

# Psychological readiness of high school students to choose a technical profession

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**Abstract**—The article presents the results of a study devoted to the problem of psychological readiness of high school students to adequate professional choice. In the course of work the structure of professional readiness was clarified, the readiness of high school students choosing a profession technicians was described, defined quality of individual students, conducive to adequate professional choice (autonomy, willingness to take decisions, ability to plan) and impede it (limited knowledge, neutral attitude to the situation of choice). The study showed that the readiness of high school students who choose the technical sphere of professional activity differs from the readiness of those high school students who choose the Humanitarian sciences, according to the parameters of "autonomy", "decision-making", "awareness", "attitude to the choice of profession". More independent, realistic and purposeful were those students who are inclined to choose the technical sphere of self-realization. But they were less informed about the world of professions in general, less emotionally involved in the selection process. As a result of the study, the directions of work on the formation of psychological readiness of high school students who preferred the technical sphere of professional activity are determined.

**Keywords**—*professional self-determination of high school students, readiness to choose a profession, the choice of a technical profession*

## I. INTRODUCTION

Currently, a significant factor in the development of the sphere of material production is human capital. However, the psychological readiness of young people for professional choice is not always so mature as to provide an adequate choice of profession, the result of which is the most effective contribution to the development of the industry.

Analysis of the features of professional self-determination at different age stages, made by E. A. Klimov, N. S. Pryazhnikov [1-4], showed that high school students may experience difficulties, be not ready at the time of graduation to an adequate professional choice. In this regard, the importance of career guidance measures for the diagnosis and formation of psychological readiness of high school students to choose a profession, the importance of a differentiated approach to work with students who show a tendency to choose a profession of a profile. In our opinion, the features of intellectual and personal development of high school students, expressed interest in certain occupations or fields of activity, the profile of training in high school can cause differences in the characteristics of psychological readiness for professional choice. Ignoring the fact of differences is

fraught with errors in the programs of support of professional self-determination of high school students.

The purpose of this study is to identify the characteristics of psychological readiness of high school students who choose a technical profession. Object of the research is psychological readiness to adequate professional choice subject of the research is psychological readiness of students to the choice of profession technicians.

The authors solved the following problems: first, the structure of psychological readiness to choose a profession is clarified, operational units are identified, the study of which allows to judge the readiness of high school students to an adequate professional choice; secondly, the hypothesis that high school students choosing a technical profession, psychological readiness to choose a profession differs from the readiness of those high school students who choose humanitarian professions is proved; third, the characteristics that reflect the qualitative differences in the psychological readiness of high school students with different professional preferences are defined; fourth, the directions of work on the formation of psychological readiness of high school students to choose a technical profession are indicated.

## II. METHODS

The conceptual basis of this study is the theory of professional self-determination, which explains the factors that influence the adequacy of the choice of profession.

### A. Basic approaches to determining the psychological basis of professional choice

Among the variety of theoretical approaches to the definition of psychological foundations of professional choice the most widespread is the theory of traits and factors, formed, in particular, thanks to the works of F. Parsons. Parsons emphasized that professional choice is a conscious and rational process. Satisfaction with the choice he associated with three factors: 1) knowledge of themselves (abilities, skills, interests, claims, opportunities, limitations and their causes); 2) knowledge of the requirements for professionals, opportunities and prospects for development in various areas of work; 3) understanding the correspondence of one to another [5]. H. Munsterberg in his works confirmed the need to take into account individual psychological characteristics, in particular, character logical and intellectual, ensuring success in professional activities [6].

D. Super within the framework of the theory of professional development developed by him justified the importance of awareness of the young man at the stage of

choosing a profession: the image of "I", which includes an assessment of yourself; the level of intelligence and special abilities; interests; values; attitude to work and chosen profession; needs that determine the motives for choosing a profession and success in it; personality traits that affect the form of labor behavior; professional maturity. The main characteristics of professional maturity D. Super called: the interest in making a choice of profession, using all the resources and available information; the desire to obtain new information and planning the preferred place of work; uniformity of professional preferences for a long time in one professional area; maturity of interests, independence from other people and circumstances in choosing a profession, the realism of professional positions, the correspondence of the values of the chosen work to the interests of the person; the correspondence of preferences and abilities, interests and activity of the subject [7,8].

In General, according to the researchers, the choice of profession is a conscious and rational process; it is based on the understanding of a person's own individual and personal characteristics, knowledge of the world of work, interest in making a choice.

