Because in the human mind there is always a psychological process that evaluates the work performance. If his work is not evaluated or he is not satisfied with being evaluated or rewarded, his activity will decrease, and in the end he may become "disappointed". Regular examination and assessment of the knowledge of the students imposes on them the task of in-depth study of the subject and improvement of control methods.

Electronic forms of monitoring student knowledge. Testing as a form of attestation and verification of student's knowledge and student's knowledge was created in the educational activities of departments of natural and humanities before the emergence of computer technologies.

According to the rule, students are removed from the test control (even with the use of computers) for the following purposes:

- propaedeutic control of knowledge (on knowledge of basic knowledge);
- thematic (current) control of acquired knowledge and studies;
- final control of knowledge;
- final attestation of all subjects of academic subjects;
- Monitoring of residual knowledge and studies (residual control).

The test system for monitoring knowledge, skills and abilities in the field of education performs the following functions: diagnostic, educational, external, educational and managerial. The diagnostic function

is the essence of the test control: it is to determine the achievements and structures of such training, both at the level of the educational lesson, at more general levels of the educational subject and in all the professional training of the student.

The instructive function comes from showing speaking, demonstrating areas of knowledge, and finding probes (heads) in the process of test or standard answers. Improvement of knowledge in the course of test lessons takes place through additions, clarifications and corrections.

The educative function is related to the improvement of the student's educational foundations, the formation of responsibility for the results of cognitive activity, and the self-organization of the educational process. In general, monitoring academic achievement for an individual can help identify both strengths and weaknesses. The managerial function of testing is related to the actions of the student, teacher and the administrative department of educational institutions aimed at perfecting the methods and technologies used to increase the effectiveness of the educational process. Compared to the traditional oral exam, the exam test is not only the most objective method of evaluation, but also the most psychologically protective: the level of anxiety is low, the level of attention is high, and the physiological characteristics of the body are the most comfortable. excessive strictness or, on the contrary, excessive complacency will affect the emotional assessment of the examiner in relation to the particular student. The effect of unintentionally lowering scores on a well-prepared group is balanced when the examiner tends to develop a scale of his or her own distribution of scores. The level of unification of students in the examination test is high, uniform criteria and standards of evaluation are developed, time of students and teachers is saved. Failure in the exam is not related to the personality of the teacher.

Modern testing in the educational process is based on the theory of qualitative measurements and engineering pedagogy.

Tests used in the educational process in higher education institutions are divided into the following two groups according to their purpose:

- qualified (normative oriented);
- Attested (criteria oriented).

The first type is the most common. It is characteristic for him to compare the individual result with the results of other students and the middle group for the purposes of a specific procedure or selection. If a student is admitted to higher education institutions according to the results of such testing, then student life can begin (with the sum of points exceeding the "shooting point"). The often repeated purpose of qualification testing is to divide students into groups according to a certain order - reduction: "high achievers", "low achievers", "three achievers", "those who cannot reduce".

Attestation tests are aimed at explaining the individual level of achievement of students in a given specialty. For this, during the attestation test, the object is given a series of test tasks of increasing complexity, so that it does not make mistakes. The level of complexity of the tasks that the student confidently answers characterizes the level of his achievement in the given subject ("personal" record at the time of the test). In other words, the basis of criterion-referenced tests is the comparison of individual results with the planned volume of units for a well-performing student. According to the rule, tasks in qualification tests are placed in the order of their increasing complexity (that is, according to the increasing number of actions leading to the correct answer). This applies to the tasks on the entrance exam tickets as it does to the IQ tests (in options). But due to the small number of questions in the tickets, they cannot be included in the certification tests. In the modern pedagogy of higher education, the principle of person-oriented education is adopted as a goal, the development and use of criterion-oriented tests (attestation test) in the educational process of tests is of particular importance. They provide a tangible foundation for improved personal achievement and are perfectly suited to the goals of open distance learning. Nevertheless, qualification tests remain relevant for monitoring the educational process.

It is possible to determine the final knowledge and skills of students in the educational process based on various criteria and approaches, to apply information technologies, open source software to these processes, and to control the validity of their compliance with the didactic requirements.

It is known that such evaluation of the learning process is not limited to determining the student's level of improvement, but it is an important pedagogical tool in stimulating the learning process and has a strong impact on the student's personality by instilling positive motivation. In this way, on the basis of objective assessment of the student, it is possible to adequately evaluate him and to form a critical attitude towards his achievements. In education, the quality of open-source software and websites is considered one of the most important aspects affecting the development of the information phase in the educational process.

The main requirements for test-based control for the implementation of knowledge control are as follows:

- validity (adequacy in terms of function and content);
- clarity (comprehensibility for everyone);
- simplicity;
- means the same meaning (evaluation according to the answers);
- Reliability.

In determining the validity of the test, it is necessary to distinguish between its substantive and functional validity.

The fulfillment of the requirements for the accuracy of the test implies that, in addition to the student's correct understanding of what should be done from the tasks; he should not take into account the answers that are extraneous from the actual answer.

The simplicity of the test means that each test should consist of a single task of the same level of difficulty, in other words, it should not consist of several or complex tasks of different levels of difficulty.

The reliability of the control with the help of the test is explained by the fact that even when a certain student is repeatedly controlled on the test task, his results will have the same content.

Although it is clear from the tasks that it is necessary to create test items to meet the above five requirements in the introduction of this tested system of computer-aided control, there are several other problems related to computer-aided assessment of students using test items. It appears that the effectiveness of computer-aided, open-source software monitoring of learning depends, in most cases, on the collaboration between the controller and the software developer.

Conclusion. In conclusion, it can be said that the test methodology of using adaptive control tests of knowledge in open source programs used in experimental classes is effective, and the conducted experimental-test analyzes provide a basis for its popularization on the scale of our republic.

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