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Research paper



The Basic Department as the Adaptation Tool of Students to the Professional Environment

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Abstract

The paper is devoted to the issues of students' adaptation to the professional environment. Professional adaptation is considered as a combination of two aspects: social and production. It is determined that the use of basic departments with applied bachelor programs can be one of the effective ways for preparing students who can easily adapt to some professional environment. As an example, the experience of the Department "Automobiles and Automotive Service" of South Ural State A university under Reginas company group is considered. A questionnaire was conducted, in which students enrolled in this basic department and students from related specialties took part. As a result of the research it was proved that the training at the basic department develops in students a steady interest and understanding of the importance of their future profession, which makes professional adaptation easier.

Keywords: *Applied bachelor program; Basic department; Educational process; Employer; Professional adaptation.*

1. Introduction

It is considered that there is the gap between a teacher and a student in the remote format of education. The information exchange goes into an information virtual field. However there is another form of distancing – the gap between campuses of training along with changes in the academic environment. Basic Department is remote learning mechanism and the element of open educational system that is developing in Russia nowadays.

Today the employers need not just highly qualified specialists; they need workers who are capable of constant self-training, self-development and active adaptation to the rapidly changing environmental conditions. Previously, alumni could gradually adapt to the professional environment during internships and in the initial period of work, when the employer does not require an instant result from young specialists. The graduate adapted to the professional environment step by step and improved their skills according to the required level of competence and professionalism. As a result, until a university graduates fully master the required skills and become able to effectively perform their professional duties, a rather long period of adaptation takes place, during which the companies have to "finish their education". This leads to additional costs for the employer, and in addition, the probability of successful adaptation by an alumnus who gets a job, with further consolidation at a particular enterprise is relatively small. In conditions of a competitive labor market, this situation becomes impossible.

The conceptual drawback of the existing model of training specialists is the growing gap between the goals and objectives of education system and the needs of employers. As a result, the requirements for employed graduates begin to exceed the level of knowledge received by students at the university, which significantly complicates the process of adaptation to the professional environment.

This problem is suggested to be solved by integrating the efforts of higher education organizations and employers on the basis of the basic departments.

2. Methodology

"Adaptation" is defined in the literature as a process of interaction between a person and the social environment, as a result of which he develops behavior strategies that are adequate to the current conditions. This general definition also applies to the process of professional adaptation.

Professional adaptation in the broadest sense is a process of adaptation of an employee to the conditions of the external and internal environment [1]. Many researchers believe that the process of professional adaptation begins immediately when work starts. But, taking into account the fact that employers are placing ever higher demands on candidates for jobs (such as having work experience in the specialty, high level of productivity, motivation, etc.), graduates have less and less competitive advantages, compared to candidates, who have work experience. In this regard, the objective of higher education is not only to form the necessary competences among the students, but also to prepare them for adaptation to a professional environment. In the study, the adaptation of students to the professional environment will determine the process of ***adapting*** students ***to the future profession*** and to the conditions of their professional work.

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In sociology and economics, it is practiced to distinguish two key aspects in professional adaptation: social and production [2]. Each of these aspects has independent application areas.
Social adaptation is associated with the adoption of a new employee of the philosophy and culture of the enterprise, the process of joining the team. Production adaptation is realized in solving such a problem as the formation of a new specialist with the required level of productivity and quality of labor in a shorter period of time [3].
The main factors, influencing social adaptation, are the student's personal abilities for self-development and self-education, his character and temperament, emotional-volitional qualities, motives and interests in the profession [4, 5, 6].
As the factors influencing the production adaptation, the general educational preparation and the general level of the student's competencies, the content and labor intensity of the educational program, the forms of interaction between the university and the employers are singled out. Factors affecting the processes of professional adaptation, as well as its results are shown in Fig. 1.
It should be noted that the modern system of higher education as a whole does not have the objective of creating conditions that facilitate students' professional adaptation in the future workplace.
Currently, the most common tools that should facilitate the adaptation of students to a professional environment are:

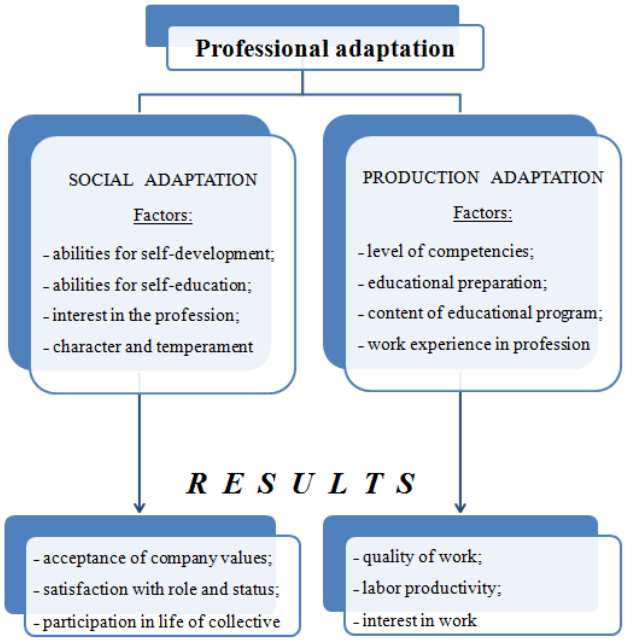


Fig. 1: Types and results of professional adaptation

- Educational and productive practice.
- Pre-diploma internship.
- Final qualifying work.

