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The Interaction System Of Quality Management And Management Processes In Education.

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ABSTRACT

To achieve the required quality of training specialists in higher education institutions, freedom of creativity of teachers is necessary. Flexibility in approaches to the formation of educational content, the direct use of research results in the educational process, the use of innovative educational technologies provide graduates with the acquisition of professional and general cultural competencies that satisfy diverse and continuously changing needs of the individual. The quality management system at the university includes components of strategic management, quality management processes based on the ISO 9001: 2015 standard, including the educational process, decomposed into components related to the planning of graduates' competencies, the development and application of the standard of the university's main educational program, based on European ESG standards. The article reviewed and analyzed the most important elements of the implementation of a quality management system at the university, which are the definition of the processes, the logically ordered stages of all actions performed at the university. The developed methodology for assessing the indicators of learning processes is presented, which allows quantifying all activities of the university. Obtain uniform performance indicators for each process and a single integrated result of the activity as a whole.

Keywords: standards; processes; quality management system; performance; monitoring.

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INTRODUCTION

To manage the quality of higher education requires a certain standardization and regulation of educational activities in the university, ensuring reproducibility and continuous improvement of the educational process. That is, a quality management system (QMS) is needed, based on modern methods of process management. Obviously, the university's management system should be organized so that it establishes and supports certain regulations, but does not limit academic freedom of teachers, but rather stimulates their creativity, a variety of approaches to teaching, activates the joint work of teachers and students. The most important element of the introduction of the QMS at the university is the definition of the processes, the logically ordered stages of all actions performed at the university [2].

In determining the processes, the main difficulty lies in the fact that the university, providing an educational service, at the same time produces products, which is its graduate, and during its life cycle, these products take an active part in their production [1]. Students should be considered not only as raw materials (when entering a university), but also as products processed by the educational process (when studying at a university), and as an end result (when graduating from a university). As part of the educational process, students should also be considered as internal consumers of educational, social and other services.

MATERIAL AND METHODS

The main task for each organization is to obtain the final result, expressed in the form of a product, which is the quality of education of a graduate. It will be determined by the demand for our specialist in the labor market, as well as the number of applicants wishing to enroll in a university.

The key task of the effectiveness of the functioning of the quality management system is the transformation of the activities of the university into processes with their subsequent measurement [3]. (By selecting the best performance indicators for each process.)

For a higher educational institution we offer the following list of processes:

1. Strategic management
2. Marketing research of the market of scientific, educational services and the labor market
3. Design and development of educational programs
4. Pre-university training and admission of students
5. Implementation of basic educational programs
6. Educational and extracurricular work with students
7. Research and innovation
8. Personnel management, (personnel management)
9. Infrastructure management and educational environment
10. The rate of adding value in the learning process

The developed methodologies for assessing the indicators of learning processes make it possible to quantify all activities of the university. Obtain uniform performance indicators for each process and a single integrated result of the activity as a whole.

RESULTS AND DISCUSSION

For example, consider a few of these processes:

1. Strategic management:

$$R_1 = \frac{Mv}{M} = \frac{80}{110} = 0,72 \quad (1)$$

Mv– number of completed activities during the reporting period;

M – total number of events for the reporting period.

$$R_2 = \frac{C_v}{C} = \frac{30}{50} = 0,6 \quad (2)$$

C_v – the number of completed goals for 4 months (from September to December);
 C – total goals.

$$R_3 = \frac{C_{r.c.}}{C} = \frac{18}{58} = 0,31 \quad (3)$$

$C_{r.c.}$ – Number of university departments that implement strategic quality goals;
 C – total number of units.

$$R_x = 0,3R_1 + 0,4R_2 + 0,3R_3 \quad (4)$$

$$R_x = 0,3*0,72 + 0,4*0,6 + 0,3*0,31 \quad (5)$$

1. Management of professional potential. Staff management.

Competence level of teaching staff

$$R_1 = \frac{Ch_{ch.p.}}{Ch} = \frac{558}{1317} = 0,42 \quad (6)$$

$Ch_{ch.p.}$ – number of teachers employed in the implementation of innovative projects under contracts with enterprises;

Ch – total number of teachers.

The level of motivation of faculty

$$2016 \quad (7)$$

$$R_2 = \frac{Z}{Z_p} = \frac{12,5}{24,6} = 0,50 \quad (8)$$

$$2017 \quad (8)$$

$$R_2 = \frac{Z}{Z_p} = \frac{18}{30} = 0,60 \quad (9)$$

$$2018 \quad (9)$$

$$R_2 = \frac{Z}{Z_p} = \frac{20}{30,7} = 0,065$$

Z – average faculty salary;

Z_p – average salary at regional universities.

According to Rosstat:

In 2016, the average monthly salary of the faculty reached 28 tr.

In 2017, the average monthly salary of faculty members reached 30 tr.

In 2018, the average monthly salary of faculty members reached 30.7 tr.

From the graph of the dynamics of the level of motivation of the faculty for the last 3 years, we can conclude that wages are increased by an insignificant number, it is also necessary to take into account here that the standard of living of the population in the country increases, and with it increases inflation. Thus it turns out that the salary of the faculty stands still.

1. Pre-university training and admission of students

$$R = \frac{Pvh.}{USE} = \frac{60}{80} = 0,75 \tag{10}$$

Pvh—quality of knowledge in entrance control.
 USE – quality of knowledge on the USE.

According to the university's reception company, as well as on the results of students' entrance control in the specialty "Quality management", the pre-university training of students is 75% out of 100%. And this means the lack of knowledge of students obtained as a result of the passage of the school program.

2. Adding value when teaching students on the example of the department "Technology of production and processing of livestock products of the 2016/2018 school year"

$$2016-2017 \quad R = Ch_n / Ch_{tqp.} \tag{11}$$

$$R_1 = 95 / 12 = 0,77(77\%)MYK101 \tag{12}$$

$$2017-2018 \quad R_2 = 56 / 88 = 0,63(63\%)MYK201 \tag{13}$$

$$R_2 = 37,8 / 88 = 0,42(42,9\%)MYK102$$

$$R_1 = 80 / 122 = 0,65(65\%)MYK101 \tag{14}$$

$$\tag{15}$$

According to the results of monitoring the attendance of classes by students, the areas of "Quality Management" training can be concluded that attendance drops significantly, and from this it follows that value added when teaching students is significantly reduced.

CONCLUSION

The application of the considered elements of the monitoring system will allow for timely and in the right direction to adjust the processes of the quality management system, improving them. The fact that a quality management system is in place at a higher education institution can be fixed by finding the integral grade for all criteria outside a certain "zero" zone. At the same time, the admissible values of criteria evaluations should be established by an expert on the basis of a thorough average statistical analysis of the state of quality management systems in various universities of the country. It is necessary to develop a regulated procedure for organizing self-assessment (evaluation) of the university's quality management system based on the adopted model. The developed model and procedure for assessing the availability and effectiveness of the quality management system should be of a recommendatory nature, both for universities and for experts participating in the certification process of the university, and have a certain tolerance to other possible models of quality management systems, for example, models corresponding to ISO 9001. The development and implementation of the system in an organization should be voluntary, it is impossible to impose on universities a single model of the quality management system, although it can and should be recommended to blow.

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