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ELECTRONIC INFORMATION-EDUCATIONAL ENVIRONMENT AS A QUALITY OF LIFE IMPROVEMENT FACTOR

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Abstract

The article discusses the issues of improving the quality of life in the region. An important component of the quality of life is the quality of education. As one of the ways to improve the quality of education the authors see the development of the electronic information and educational environment in the educational organization. The article considers the concept of “quality of education” as a component of the quality of life of the population; the role and capabilities of the electronic information and educational environment as a factor for the development of the educational organization itself and the improvement of the quality of education. The article also presents the results of a survey of graduates and participants of additional education programs at one of the universities in Russia. This questionnaire contained questions regarding satisfaction with the quality of educational services in the context of the basis for improving the quality of life in the region, namely: satisfaction with the quality of education in general, the contents of programs, compliance with the requirements of the modern market, and the quality of certain educational services. Also, the research questions were aimed at identifying satisfaction with the professional competence of teachers, different university facilities and premises, equipment of the educational process, class schedules, food quality, and living conditions in the dormitory. The relationship between satisfaction with the quality of education and the geography of employment of university graduates and participants of additional education programs was analyzed.

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Keywords: Consumers of educational services, electronic information and educational environment, employment, quality of life, quality of education.



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1. Introduction

According to the definitions of many authors, for example, Filyukov (2009), quality of life is “an objective-subjective characteristic of a person’s existence, its development, as well as subjective perceptions and assessments of satisfaction with his life” (p. 74). It should be noted that the quality of life acts not only as a strategic goal of management, but also as the most important indicator of the socio-economic development of a particular region or country as a whole. The quality of life is a complex structure of the interconnections of its components, the most important of which are the quality of the environment, the quality of public health, the quality of education, etc.

According to the Federal Law “On Education in the Russian Federation” dated December 29, 2012 N 273-FZ, “quality of education” means a comprehensive description of the educational activity and training of a student, which is expressed in the degree of its compliance with federal state educational standards, as well as the educational needs of a student” (Federal Law “On education in the Russian Federation” N 273-FZ, 2019, 6).

It should be noted that the requirements prescribed in the standards are stated in regulatory documents, while the expectations and needs of the population in achieving a certain standard of living and consequently, in the educational services offered to achieve this level are individual, and they do not always match completely. The requirements of the regulatory framework governing the educational process, the requirements of modern society for the quality of education, have led to the search for ways to improve the quality of education and its management. It also requires the search for special approaches to the organization of the educational process.

2. Problem Statement

According to Donina and Vezitii (2019), marketing research on the quality of education reflects the satisfaction of subjects of the educational process with the learning outcomes and also studies the mechanisms for their achievement. Marketing research of educational services includes such marketing activities as studying the educational needs and expectations of consumers, identifying and shaping public opinion, studying the infrastructure and technological prospects of markets (including the labor market), informing and advising participants in the educational process, developing and implementing educational programs, which are most fully in line with their expectations (Donina & Vezitii, 2019, p. 18).

Many Russian and foreign researchers dealt with the problem of improving the quality of education as a component of the quality of life of the population. By the quality of education we also mean satisfaction with the result of education, which implies mastering the main components of human culture, social experience, the latest fundamental knowledge, the ability and willingness to use the acquired content of education to successfully solve practical problems, which will further improve both the quality of an individual life and the population in general.

According to Potashnik (2000), the quality of education consists of universal competencies. Among them, he distinguishes the following ones: informational (the ability to search, analyze, acquire information to solve problems), communicative (the ability to effectively collaborate with other people), self-organization (the ability to set goals, plan, take responsibility for health, make full use of personal

resources), self-educational (willingness to design and implement one's own educational trajectory throughout life, ensuring the success and competitiveness of oneself and one's family) (Potashnik, 2000, p. 56). We would agree with Potashnik (2000) that the quality of education should be correlated with the student's capabilities, where the quality of education appears as "the ratio of goal and result, as a measure of achieving the goal, provided that the goal is set and predicted in the zone of the student's closest development" (p. 64). The quality of education is considered by this author from the perspective of the student's personality development. We consider it necessary to include in this definition also the assessment of the organizational and pedagogical conditions in which personality development takes place.