#### Basic model

The reference to the model of A. P. Chernyavskaya allowed identifying operational units, the study of which makes it possible to understand the features of high school students. The author pointed out five main parameters of psychological readiness to make an adequate professional choice: autonomy, awareness, readiness to make a decision, the ability to panic, and emotional attitude to the situation of choosing a profession [9]. Let's take a closer look at the components of the main research model.

The content of the parameter "autonomy" is associated with the ability to isolate themselves from the world of people around them; to separate their goals from the goals of parents and other significant persons; to understand the integrity of their personality, the social community to which it belongs, the type of personality that would like to match, the lifestyle that would like to lead. Autonomy is manifested in the desire to realize the possibility of practical action, initiative and ingenuity in the implementation of opportunities; in the desire to acquire in-depth knowledge and skills in at least one area; in the overall orientation of success, taking responsibility for their own actions. The Autonomous man has his own experience of solving life's problems, planning his actions, of his time; able to correlate their actions with societal norms; able to anticipate professional growth, reveals the homogeneity of the professional preferences for a long time, is active in obtaining information relevant to the choice of a professional career; ready to compromise. An Autonomous person is distinguished by independence from significant persons (in thoughts, actions, deeds), self-determination of behavior, understanding of the ideal image of the "I" and the desire to achieve it.

The content of the parameter "awareness" is associated with the presence of knowledge about the world of professions in General, about the division of the world of professions on the subject and goals of labor, tools of production. In addition, awareness involves knowledge of certain occupations: conditions of work; the requirements of the profession to the man (especially the psycho-physiological sphere, the cognitive sphere and the

personality); requirements to level of education and specific field of education; prospects for professional growth.

The content of the "decision readiness" parameter is related to the ability to independently propose and evaluate an alternative. This person must be able to produce: a collection of possible solutions and their primary analysis; collection of information on each decision; a study of the chances of success of each alternative; the correlation of each alternative with its goals and values; developing a specific plan of action and to identify factors that facilitate or hinder the solution to the problem; action planning, considering new opportunities and challenges for development.

The content of the parameter "ability to plan" is associated with the development of a professional plan, which indicates: the main goal of development in the profession, the nearest and more distant specific intermediate goals, and ways and means to achieve intermediate goals, the expected external obstacles, their capabilities and limitations, spare options to achieve the main goal. The plan should be realistic, the prospect – optimistic.

The content of the parameter "emotional attitude to the situation of choosing a profession" is associated with the influence of emotional mood on the result of the choice. The emotional component of professional readiness is closely related to the emotional component of the maturity of the person as a whole, which manifests itself in a positive emotional mood, life optimism, emotional balance and tolerability of failures.

Thus, as the main model for the study of the psychological readiness of high school students to choose a profession of a technical profile, a model is used that includes autonomy, awareness, readiness to make a decision, the ability to plan, emotional attitude to the situation of choosing a profession as components.

### III. RESULTS

The study was conducted on the basis of secondary schools of Vologda and the Vologda region. It was attended by 283 high school students. The group of high school students who choose the profession of technical profile, according to the results of the survey included 112 people (subgroup TP). To identify differences in the psychological readiness of high school students who choose a technical profession, 87 students were selected from the rest of the respondents who preferred the Humanitarian professions (subgroup HP). The readiness indicators were compared between the two subgroups. The paper uses the technique of A. P. Chernyavskaya, which allows measuring the autonomy and awareness of high school students, readiness to make decisions, the ability to plan, and emotional attitude to the situation of choosing a profession. The objectives of the empirical part of the study were: 1) to identify the most common values on the scale of the technique, the interpretation of typical characteristics of the subgroup of psychological readiness of high school students; 2) specification of features of readiness of the senior pupils choosing professions of a technical profile in comparison with the senior pupils who gave preference to professions of the humanitarian sphere; 3) determination of the directions of work with the target group of senior pupils on formation of psychological readiness for the choice of a profession.

According to the data of primary descriptive statistics in both subgroups the most common values on the scales of the

method of A. P. Chernyavskaya were revealed. In the subgroup of high school students who choose a technical profession, the indicators of the severity of the sign on the scales of "autonomy", "decision-making", "planning" significantly exceed the equally probable average. The analysis of the content of the answers suggests that most high school students know what is important for them in life, have stable views on their professional future, are ready to overcome obstacles to obtaining a profession, their actions are subject to certain goals. The most typical values for the subgroup on the scales of "awareness" and "emotional attitude" are in the zone of average values. This, in turn, shows that high school students, who choose a technical profession, do not show much interest in the study of the world of professions in General, knowledge of its laws, reading directories of professions. At the same time, they have the necessary information about possible places of work, the duties that will have to be performed, and the prospects for development in the chosen profession. Among the high school students who preferred technical professions, a neutral attitude to the process of professional choice prevails.

