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The influence of rating system over quality of academic training organization

European educational community has lived over a decade under the sign of the Bologna Process. Its main point is to form unified European system of higher education. On the 19th of July, 1999 ministers of education from 29 countries signed the Declaration on creation of the uniform European educational area. In the year 2003 Russian joined the Bologna Process officially at the Berlin Conference.

Foremost, all the events under the Bologna Process aim to make favourable conditions for students to study at their best and for graduates to be more competitive at labour market.

There are 6 main goals in the Bologna Declaration reaching of which provides educational unity of European countries. Among them, quality checking of tertiary education is indicated as one of the most important challenges.

Modular rating system is one of the methods to meet this challenge. It is introduced as the whole range of managerial and methodological measures to increase training effectiveness and to certify objectivity and reliability of assessment of academic progress and final results under completion of curriculum. Due to modular system it is supposed that subject's content is divided into blocks (modules) and regular estimations of students' knowledge, skill and competence are held according to the modules of the subject.

The main aim of modular rating system is to improve quality of education and to appraise students' work during mastering of tertiary curriculum.

At present the modular rating system is used at the Ural Technical Institute of Communication and Information Technology in teaching of some disciplines, in particular Mathematics and Information Technology. Transition to the modular system of training organization caused changes in system of estimation of students' skills. As a result comparison table of boundary points was elaborated. A student's cumulative rating is kept count all the time to accumulate points awarded for different academic activities during the whole period of discipline studies and it shows student's rank among others. Cumulative ratings are accessible for students themselves and other persons concerned (parents, employers etc.) It engenders open competition and motivates students to learn better.

Rating technology of estimation of students' academic results in a definite subject is based on calculating of accumulated points for current academic activi-

ties (laboratory or home works, papers, tests and others) and regularly taken checkouts (pretests, written and spoken tests, course papers and others). Unlike traditional assessment system, rating technology provides successive summing up of student's points in a given discipline for a definite period. The present-day student's rank in a subject is summed up of all the marks for every academic and testing activity with no exception. Among them are also extra-curricular activities, such as participating in knowledge contests and competitions, public speaking at scientific conferences of different levels and working with university entrants.

An educational module is a part (a package) of educational and methodological material logically bound and functionally accomplished. It is studied during student's independent work and in classes of different types. An academic discipline consists of a range of educational modules. For example, a course „Information Technology” is made up of eleven modules: „Information theory”, „Hardware of personal computer”, „Software of personal computer”, „Processing of text documents”, „Electronic spreadsheets”, „Data bases”, „Automation of engineering and scientific calculations”, „Computer graphics”, „Programming technologies”, „Computer networks”. The concluding 11th module is a course projection. Module content corresponds to the curriculum and teaching program of the discipline. Every educational module ends with a definite checkout activity to estimate retention of auditory material and has its value which is determined by the amount of points given for a certain work in this discipline during the term.

Rating system is mainly aimed to raise students' motivation to master their curriculum, due to the fact that their marks will be more differential and their tertiary training will be organized at a more qualitative level.

It's obviously that, among advantages of rating system, possibility to organize and support systematic students' work during the term is the main one. It results in rising attendance and discipline at classes. Students are interested to visit studies regularly and participate in academic and research activities actively. Reducing of exam stress is also of great importance as rating system revealing success index of each student enables to predict exam or pass-fail results.

When using this system control of educational activities is no longer directive. It emphasizes psychological peculiarities of youngsters' audience and stimulates both students and teachers to work creatively. Students have the possibility to get information about how successful his or her studies are and compare their level of knowledge with that of the other students.

However there are some disadvantages of modular rating system nowadays:

- the amount of teacher's work increases considerably as it is necessary to estimate different educational activities of every student;
- when lacking network versions of program products, it can be impossible to process the results of students' work and present them in the form of rating system;
- partaking of special staff to input the data as intermediary can sometimes bring to mistakes;

- there is a lack of methodological materials helping to check the level of knowledge automatically with the help of test programs.

To eliminate these disadvantages it is necessary:

- to review the differential system of student's knowledge estimation in details;
- to work out unified software for collecting, processing and storing of the given data;
- to provide the access to the electronic variant of the rating system at different levels (for teachers – at edit mode, for students – at view mode etc.).

To sum up it is possible to determine principles of modular rating system:

- Division of the content of educational discipline for separate parts – discipline modules;
- Availability of the results of students' academic progress;
- Stability of requirements for students' work;
- Regularity and objectivity of estimation of students' work through accumulating of rating points;
- A stable feedback to correct the content and methodology of teaching;
- Strict observance of the implementation standard by all the participants of academic training (students, professors' and teachers' staff, auxiliary and managing personnel of the higher educational establishment).

Abstract

Influence of modulo-rating system on technology of teaching of a base course of computer science of the higher vocational training is analyzed. The characteristic of merits and demerits of system is spent. Possibilities of elimination of lacks are considered.

Key words: higher education, teaching of technology, computer science education.

Wpływ zastosowania systemu kontroli jakości organizacji systemu kształcenia

Streszczenie

W artykule przedstawiono wpływ systemowego modułu sprawdzającego na technologię nauczania podstawowego kursu informatyki w kształceniu na poziomie wyższych studiów zawodowych. Przedstawiono tu charakterystykę zalet i wad systemu. Rozważono również możliwości eliminacji brakujących elementów tego systemu.

Słowa kluczowe: edukacja w szkole wyższej, technologia nauczania, edukacja informatyczna.