

Studying the Practice of Performance Assessment and Rating System Implementation in Higher Institutions

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ABSTRACT

This paper investigates the results of studying the practice of performance assessment and rating system implementation in higher institutions. The key methods of the study are conversations, observations, system analysis, synthesis, generalization which allow us to evaluate the peculiarities of the rating system components which depend on the particular characteristics of the higher institutions, discipline, year of study and students' academic performance. The article considers the role of the organization and the basis of the rating system in the educational process; the appropriate proportion of scores' distribution for formative and summative assessment is presented; characteristics of students of the university are identified. We find robust evidence that differentiation and ranking of students' works including their evaluation, taking into account the form and the year of study, in order to achieve students' involvement in the work and objective assessment of the outcomes are necessary. The results of the research, conclusions and recommendations are targeted at improvement and development of performance assessment and rating system in higher institutions.

KEYWORDS

Course; score; mark; academic performance; term work; rating; discipline

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Introduction

The problem

The last three decades were characterized by the process of the European integration of educational system. Its specific objectives are as follows: the development of the international competitiveness of educational institutions and their graduates, promotion of European cooperation in quality assurance with a

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view of developing comparable criteria and methodologies, social mobility and cooperation of teachers and students in the various countries, meeting the challenges of contemporary knowledge-intensive economies and societies in the labour market. The objectives were supposed to be achieved by intensification of educational process with the application of new technologies, the adoption of flexible education system, the establishment of a uniform system of credits, the implementation of the general approach to an assessment of the quality of education. The development of a society and scientific and technical progress demand professionals who possess high level of knowledge, upgraded abilities and skills. The modern system of competency-based approach is aimed at preparation and an estimation of such employees.

Nowadays, most universities implement competency-based approach by using active and interactive learning instructional strategies which include business meetings, role-plays, case studies, psychological and other training (Frolova, 2013; Borisova & Klimova, 2015; Vasbieva & Kalugina, 2016).

The relevance of the range of assessment modes can be examined in the context of the teaching and learning opportunities provided at any given time. This will help ensure that on-going developments with the assessment strategy enhances the integration of assessments, increases the role of assessment in learning and the effectiveness of assessment in measuring achievement and competence (Vasbieva & Klimova, 2015).

Russian traditional system of education with a number of hours spent in class and the list of disciplines in the curriculum has been replaced by a new one based on a uniform system of credits which is widely applied in the European education system. While there is a long tradition of learning outcomes' assessment within institutions' courses and programmes, emphasis on learning outcomes has become more important in recent years. Interest in developing comparative measures of learning outcomes has increased in response to a range of higher education trends, challenges and paradigm shifts. Despite long-term history of this process, some issues of adoption and efficiency of application of the system remain uninvestigated.

The role of performance assessment and rating system in educational process

In accordance to the development of a new system of educational process, the application of new educational technologies includes performance assessment and rating system of learning outcomes and degree of student engagement in learning process. In Russia scores are applied, as intermediate indicators of an estimation of level of knowledge got while studying a subject, as well as an outcome measure. Performance assessment and rating system can be characterized by a set of positive factors and carries out a number of effective functions of the management and control of educational process:

- improves the level of student attendance;
- enhances students' engagement;
- provides continuous control of knowledge;
- stimulates training activity as well as student's research work;
- increases motivation of educational activity.

Performance assessment and rating system gives an opportunity to estimate various kinds of the works carried out by students during the term. They include class room work, projects, individual work and group work. On the basis of the scores gained different ratings are made: internal group ratings and it's possible to make interfaculty and interuniversity ratings at faculty level. But the most important thing is that by means of performance assessment and rating system the effect of personal fulfilment of the student can be achieved.

Literature Review

The issues of performance assessment and rating system management are covered in the papers of modern scientists (Sabirova & Shved, 2005; Gorin & Kaminsky, 2005; Permyakov, Zhadan & Melnikov, 2006).

Pedagogical methods are presented (Guzeev, 2001; Selevko, 2006; Frolova, 2013; Vlasyuk, 2015).

Some works are devoted to psychological characteristics of the student (Zimnyaya, 1989; Akopov, 2003; Bakshaeva, 2006; Zhiginas, 2011; Borzov, 2016). Practical aspects of implementation of performance assessment and rating system in higher education have been investigated (Galimov, 2010; Solodyannikov, 2010; Gibadullin, 2011).