The quality of education, among others, has such important characteristics as the content of the educational process that meets regulatory and personal requirements, modern practice-oriented teaching methods and technologies, a modern material and technical base, a highly qualified staff structure, and the provision of various educational services taking into account various educational needs and opportunities. Thus, the quality of education is the most important component of the social sphere, which determines the status and effectiveness of the educational process in society, the degree to which it meets the needs and expectations of society in terms of the development and creation of both civil and professional competencies of a person as an individual.

It is important to note that a high assessment of the quality of education affects the image of the educational organization. According to Article N 95 on an independent assessment of the quality of education in the Federal Law of December 29, 2012 N 273-FZ (as amended on 05/01/2019) "On Education", "an assessment of the quality of education includes an independent assessment of the quality of training of students, an independent assessment of the quality of the conditions for educational activities by organizations, carrying out educational activities" (Federal Law "On education in the Russian Federation" N 273-FZ, 2019, 156).

3. Research Questions

According to Pevzner, Petryakov, Donina and Shaydorova (2018) "today network activity in the information sphere has become characteristic not only for certain social groups or communities, but it has become an integral part life for the majority of the population in different countries of the world" (p. 498).

We believe that one of the ways to improve the quality of education, and as a result, to improve the quality of life in the region is a developed electronic information and educational environment, which can function, for example, on the basis of a university.

The concept of "electronic information and educational environment" (hereinafter EIEE) is relatively young in science. In their study "Informatization of Education. Fundamentals", Grigoryev and Grishkun (2008) defined the electronic information and educational environment as "the totality of technical means that implement the educational process" (p. 37). Iltschenko and Onufrienko (2017) in the article "Electronic educational environment as a component of modern educational services" expand this concept: EIEE is a combination of information-technical and educational-methodological means aimed at ensuring the educational process (p. 6).

Along with the means providing the educational process, we include in the EIEE software products on the basis of which the administrative and financial and economic activities of the educational institution are carried out, that provide automation of the internal structures of the educational institution accompanying the educational process. Thus, the components of EIEE are electronic, information and educational resources, information technologies, technological tools that allow full mastering of educational programs regardless of the location of the student, as well as ensuring administrative and economic activities of the educational organization. Thus, the university's EIEE as a constantly developing system is the electronic information and educational space of the university, which provides informative and information-technical support for the educational process and the administrative and economic activities of the university and increase the effectiveness of its educational and managerial activities.

We believe that the goal of the university's EIEE is to create conditions for improving the quality of education, ensuring the accessibility and effectiveness of the educational process and conducting administrative and economic activities of the university, which helps to ensure the competitiveness of the university, its attractiveness.

We consider that for the functioning of the EIEE it is necessary to create appropriate organizational and pedagogical conditions. Among the significant conditions we can distinguish the following:

- the use of EIEE by all participants of the educational process and administrative and economic activities;
- continuous introduction of new information and communication technologies to ensure the educational process and administrative and economic activities of the university;
- technical support of EIEE and information support of its participants by IT specialists (Donina, Vodneva, 2019; Donina, Vodneva, & Pervova, 2019).

University EIEE can include various sections, for example:

- educational: educational disciplines and modules, special courses, electives, programs of additional education, distance learning; monitoring and evaluation of results; advisory and methodological assistance in the context of self-education;
- research: competitions, quizzes, grants;
- database of electronic portfolios: personal achievements of teachers, students, employees;
- informational: access to library collections and resources, career counseling and image advertising;
- extracurricular activities: forums, quests, excursions, round tables, discussion platforms, youth projects, initiatives, etc.;
- administrative and economic activities: orders, instructions and other regulatory documents; network interaction, electronic document management;
- technological support: consultations and technical support by IT-specialists.

Electronic information resources, electronic educational resources, information systems can also become the components of the university's EIEE. The experience of successful implementation of the civic education of university students in the context of information diversity was presented by leading researchers in this field Pevzner, Petryakov and Shaydorova (2019) in the study "Civic education of university students in the context of information diversity" (pp. 946-947).

4. Purpose of the Study

The purpose was to study the satisfaction of graduates with the quality of educational services received, as well as to study the quality of the electronic information and educational environment of the university (FSBEI of HE "Pskov State University") and to identify the relationship between the effectiveness of the university's EIEE and the quality of education.

