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Personality in Norm and in Pathology**MANAGERIAL VECTORS OF VOCATIONAL TRAINING OF  
SCHOOLCHILDREN FOR BLUE-COLLAR OCCUPATIONS**

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**Abstract**

The relevance of the problem of vocational training is determined by the targeted, addressed, and directed policy of the state to orient schoolchildren towards blue-collar occupations, which is reflected in the federal state educational standard for secondary education. The purpose of our study is to develop and test managerial mechanisms that ensure the orientation of high school students to the professions in demand in the Chelyabinsk region and allow schoolchildren to get the profession of a worker as part of an integrated basic educational program of secondary general education. The article presents a description of the managerial strategy in the form of integration. The managerial strategy includes several stages: diagnostic (analysis of various statistical data), design (development of the basic educational program of general education and vocational training for the Forester profession, an integrated basic educational program of secondary general education), and implementation stage (implementation of the integrated educational program). The data obtained show the effectiveness of the implemented integrated educational program and its dynamically positive indirect influence on the quality of education. The implementation of such an integrated program allows us to define this managerial practice as effective and non-stencil mechanisms for organizing vocational training of schoolchildren for blue-collar occupations.

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## 1. Introduction

An obvious attribute of the country's social and economic development is the availability of quality education for all categories of schoolchildren. At the same time, it should be noted that schoolchildren including those with diverse needs, opportunities, and disabilities in health as well as parents and teachers retain a strong opinion about the lack of prestige of blue-collar occupations. Therefore, for such children and their parents, the issues of professional self-determination including those in relation to blue-collar professions are of paramount importance].

The study of scientific sources allows us to state that modern studies have a certain potential in terms of the problem under study. The most important for our research is represented by studies that reveal the psychological and pedagogical foundations of vocational guidance (Chistyakova, 2016; Nazli, 2007, Zeer, 2004 and others), including the profession of workers (Ilyasov et al., 2019; Kormakova et al., 2017).

The study of a number of scientific sources shows that the blue-collar professions, as a rule, include such types of work activities that require the employee to have professional skills; preservation in the activity of a certain share of physical labor; participation in the production process; the dominance of wage labor. In everyday life situations, the portrait of a worker is identified by schoolchildren and their parents as a person with a shovel, a pickaxe in dirty work clothes. Our research shows that both the requirements and the appearance of the worker are changing. A modern worker in a digital transformation should be able to work with high-tech and digital equipment, should be ready to master industrial robotics, read technical documentation, etc. These trends indicate a constant renewal of the institute of blue-collar occupations and the requirements for their applicants.

Therefore, the problem of preparing schoolchildren for the choice of a worker's profession is relevant and important for many reasons. These reasons include the following:

- on the one hand, the need to overcome the indifferent and often deficient attitude on the part of the designated participants to the professions of workers, and on the other, their demand in the labor market, including the regional one;
- the lack of systematic work in schools to create and "settle" the space of labor activity, which, in general, includes the creation of such a space in which parity labor relations develop; the values of labor, respectful attitude towards people of labor, productive work, and voluntary participation children in systematic life support are formed and developed. In a word, we determine this process as the formation of a value attitude towards productive work as a personal value. This process should begin in kindergarten, and at school, it should continue and expand receiving a deeper semantic interpretation. The conditions we have outlined, naturally, do not imply a mandatory choice of only blue-collar occupations by schoolchildren. But at the same time, the orientation of schoolchildren acquires an axiological color. One of the main conditions is the formation of work experience in all children and the consolidation of this process in their minds as necessary and significant (Koh & Orlov, 2020; Retivina, 2019; Skripova, 2020);

- development of topical areas of the innovative economy for the region. These areas include the lines associated with the professions of ecological content, aimed at a) the formation of an environmentally friendly worldview and behavior in students; b) training schoolchildren with a high level of environmental culture who will further organize their professional activities. In this article, we present the effective practice of orienting schoolchildren to the professions in the field of forestry in the context of organizing training for high school students in the profession of a “forester”. This profession is determined on the basis of several components: the importance of this direction; consideration for opportunities and needs of schoolchildren; the opinions of parents; productive practices developed by the school (functioning of the school forestry "LesOk" in the conditions of a metropolis).

