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**FORMATION OF PROFESSIONAL COMPETENCE BY
STUDENTS IN THE CONDITIONS OF DUAL TRAINING**

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Abstract

Modernisation of vocational education in connection with the needs of the transport sector and ensuring its competitiveness in the labour market is determined by the Federal Law "On Education in the Russian Federation", the National Doctrine of Education in the Russian Federation, and Russian Government Order No. 349-r of 3 March 2015 "A set of measures aimed at improving the secondary vocational education system for 2015-2020". Enterprises, for its part, lead the way in the education and practical training of future young professionals. At the moment, one of the significant problems is that enterprises primarily require specialists with available experience in this industry, rather than young professionals with a baggage of more modern knowledge, although they often lack experience in applying them in the production process in real conditions. The training of a young railway transport specialist is considered invaluable if students pass training and industrial practices that allow them to acquire real-life skills and consolidate the theoretical knowledge they have gained at the technical school. The economy of the state requires qualified railway transport specialists who can professionally solve the production problems they face in practice, and solve the problems that arise in the course of their work without assistance. All this will not only be possible if students acquire knowledge, skills and work experience, but also with the individual qualities of future professionals and the modern qualities of secondary vocational education, the federal state educational standard, competence, professional competence and dual study.

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1. Introduction

The system of training qualified specialists in secondary vocational education (hereinafter referred to as SVE) is a topical issue, implemented through the introduction of dual training in SVE based on approved Order No. 349-r of 3 March 2015, which provides for the "consistent introduction of a practice-oriented (dual) model of training in SVE" (Order of the Government of the Russian Federation..., 2015). Dual training is focused on real production, development of programs for training middle-level specialists (hereinafter referred to as PPSSP). The technical school clearly fits into the system of continuing education and is designed to meet the needs of society and railway transport enterprises in training.

The level of training of young specialists in educational institutions of secondary vocational education is directly dependent on the amount of knowledge acquired by students in the process of mastering the theoretical course, developing and consolidating skills in practice, acquiring skills in the process of industrial training and passing industrial practice enterprises, for their part, are a leading link in the process of training and practical training of future young professionals. Invaluable in the process of training, a young specialist is the passage of training and industrial practice by students, which allows them to acquire real work skills, consolidate the theoretical knowledge obtained at the technical school (Decree of the Government of the Russian Federation..., 2000).

In the economy of our state, there are processes in which the development of a sufficiently updated order of organization of production activities is carried out with the introduction of dual training. It is possible to implement this task in reality only if an effective system of education and training of future specialists works in conjunction with industrial enterprises that uses the direction of global development.

In these conditions, the search for new approaches to training young specialists for their activities at specific workplaces of this enterprise is updated, so that they meet the required competence, enterprise, flexibility, and ability to adapt to the production process in real conditions.

The question of forming the professional competence of specialists in the field of transport the development of a model for the organization of educational and industrial practice of trainees in the course of dual training was considered in the work A. G. Bermus, E. F. Zeer, T.K. Klimenko, A.N.Leybovich, M.A. Shuvalova and other researchers (Bermus, 2005; Shuvalova, 2015; Zeer, 2008).

2. Problem Statement

The main problem with the poor quality of training of railway technicians is the gap between the requirements of the employer and the services provided by the educational institutions of the SVE. In our opinion, it can be noted that currently education requires the formation demanded by modern labour market of competent professionals is supported by the fact that the new generation of Federal state educational standards (hereinafter-GEF) based on the strategy of forming the content of education "from the result" through the implementation of the dual training. (Spasskaya, 2008).

Theoretical analysis of the problem of formation of professional competence of students the act, the requirements of Federal state educational standard of new generation and employers, the study of the state of the educational process and practices of the SVE for implementation of competence-based approach has allowed one to reveal a number of contradictions among the following:

- the need for highly qualified personnel in society and the lack of readiness of graduates to work in real jobs in accordance with the requirements of the employer;
- the need to develop professional competence reflected in the new generation of Federal state educational standards in the system of secondary vocational education and the limited opportunities of the traditional training model;
- the need to ensure the formation of professional competence in enterprises using dual training and the lack of development of software and methodological support in the context of dual training.

The indicated contradictions allowed us to formulate a problem that consists in identifying the conditions for the formation of professional competence of students during training and industrial practices in the conditions of dual training. These contradictions and the formulated problem served as the basis for choosing the topic of the dissertation research: "Formation of professional competence of students in the process of passing educational and industrial practices in the conditions of dual training".

3. Research Questions

The object of research is the process of formation of professional competence of students in the course of training and industrial practices.

The subject of the research is the conditions for the formation of professional competence of students in the process of passing training and industrial practices in the conditions of dual training.

Research hypothesis: the effectiveness of the formation of professional competence of students in the process of passing training and industrial practices in the conditions of dual training is determined by the implementation of the following conditions:

- the model of the organization of educational and industrial practice of students of SPO is developed by the example of PM. 01 Organization of the transportation process (by type of transport);
- it uses software and methodological support designed to meet the requirements of the employer;
- the development of sets of individual tasks is carried out in the course of training and industrial practices in the conditions of dual training.