5. Research Methods

To identify the quality of education, a research "Professional conduct and employment of graduates" was conducted in 2019 at Pskov State University. 312 graduates enrolled in the programs of higher and additional education at Pskov State University in 2016-2018 took part in the survey. According to the research results, 51.7% of respondents believe that the education received at Pskov State University is mostly consistent with the requirements of the modern labor market, 26% of respondents are completely satisfied with their education. 10.7% of respondents believe that basically education does not meet the requirements of the modern labor market, 7.3% of respondents indicate a complete non-compliance with the requirements, and 4.3% of respondents did not give a clear answer. Thus, 77.7% of 2016-2018 graduates talk about full or partial satisfaction with the education received. Nevertheless, a certain degree of dissatisfaction with the education received was expressed by 22.3% of the graduates surveyed. It should be noted that the greatest dissatisfaction with the quality of education received was expressed by respondents who studied the areas of engineering and construction technologies (25%), natural science, medical and psychological education (20%), educational technologies and design (19.5%).

An analysis of the results showed that, in general, graduates are satisfied with the contents of the curriculum in the educational institution, to a greater extent it relates to the ratio of theoretical and practical classes. If we consider the ratio of professional and general education disciplines, a significant part of the respondents (40-50%) believes that the curriculum offers an excess of hours of general education disciplines with a lack of hours allocated to special subjects. Respondents also noted a shortage of hours for internships, which makes it difficult for graduates to adapt to enterprises in the city and in the labor market as a whole. The results of satisfaction with the content of the training program are presented in detail in Table 01.

Table 01. Satisfaction with the content of the training program, %.

Indicators	Excessive / Very redundant	More redundant than not	Enough	More insufficient than not	Not enough	Can't estimate
Number of hours allocated to professional disciplines	1.6	1.2	56.7	30.2	7.9	2.4
Number of hours allocated to general education disciplines	15.5	32.1	48.8	1.2	0.0	2.4
Amount of theoretical knowledge	2.4	12.3	69.8	8.7	4.0	2.8
Amount of practical knowledge	2.0	7.5	61.9	18.7	6.0	4.0
Number of hours for internship	0.8	7.5	38.1	16.7	9.9	27.0

Among the survey questions were those aimed at satisfaction of students with the professionalism of the teaching staff, relations with teachers. According to the results obtained, the respondents are generally satisfied with the professionalism of the teachers: 88.1% of the respondents indicated full or partial satisfaction, 87.9% of the respondents were satisfied with the relationship with the teachers.

Among the factors affecting the quality of received education is the satisfaction of students with the organization and equipment of the educational process, the quality of classrooms and other facilities. The study revealed that more than 70% of respondents are fully or partially satisfied with the equipment of sports facilities. Also, respondents are mostly satisfied with the class schedule. As for the technical equipment of the study process of a certain subject field (laboratories, computer classes, etc.), more than half of the respondents rates it as unsatisfactory. The majority of respondents note the poor condition of classrooms and premises (toilets, wardrobes, etc.). Every second respondent living in the dormitory is not satisfied with the living conditions. The results of this research are presented in detail in Table 02.

Table 02. Students' satisfaction with the organization and equipment of the educational process and living conditions in a dormitory, %.

Indicators	Completely satisfied	Rather satisfied than not	Rather not satisfied	Completely unsatisfied	Can't estimate/ Don't use it
Professional competence of teachers	34.1	54.0	7.5	2.0	2.4
The attitude of teachers to students	34.1	53.8	8.7	0.8	2.8
Classrooms (desks, chairs, interior design, etc.)	7.5	26.2	37.7	25.8	2.8
Technical equipment (computer labs, laboratories, etc.)	9.5	32.9	36.5	18.3	2.8
Sports facilities (gym, pool, etc.)	20.2	53.2	14.7	4.8	6.7
Schedule of classes	18.7	50.4	17.9	10.7	2.4
Quality and assortment of meals in student canteens and buffets	16.3	34.5	21.0	12.3	15.9
The condition of domestic premises (toilets, wardrobe, etc.)	10.3	39.7	32.9	13.5	3.6
Dormitory living conditions	8.7	18.7	11.1	15.5	46.0

Based on the data on the lack of technical equipment at the university, it can be assumed that the university might lose its attractiveness in the market of educational services. Considering the attractiveness of the university for future students, one should not miss the fact that when visiting classrooms and residential premises, applicants at the stage of acquaintance with the university could have a misconception about the educational organization as a whole, which significantly affects their choice and priorities. They will be able to evaluate the main advantages of educational services that form the potential of their life and professional paths only during the educational process and after it.