In the subgroup of high school students choosing professions in the humanitarian sphere, the indicators of the severity of the sign on the scales of "awareness", "planning", "and emotional attitude" are higher than the equally probable average. Analysis of the answers suggests that the majority of high school students in this subgroup are interested in information about the laws, structure and content of the world of professions in General, about the possibilities of acquiring professions, employment, the required level of education for various professions. According to the results of interviews with representatives of professions, studying the directories of professions, they are familiar with the structure and content of activities in the chosen field of labor, professional growth opportunities. High school students of this subgroup have the skills of planning, emotionally involved in the selection process, optimistic about the future, set up for success in the profession. Typical values on the scales of "autonomy" and "decision-making" are in the middle zone. This shows that high school students of this subgroup do not seek to get out of the care of significant others, in the situation of decision-making based on their advice and recommendations.

The differences between the subgroups by popularity are clearly shown in fig. 1.

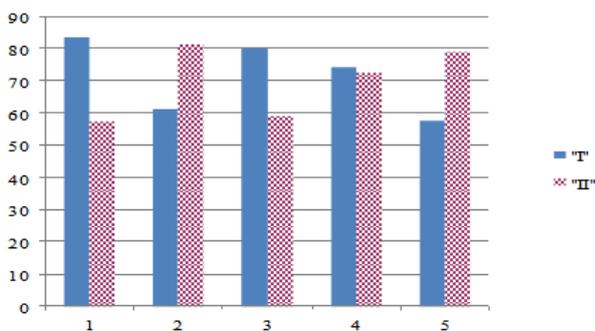


Fig. 1. Typical values on the scales of the Chernyavskaya method in each of the subgroups.

Symbols: "I" - subgroup TP; "II" - subgroup HP.

Arabic numerals indicate scales: 1 – "Autonomy", "Awareness", "decision-Making", "Planning", "Emotional attitude".

Comparison of the primary data of the two subgroups for each of the scales of the questionnaire was performed using the Mann-Whitney test. The comparison revealed statistically significant differences in the scales of "autonomy", "awareness", "decision-making", "emotional attitude" (at  $p < 0.01$ ). In contrast to high school students who choose humanitarian professions, technically oriented high school students are more Autonomous, prone to independent decision-making, but at the same time, less informed about the world of professions in General, less emotionally involved in the process of choosing a profession.

#### IV. DISCUSSION

In this paper we studied the psychological readiness of high school students, choosing a technical profession, to an adequate professional choice. The model of professional readiness of A. P. Chernyavskaya was used as the main one. We studied the autonomy of high school students, awareness, willingness to make decisions, the ability to plan, emotional attitude to the situation of choosing a profession. With the help of statistical procedures confirmed differences in the psychological readiness of high school students who choose the technical sphere of self-realization, and high school students who preferred the Humanities.

In General, high school students of technical orientation are more independent, independent in judgments and actions, in decision-making. They know what is important for them in life, have stable views on their professional future, are ready to overcome obstacles to obtaining a profession; their actions are subject to certain goals. They have the necessary information about possible places of work, the duties that will have to be performed, and the prospects for professional growth. High school students do not seek to acquire General information about the world of professions, its structure and content. Have, in General, a neutral attitude to the process of professional choice.

Development of programs of psychological and pedagogical support of high school students who choose a technical profession can be carried out in the direction of awareness and emotional involvement in the selection process. Knowledge of the structure of the world of professions, the features of the modern labor market will allow high school students to expand professionally oriented views and make a more objective and informed decision. Organized work with sources, content analysis will ensure the expansion of the information field. Developing an emotionally positive attitude to the decision-making process will serve to develop confidence in success. Discussion of the impact of emotional attitude to activity on satisfaction with it will assess the importance of emotional involvement in the process of choosing a profession. Clarification of ways to adjust emotional attitudes will help those of high school students who for a neutral attitude hide the fear of responsibility for the choice.

The results of the study can serve as a basis for the development of programs for the formation of psychological readiness for the choice of profession, differentiated by the professional preferences of high school students.

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