## 2. Problem Statement

Based on the mentioned above reasons for the relevance of schoolchildren's orientation towards blue-collar occupations in the forestry sector, we identify problem areas, which include the following:

- the problem of developing strategies of schoolchildren's professional orientation including managerial ones is regionally significant due to its usefulness, practicality, and realism. Practicality, usefulness, and realism lie in the fact that the created managerial integration mechanisms are based on the minimax principle (minimal managerial actions with maximum managerial and educational effect). Therefore, these managerial vectors of vocational training using the ideas of integration is unique and simple, and can be used by any school in the Russian Federation;
- the lack of systematic and planned activity of the school, parents, social and industrial partners, and vocational training institutions in the context of the orientation of high school students to blue-collar occupations (Vachkov et al., 2019);
- poorly developed managerial mechanisms for the orientation of schoolchildren including the managerial basis for vocational training;
- the problem of developing managerial strategies for vocational training is correlated with the ideology of the Federal State Educational Standard of General Education (hereinafter - FSES) (Boldina & Deeva, 2017; Panina, 2017).

## 3. Research Questions

In the article, we present in a generalized way a description of the managerial mechanisms for organizing vocational training of schoolchildren for the demanded profession of a worker "Forester". An important goal of these mechanisms is to focus on preparing schoolchildren to choose a profession in accordance with their own capabilities and the quality of education. In this case, we consider all categories of schoolchildren, including low motivated and poorly performing students.

Below we present our reflections on the system-forming macrocomponent of education - the quality of education. The principles as rules for managing the quality of education are correlated with the positions of the concept of Total Quality Management (TQM - Total Quality Management). In this article,

we rely on research on education quality management, which we find in the studies of Edward Sallis (Sallis, 2013), Myron Tribus (Tribus, 1992). Of particular value for our research are a) the conclusions of E. Sallis related to the improvement of organizational and managerial issues and teamwork at school; b) the opinion of M. Tribus regarding the use of TQM principles in order to improve all the structural components of the school and the interactions of all its participants.

#### **4. Purpose of the Study**

The strategic goal of our research is the development and testing of managerial mechanisms that ensure the orientation of high school students to professions in demand in the Chelyabinsk region, and allow school children to get the profession of a worker as part of the development of an integrated basic educational program of general education.

Therefore, the main objectives of our research include:

- development and implementation of an innovative construct - an integrated basic educational program of general education reflecting the idea of integrating the program of general education and vocational training in the field of forestry (hereinafter the Integrated Program);
- development and accumulation of managerial mechanisms and content resources;
- development and accumulation of managerial mechanisms and content resources;

The significance of the study for the education system of the Chelyabinsk region is determined by the rapid deterioration of the ecological situation, the demand for the professions of workers in the forestry sector, and the lack of those wishing to join this profession.

#### **5. Research Methods**

We present a brief description of the managerial strategy in the form of integration. The managerial strategy includes several stages: diagnostic (analysis of various statistical data), design (development of an educational program for secondary education, vocational training, and an integrated educational program for secondary general education), and implementation (implementation of an integrated educational program).

Diagnostic stage. In educational practice, the study of the need for organizing vocational training has been carried out on the basis of an analysis of questionnaires, data from service statistics, and analysis of the employment of graduates and surveys of all participants in educational relations. For this study, a survey of schoolchildren of grades 7-11 (560 schoolchildren), their parents (120 people), and teachers (subject teachers, class teachers, psychologists, social teachers, librarian teachers, etc.) (42 teachers) were conducted during 3 years. The purpose of the diagnostics was to analyze the awareness of schoolchildren, parents, and teachers about the subject of our research.