It should be noted that the country's industry, science and education are focused on the development of modern innovative areas and technologies. The higher education system trains professionals for all sectors of the national economy. However, it is obvious that to develop new technological ideas, to train modern practice-oriented specialists is not possible without modern technical equipment of the educational process.

An indicator of the high quality of higher education is, in our opinion, the employment of graduates. An important indicator for the development of the region is that specialists are in demand in the labor market of their region. It is equally important that the educational services offered by the university are of high quality and are in demand by applicants from other regions, which would strengthen migration processes, partnerships, and ensure the development of additional educational services market for employees of partner enterprises and individuals who are interested in these services.

As a part of the above-mentioned survey, one of the objectives was also to study the geography of employment of graduates. According to the results of this survey, among the surveyed graduates of 2018 75.9% of respondents were employed in Pskov, 9.8% of respondents were employed in the regions of the Pskov region, 8.2% found a job in St. Petersburg, 2.9% in Moscow, 2.4% – in other regions of Russia, 0.8% – in other countries. The data obtained allow us to speak about the relevance of the qualifications obtained both in the Pskov region, in other regions of Russia and abroad. However, it should be noted that 31% of the surveyed graduates came from the districts of the Pskov region, while only 9.8% returned to their districts, which indicates an outflow of specialists from the districts to the regional centers.

According to the results of the survey, it was also revealed that at present only 2.24% of all the graduates surveyed (7 people) work remotely.

6. Findings

In accordance with the Federal State Educational Standards of Higher Education, the university's EIEE should provide not only access to curricula, work programs of disciplines (modules), internships, publications in electronic library systems and electronic educational resources, but it is also designed to trace the educational process, to record the results of students' interim certification and mastering the basic educational programs, to ensure the interaction of participants in the educational process through corporate network and / or Internet.

The research results allow us to identify several problems, the solution of which could help to improve the quality of education, and, consequently, reduce the outflow of specialists from the region. It should be noted that a number of researchers are engaged in the forecast of the development of informatization of education. Thus, researchers Robert, Mukhametzyanov, Arinushkina, Kastornova and

Martirosyan (2017) in their study “Forecast of the development of education informatization” (p. 33) consider it expedient to develop an electronic information and educational environment with the aim of increasing the educational attractiveness of an educational organization.

A survey of students of all forms of training, as well as students of additional education program (about 5,000 students in total), conducted at Pskov State University in 2018 and aimed at evaluating the work of the university’s EIEE, showed that, in general, the functioning of EIEE contributes to an increase in efficiency and quality educational process, research activities, satisfaction with the quality of education.

Students actively use such electronic information resources as Pskov State University web-site which includes the web-pages of the entrance selection committee, library and structural units of the university, the PLN-Univer section on the website, the Pskov News Feed electronic periodical, and the official group of Pskov State University student community in the social network “VKontakte”. Among the popular electronic educational resources, electronic library systems and electronic libraries were noted, as well as the information systems “Reference Legal System Consultant Plus” and “Guarantor”. According to the results of the above-mentioned survey, the electronic interaction of participants in the local network of the university during the educational process remains problematic. Among the possible reasons for this, one can point out the low network activity of some teachers and students, reluctance to use their free time for working communication.

It should also be noted that electronic document workflow among the departments of the university is quite effective. But students speak about their low network interaction with the university departments, preferring, as before, personal communication. These results are partially confirmed in the study by Fikhtner (2019) “About the system approach to the problems of networking” (p. 73-74, p. 77).

7. Conclusion

The research showed that the well-developed electronic information and educational environment of the university is one of the important factors in improving the quality of life in the region, as it provides ample opportunities for the implementation of various educational needs of the population, thereby making the university attractive in the market of educational services both within the region and beyond. Improving the quality of education helps to increase public satisfaction, reduce the outflow of citizens from the region, which may indicate an improvement in the quality of life of the population and, as a result, contribute to the development of the region. However, it should be noted that for the effective functioning and use of EIEE, its systematic updating, software and hardware support and maintenance, free access and network interaction are necessary.

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