In accordance with the set goal and hypothesis have defined the following objectives of the study:

1. to explore the concepts of "dual training", "competence" and "professional competence";
2. to analyze the process of forming professional competence of graduates of secondary vocational schools;
3. to determine the main directions for improving the organization of educational and industrial practices of students in the SVE system when implementing dual training;
4. to develop a model for the formation of professional competence in the organization of educational and industrial practices of students of vocational schools by the example of PM. 01 Organization of the transportation process (by type of transport);
5. to develop a model of interaction between theoretical and practical training of students at enterprises in the conditions of dual training;
6. to analyze the implementation of the model of professional competence formation and the model of interaction between theoretical and practical training of students at enterprises in the conditions of dual

training by the example of the working curriculum PM. 01 organization of the transportation process (by type of transport);

7. to develop software and methodological support taking into account the requirements of the employer when implementing dual training.

4. Purpose of the Study

The purpose of the study was to identify the conditions for the formation of professional competence of students in the course of training and industrial practices in the conditions of dual training and in experimental work in the course of practical training to check their effectiveness.

5. Research Methods

- The methodological basis of the research is based on the following approaches:
- system-activity approach, which allowed us to characterize the professional training of highly qualified specialists and reveal the basics of the regularity of educational activities;
- competence-based, which determines the result of professional education in the form of professional competencies.
- The theoretical basis of the study was:
- scientific and practical foundations of dual learning research;
- theoretical ideas of features of dual training in the system of vocational education and training;
- theories about the sense and essence of human activity;
- teaching the basics of student-centered learning;
- theoretical foundations of professional training;
- theoretical foundations for the development of dual education;
- the concept of governance of secondary vocational education;
- provisions of the competence approach;
- scientific and methodological provisions on the essence of the professional training process; assessment of the quality of professional education;
- research on quality management of professional education.

6. Findings

1. A model has been developed for organizing training and production practices for students in secondary vocational education in the conditions of dual training by the example of the working curriculum PM. 01 organization of the transportation process (by type of transport).

2. Software and methodological support developed in accordance with the Federal state educational standard, taking into account the requirements of the employer, consisting of a model for the formation of professional competencies. This includes the main requirements of the standard, the employer, the requirements of the professional standard; the goal, tasks, general and professional competencies formed; components of competence formation; methodological approaches; organizational and pedagogical

conditions; pedagogical technologies. It also involves evaluation tools; quality assessment; training program for middle-level specialists; working training programs for training and production practices; funds of evaluation funds; methodological manuals on the organization of practical training; guidelines for practical training (Melnikova, 2019a).

3. A model of interaction between theoretical and practical training, students at enterprises in the conditions of dual training includes the connection of theoretical and practical knowledge; the connection of the process of mastering knowledge with the process of using it to solve professional problems. This also concerns knowledge of science and technology that provides technical conditions and expanding opportunities for solving professional situational problems; the connection of knowledge with reality.

4. Developed sets of individual tasks for the organization and passage of training and industrial practices in the conditions of dual training consist of tasks on practice, individual tasks on practice, diaries on practice, reports on the results of practice, reviews on practice, characteristics from the employer to the student on the results of practice.

7. Conclusion

Questions of formation of professional competence of students in EI SVE in the process of passing educational and industrial practice in the conditions of dual training are relevant. In the practical solution of this issue, we came to the conclusion that at all stages of the formation of this quality, an important role is played by educational and industrial practice (Melnikova, 2019b).

Practice is a specifically human, conscious, goal-setting, sensory-objective and material activity.

Production and training practice of the training-future technician has the following goals (GEF): "consolidation of theoretical knowledge and acquisition of skills, development of technological processes, equipment elements, laboratory testing methods, familiarization with materials and documents of the functioning of production units". Emphasizing the importance of the subjective component of industrial practice, modern researchers offer options for humanized educational standards of technical specialties for training "elite specialists" who have an "individual style of professional activity". The success of the process of formation of professional competence of future specialists will contribute to the following conditions. The use of software and methodological support is tailored to the requirements of the employer; primary role in formation of professional competence of students in the specialization with the passage of educational and industrial practices in terms of the dual training plays individual assignments and assessment sheets.

We put forward the hypothesis that most of the problems in the implementation of dual training in the process of training and production practice in the system, linked with the desire to use in the educational process for the effective formation of professional competence of future specialists, are the most flexible.

Confirmation of this hypothesis, both based on the results of the analysis of sources and on the results of our own research, allowed us to achieve this goal. As a result of the research, a model for the formation of professional competencies among students and a model for the interaction of theoretical and practical training at enterprises in the conditions of dual training were developed. The educational and methodological complex has been refined and refined, and a package of individual tasks has been developed. The results are summarized in graphs and diagrams.

Therefore, as a result of the research, the following conclusions can be drawn: by the end of the training practice, it was revealed that the majority of students form professional skills and knowledge, acquire initial practical experience for the subsequent development of general and professional competencies in the specialty.

At the end of practical training, students develop professional competencies in the framework of modules on the main types of professional activity.

In this study, the levels of competence development before and after training and production practices were identified. It is proved that it is necessary to create conditions and methodological support for passing educational and industrial practice in order to form the professional competence of students in close interaction between enterprises and educational institutions.

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