However, these tools are not effective, since they have a sporadic character. Students immerse themselves in the environment of their future activities for a short while, as a rule, during this time they only manage to collect documents for writing reports or performing an individual task. Students do not have time to completely immerse themselves in the environment, as a result of which social and production adaptation have low rates. One of the solutions to this problem is the creation of basic departments in universities. The idea of creating basic departments has been present in our country for a long time. Some of the first basic departments were created at the Moscow Institute of Physics and Technology. So-called industrial departments of universities may be considered as foreign analogues of the basic departments. In most cases, they work directly with many companies in a particular industry [7]. Industrial departments organize training and internships for students in companies, invite teachers from business, help companies to select students to participate in projects. Unlike industrial departments, the basic department is a site sometimes located not in the university, but at the enterprise, for cooperation of the university with one particular company or scientific institute, and the cooperation framework in each case is formed individually [7, 8].
The basic department, organized with a large enterprise, allows students to get acquainted with the features of their profession on live examples without a break from the educational process. In addition, in the learning process, students have a real opportunity to participate in the development of practical solutions for improving the activities of the enterprise. All this creates the prerequisites for easier adaptation of students to professional activities.

3. Research

The basic department “Automobiles and Automobile Service” of the South Ural State University was established on the basis of one of the largest automobile holdings in the Urals - Reginas company group.
In one of Reginas service salons training room with a total area of 1 000 sq. m has been equipped. The room was equipped with a lecture hall, a computer classroom and a laboratory. The educational process for students, studying on this program of applied bachelor's degree, were slightly changed in comparison with the academic bachelor's program.
In the curriculum of first-year students, an elective was added, which was called “Practice”. Within the elective, students spent one of the six days of training in the company. These classes consisted of laboratory classes and excursions to get acquainted with various divisions of the enterprise. The goal of this stage was to introduce students to different aspects of the chosen field of activity and to generate their interest in further training.
In the second year, students spent two out of six days at the company and in the training center. During this time, the students were able not only to get acquainted, but also to take part in the activities of all subdivisions of Reginas: service, body repair, sale, marketing service. Students were given simple instructions that needed to be carried out. At this stage, the task that was put before the base and the enterprise was related to the professional orientation of students. At the same time, a rating of students was compiled. The rating answered two questions:

- How did the head of the division, where student had been practicing, evaluate his work?
- Whether this division is ready to accept him for work in the future?

Thus, the students received feedback, and they could find out how interested the particular division is in them.
In the third year students spent three days at the enterprise and in the training center. During this time, students underwent a large training in color, conducted by InterColor, on the basis of the laboratories of the training center. Disciplines for choice were studied within specific departments. To do this, the training group was divided into small subgroups of 3-4 people. Students had the opportunity to study and work alongside the staff of the enterprise. This allowed them to get acquainted with the culture that was formed at Reginas and with the features of the production process.
The students of the fourth year also spent three out of the six training days at the enterprise and in the training center. They studied the vast majority of disciplines for choice at the enterprise, within specific departments.
A questionnaire was conducted to determine whether such way of organizing the educational process can increase the adaptation level of students to the professional environment. The survey involved two groups of students: experimental and control. The experimental group included 38 students of the 3rd and 4th year (18 and 20 people, respectively) who study at the basic department of “Automobiles and Automobile Service” under the applied bachelor program. The control group included students studying in the adjacent area of training at the Department of Automotive

Transport (24 third-year students and 26 fourth-year students) under the academic bachelor program.

The students who are members of the control group were chosen in such a way that the specificity of their future professional activity was close to that of the students of the experimental group.

Students who are members of control and experimental groups were asked to provide answers to a number of questions and assess their level of adaptation to the professional environment. The questioning was conducted twice: the first time after the end of the winter semester and the second time after the practice. For third-year students, it was a production practice, which they passed at the enterprises, and for the fourth-year students it was pre-diploma internship.

The questionnaire consisted of three blocks. In the first part of the questionnaire, students were asked to answer general questions: age, gender, level of education, place of residence, and so on.