Self-assessment intercultural competence scale has been presented in order to find full application in social practice (Bírová, Barancová & Šimková, 2016). The role of competency-oriented exercises in assessment of level of students' competency in a non-linguistic institute of higher education is examined (Kalugina, 2015).

Meanwhile, analysis of theoretical studies, best and mass practices reveal that the problems of optimization of scores' correlation for class activity during the term and examination, also research of students' activity depending on a course and the age of the student have not yet become a subject of special pedagogical research.

Materials and Methods

During the study the following methods were used

- theoretical methods: system analysis, synthesis, generalization, theoretical analysis of pedagogical, psychological, scientific, methodical and technical literature on the research problem;

- empirical methods: observation, conversations, monitoring, questioning.

To find out the features of performance assessment and rating system management and students' engagement in this process, the observation of the use of performance assessment and rating system in Russian higher educational institutions has been carried out. Empirical research was based on results of the use of performance assessment and rating system in higher institution from 2013 to 2015. For analytical processing selection of study circle of bachelor students majoring in «Economics» and «Management» has been carried out.

Results

Bases of performance assessment and rating system

Performance assessment and rating system applied in modern Russia is a prototype of European Credit Transfer and Accumulation System (ECTS) which

is a standard across the European Union. Students can accumulate credits and pass them over to other institutions to continue with their studies.

According to the foreign system ECTS following grades of an estimation of knowledge, skills got during the course are applied: A «Excellent» («Outstanding performance with only minor errors»), B «Good» («Above the average standard but with some errors»), C «good», D/E «Pass / Sufficient», «Passable performance, meeting the minimum criteria», F «Fail», «Considerable further work is required». In Russia there is a transformation of 100-point grading scale onto five-point grading scale, traditionally developed at the beginning of the last century in the USSR. For example, Moldova, Georgia, Belarus and Armenia have passed on a 10 point grading scale of an estimation of knowledge, Ukraine - 20 point grading scale.

Theoretically, in Russian higher institutions «Excellent» corresponds to A «Excellent» («Outstanding performance with only minor errors») and B «Very Good» («Excellent»), «Good» - C «Good», «Satisfactory» - D «Satisfactory» and E «Sufficient», categories «unsatisfactory» are as follows: Fx (Fail – some more work required before credit can be awarded) while those who have clearly failed are graded as F (Fail – considerable further work is required).

It should be remembered here that the competency-based approach implies that final grades “excellent”, “good” or “satisfactory” should determine not so much a student’s level of knowledge as the qualities which characterize the degree of maturity of the competency being evaluated (Porshneva & Abdulmianova, 2015).

Turning a rating scale into a score scale is a controversial issue. So the conducted research on performance assessment and rating system application has shown a set of variants of scores’ distribution.

Table 1. Example of the correspondence between the scores and final marks on the course completion

Mark	Scores
Excellent	86-100
Good	(69)70 -85
Satisfactory	51-68(69)
Fail	0-50

According to the opinion of the authors, based on the results of the research of performance assessment and rating system application in different higher institutions, polls of students and academic teaching staff, personal experience, correspondence between the scores and final mark on the course completion should be within the limits of the figures presented in Table 1.

Optimization of Scores’ Correlation

As it has been mentioned above, many scientist and teachers devoted their works to the issue of performance assessment and rating system management, but as a result, there are no accurate recommendations on the parity between scores for class activity and exam scores.

Various options are presented in different sources: 20 & 80, 30 & 70, 70 & 30, 40 & 60, 60 & 40, 50 & 50. The authors have been conducted research on the application of performance assessment and rating system among students majoring in different areas in various higher institutions. Interviews among teachers have been reviewed. As a result, the best 3 parities of scores have been chosen (Table 2).

Table 2. A parity of scores for class activity during the term and exam scores

Option	1	2	3
Scores for class activity	20	70	40
Exam scores	80	30	60
Total	100	100	100

The first option provides an opportunity for a student to get 20 scores for class activity during the term and 80 scores - for end-of-term exam. A student who is satisfied with a «satisfactory mark» will not show diligence during the term, the result will depend mainly on the exam score. The negative factor of the presented approach is the lack of students' motivation to work hard during the term, especially those ones who are not intended to get «excellent mark». Such parity of scores is recommended to apply to humanitarian subjects, except for language-oriented disciplines.