To make managerial decisions, the following problems have been identified for schoolchildren: possible mistakes when choosing a profession; identification of factors and conditions influencing the choice of a worker's profession by schoolchildren; ranking the difficulties arising in the choice of profession; awareness of working conditions, possible social packages, educational organizations, etc.

Parents' surveys and questionnaires were built around such a question as parents' awareness of the demand for blue-collar occupations in the region, conditions, and opportunities for obtaining an education.

The analysis of questionnaires, observations, and surveys of teachers also concerned the possibility of determining the importance, role, and preparedness of teachers in the choice of blue-collar occupations by schoolchildren.

The purpose of the diagnostic stage was to establish which of the indicated factors have the greatest influence on the choice of blue-collar occupations by schoolchildren and the decline in the quality of education at school. Based on the information received, managerial strategies were used to create conditions for organizing vocational training. This managerial strategy includes the design and implementation of the integrated basic educational program for secondary general education and a basic vocational training program.

Design stage. The results of the analysis of various data obtained during the implementation of the previous stage were used in the design of the innovative construct - the integrated program. Vocational education at school is organized through the integration of two educational programs. The integration is an effective means of organizing vocational training since a) the load on the 10th and 11th-grade student does not increase; b) in our case, the list of academic subjects does not change but the section "planned results" (transfer of general professional and professional subject competences into metasubject and subject results) of the academic subjects "Economics" and "Fundamentals of Life Safety" is supplemented; c) the list of elective courses is supplemented in order to expand and deepen knowledge of "Technology of Afforestation and Reforestation", "Basics of Forestry"; "Economics of Industry and Enterprise", "Labor Law"; d) the voluntariness of high school students receiving vocational training is taken into account.

Below we describe the principles and provisions that must be followed when designing the integrated program:

- development of the integrated program in accordance with regulatory requirements;
- the focus of teachers on the development of new mechanisms for organizing the orientation of schoolchildren to blue-collar occupations (Chistyakova & Rodichev, 2012; Devyatova, 2019);
- taking into account the features of the main vocational training program and the appropriateness of their use in the context of the integration: taking into account the requirements for professional (general professional and professional subject) competencies; taking into account the list of academic disciplines, courses, modules designated for the worker "forester";
- expedient use of a) time resources (vocational training takes place without changing the timing and increasing the load for the level of secondary education); b) human resources including the potential of social partners (using the capabilities of teachers working in the school and the potential of teachers of secondary vocational education and higher education institutions); c) content resources (changes are made in accordance with the goals of vocational training in all sections of the educational program of secondary general education).

Implementation stage. The implementation of the integrated program is carried out when students receive secondary general education.

## 6. Findings

Evaluation of the effectiveness of the implementation of the integrated program as a managerial technology for organizing vocational training for high school students was carried out according to the following criteria: awareness of participants in educational relations about the professions of workers in the field of forestry; teachers' possession of strategies for organizing vocational training (table 1, table 2).

**Table 1.** Awareness of participants in educational relations about the professions of workers in the field of forestry

Diagnostics	Low level	Middle level	High level
Input	78,4%	17,1%	4,5%
Final	29,1%	41,5%	29,4%

**Table 2.** Proficiency of teachers in vocational training organization strategies

Diagnostics	Low level	Middle level	High level
Input	56,4%	30,4%	13,2%
Final	27,4%	43,9%	28,7%

The data in Tables 1 and 2 indicate the following:

- the number of schoolchildren, parents, and teachers increased significantly according to the criterion of "awareness of the professions of workers";
- the number of teachers who know the strategies of organizing vocational training has increased.

These data show the effectiveness of the implemented integrated program and its dynamically positive indirect impact on the quality of education.

## 7. Conclusion

Vocational training of schoolchildren is an important process. The described managerial strategy aimed at organizing vocational training of schoolchildren for blue-collar occupations in the field of forestry is based on the ideas of integrating the main educational program of secondary education and vocational training and, as the study shows, has a social and pedagogical effect. The implementation of such a program makes it possible to define this managerial practice as effective and non-stencil mechanisms for organizing vocational training of schoolchildren for blue-collar occupations.

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