The second set of questions concerned the assessment of students of their level of social adaptation to the professional environment. To evaluate the variables, the Likert scale was used. Each point of the scale has five categories for a response from "absolutely disagree" (1 point) to "completely agree" (5 points).

The third set of questions was connected with the assessment of production adaptation to a professional environment. Basically, the questions were drawn up in such a way that the student could assess his willingness to work with machines and mechanisms, special means of labor and the level of professional competencies formed. To evaluate the variables, the Likert scale also was used in this case.

4. Results and Discussion

The results of the survey were analyzed in two aspects.

First, we compared the assessment of the level of adaptation to the professional environment among the third and fourth year students of the control and experimental groups, in order to determine the influence of the basic department on these indicators. Secondly, the results of the same academic groups were compared before the practice at the enterprise and after that, to determine how effectively the practices allow students to adapt to a professional environment.

The results of the questionnaire of the control and experimental group after the winter term (the first section) are presented in Table 1.

In general, based on the results of the questionnaire, it can be concluded that in the experimental group the level of professional adaptation is much higher. The difference between the assessments of the professional competence level among third-year students is more than two times. If we compare the professional adaptation levels of different year students, then both in the control and in the experimental groups percentage of professional adaptation among fourth year students is higher than among third year students. This is connected with the fact that the last year students begin to study special disciplines, which form the necessary professional competencies. This tendency is especially well observed on the example of production adaptation.

It should be noted that when assessing social adaptation, the students of the experimental group highly appreciated the satisfaction with the chosen specialty. The students noted that they are quite good at representing the characteristics of their future profession and career prospects. Students of the control group on the contrary, doubt the chosen specialty, and associate this with insufficient knowledge of the profession characteristics. One student of the control group said in his questionnaire: *'Over the past six months, I received a lot of information about how the automotive industry functions, but I do not understand how this will be related to my future work.'*

Table 1: Results of the survey of the control and experimental group. The first section

Types of adaptation	Experimental group		Control group	
	3 year	4 year	3 year	4 year
Social adaptation	52%	60%	20%	34%
Production adaptation	58%	72%	26%	48%
Total	55%	66%	23%	41%

In addition, it should be noted that almost all the students of the experimental group agreed with the statement 'After graduating from the university, I will work according to my specialty.' 75% of interviewed students absolutely agreed with this statement, 20% rather agreed, and only 5% found it difficult to answer. In the control group, there were no more than 30% of such students.

A certain advantage for the professional adaptation of the students of the experimental group is the constant contact with some mentors, who are the employees of the enterprise. The head of the Reginas company group notes: *'Mentors, working with students, also perform a large educational work. They help them to master the corporate culture, to understand the philosophy of our company. In fact, this removes the need for their further adaptation in the enterprise.'*

The results of the questioning of students after passing the production and pre-graduation practice (the second section) are presented in Table 2.

The results of the questionnaire made it possible to conclude that such a tool as production/pre-diploma practice does not have a statistical effect on the level of adaptation to a professional environment. As already noted, this is due to the fact that the practice has episodic nature. During the training at the basic department students have the opportunity to participate in the life of the enterprise weekly and to get acquainted with the peculiarities of the work of different divisions. Thus, the process of adaptation is more gradual and, as a result, easier.

Analyzing the results, it should be noted that the social adaptation level of fourth year students after passing the pre-diploma practice has not changed, in contrast to the 3third year students.

The supervisor of the 4th year students who are studying at the basic department believes that the difficulties of social adaptation may be due to the fact that the employees of the enterprise begin to perceive students as competitors: *'There is an internal community of mid-level managers who begin to feel competition in our students. They didn't feel it in the first year, they didn't take the students seriously in the second year either, but now, especially after the pre-graduation practice, the employees start to separate them from the collective. In some sales departments managers began to resent when students started to earn. They asked why we allowed students to earn money. Therefore, of course there are some problems.'*

Table 2: Results of the survey of the control and experimental group. The second section

Types of adaptation	**Experimental group**		**Control group**	
	3 year	***4 year***	***3 year***	***4 year***
Social adaptation	56%	60%	24%	33%
Production adaptation	64%	86%	30%	52%
Total	60%	73%	27%	43%

5. Conclusion

The purpose of this research was to study the experience of using the basic department as a tool for adapting students to the professional environment. The object of the research was students studying at the basic department "Automobiles and Automotive Service" of the South Ural State University, formed under Reginas company group, as well as students of related training areas. In total, 88 people took part in the experiment.

The results of the experiment showed significant statistical differences between the control and experimental groups in the level of professional adaptation. Satisfaction with the chosen specialty and the correspondence of future work to the inclinations and interests

of the students of the basic department turned out to be much higher than those of other students. In addition, in the experimental group, the readiness of students for professional activity turned out to be higher.

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