The second option with a proposed 70 scores for class activity during the term and 30 scores for end-of-term exam is more appropriate for practice-oriented disciplines in technical colleges, at medical universities where the laboratory classes in educational process are of great value.

In case of distribution of scores is 40-60 for class activity and examination correspondingly, the maximum score without taking into account class activity is «satisfactory». Therefore, such distribution of scores stimulates active work of students during the term. In our opinion, the given practice is more applicable for preparation of bachelors majoring in «Economics» as this major includes practice-oriented and theoretical disciplines.

The course and results of the experiment

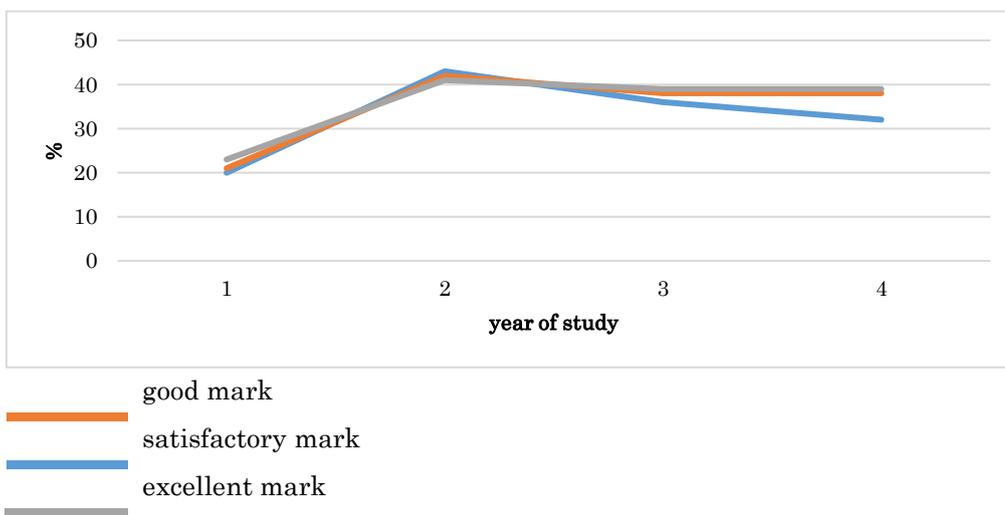
To assess the efficiency of performance assessment and rating system from the point of view of stimulation of students' work during the term the analysis of results of current knowledge and formative assessment of 10 groups of bachelors majoring in «Economics» and «Management» during 2013-2015 on disciplines of the humanities, the module of computer science and mathematics, general professional disciplines, compulsory subjects for the majors which reveal specificity of higher institution and elective courses has been carried out. Those disciplines, on which a summative assessment is in the form of examination, have been chosen as a data base.

The research has shown that performance assessment and rating system reveals the level of knowledge got while studying the discipline and allows us to identify the dependence of psychological condition of the student on his/her activity (Table 3).

Table 3. The proportion of the current results in the summative assessment (%)

academic performance	Year of study			
	1	2	3	4
Satisfactory mark	20	43	36	32
Good mark	21	42	38	38
Excellent mark	23	41	39	39

The general trend for all the categories of students is that 1st year students study more disciplines of humanities and social sciences, therefore work term provides 20 % out of the total result, thus exemplary students do not have high results, on the average 23% due to semester GPA (Grade Point Average). It can be noticed that the highest level of interest in the disciplines is among 2nd year students. It is connected with the fact that students start studying major-specific disciplines according to the curriculum and have a desire to reach the best result. The greatest class activity is shown by students with satisfactory results (Diagram 1).

**Figure 1.** Dynamics of students' performance (%)

The diagram depicts that the largest proportion of term work (about 39%) is obtained by exemplary students except for the second year. However, by a 3rd and 4th year of study decrease in activity of work during the term to 32% is traced. Primarily, it is due to the fact that the majority of students by the graduation start their professional activity. Besides, attaining the age of 20 a student enters another stage of personal development from Adolescence (under the age of 20) to Early adulthood (over the age of 20), during this period the psychology of human, including the attitude to study changes. The value of performance assessment and rating system in encouraging and motivating students' decreases.

Discussions

Estimation of knowledge is based on work during the discussion sessions and students' individual work. Discipline syllabus involves various forms of works. The classwork can be organized in the form of laboratory services, scenarios, case studies, role plays, discussions etc. Besides, there can be a group work and individual work that require different approach to an assessment of level of knowledge, abilities, skills, also students' engagement in learning activities. The main problem is the development of adequate scoring criteria for each form of the activity.

An opinion poll among teachers has shown that specificity of discipline and personal opinion of the teacher lead to various proportion of scoring system. For example, about 20% of teachers offer "task summary list" given for the whole term, in the form of a case study. The tasks on the case can be passed on a staged basis or at the end of the term. Such tasks give a chance to get up to 50 % of scores for class activity. In this case, the discipline should be provided with corresponding educational learning material. However, knowledge assessment should be comprehensive and differentiated in accordance to the types of tasks. In our opinion the most efficient proportion is as follows: 50% (up to 20 scores) – class assignment, 25% (up to 10 scores) – academic affairs, 15% (up to 6 points) – engagement, 10% (up to 4 scores) - attendance out of 40 scores possible.

The role of the teacher as a person who provides methodological support for each discipline, organizing in-class work and individual work, taking into account the peculiarities of performance assessment and rating system according to the syllabus is getting more significant.

In the European education system, the role of the teacher differs greatly. It changes as well. The teacher is not just only a person who delivers and transfers knowledge but organizes students' activity. Moreover, the system forces students to work despite the quality of teaching. A student attends the classes of the teacher due to the need to gain the scores rather than high level of interest in a subject. Lecture as a conventional concept becomes irrelevant, as modern educational legislation requires holding classes in an active and interactive way, for example the participatory lecture which corresponds to traditional seminar becomes popular. Therefore, in a number of high institutions the tendency of decrease in lecture hours is observed, up to full reduction of some disciplines or their replacement with video courses, and prevalence of seminars in curriculum.

Conclusion

Thus the main advantage of the performance assessment and rating system against traditional forms of assessment of students' learning is a higher degree of objectivity. Meanwhile, the subjective assessment exists, as the score is based not only on the amount of work performed, but also the quality, which is evaluated by the teacher.

The advantages of the performance assessment and rating system is the possibility to make ratings of groups, cohort of students, faculties on the number of points scored by the students, which in turn acts as a stimulus for the enhancement of the further student activity.

In addition to the positive aspects of performance assessment and rating system it should be noticed an opportunity for a student to decide on course

intensity with term exam. It's impossible to get a pass rate without sitting an exam under these circumstances but it contributes to personal fulfillment by means of providing individual work organized by the teacher.

With the development of computer technologies some tasks are carried out in automatic mode, which simplifies the process of assessment and eliminates subjective performance evaluation.

The conducted research work has shown that the score allows us to trace the psychological characteristics of students of different performance levels, courses and forms of training. The differences in the activity of students in the learning process at various stages of training in higher institution made the authors come to the conclusion that it's necessary to organize various forms of classroom and individual work, taking into account the year of study and curriculum content.

However, during the study some problems have been revealed. One of the challenges is the complexity of the rules of performance assessment and rating system understanding, as almost every discipline has some peculiarities in scoring. At the same time, understanding the complexity of the system and providing educational learning material cause difficulties for teachers as well. The studies have shown that generic methodology of performance assessment and rating system based on work performance is not available. For an objective assessment there should be a factor of complexity of work performed or the score should be higher for the difficult, time-consuming activities. Students are more actively involved in team work, but to assess the degree of participation of each one is difficult. Evaluation of teamwork can be subjective, since chairmen, active participants and passive bystanders are involved. It is recommended to distribute the scores by the proportion of participation in the group. Students should be awarded higher scores for the project work or individual work.

Thus, the carried research revealed a number of problems which can be reduced through the implementation of authors' recommendations. It will improve the objectivity and efficiency of performance assessment and rating system at the university.

Disclosure statement

No potential conflict of interest was reported by the authors.

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