



Psychological Peculiarities of Occupational Choice by High School Students

Peculiaridades psicológicas sobre la elección ocupacional de los estudiantes de secundaria

Karakat Nagymzhanova^a, Mariyam K. Bapaeva^b, Zaini T. Koksheeva^c, Zaure Kystaubayeva^d, Dinara S. Shakhmetova^e

^a Department of Psychology and Humanitarian, Social Disciplines, Turan-Astana University, Astana, Republic of Kazakhstan

<https://orcid.org/0000-0002-1022-7626> karakat_4@mail.ru

^b Department of Theoretical and Practical Psychology, Kazakh State Women's Pedagogical University, Almaty, Republic of Kazakhstan

<https://orcid.org/0000-0002-8728-0599> m.bapaeva@mail.ru

^c Department of Psychology, Caspian State University of Technology and Engineering named after Sh. Esenov, Aktau, Republic of Kazakhstan

<https://orcid.org/0000-0002-9224-3012> Zaini-1964@mail.ru

^d Department of Design, Service and Tourism, Turan-Astana University, Astana, Republic of Kazakhstan

<https://orcid.org/0000-0001-5577-2161> zaure1001@mail.ru

^e Department of Professional Education, Saken Seifullin Kazakh Agrotechnical University, Astana, Republic of Kazakhstan

<https://orcid.org/0000-0002-8000-513X> mai010587@mail.ru

ARTICLE INFO

Key words:

High School Students
Occupational Choice
Occupational Guidance
Professional Interest
Psychological Aspects

ABSTRACT

The education of well-rounded, advanced youth, able to become a highly-qualified specialist in the future, a master of his craft, it is necessary that all work on the choice of profession, occupational guidance and the development of interest to the business began at school-age. The correct decision of a job in its capabilities is important as for the student and society. By this target, the goal of this scientific project is the study of psychological peculiarities of occupational choice by high school students. Authors describe the characteristics of research methods of professional interests of high school students in occupational choice, the results of experiments are stated. For the performance of tests, the pupils of 10, 11 classes of school No. 21 in Aktau and first-year students Caspian State University of Technology and Engineering named after Sh. Esenov were selected. The theoretical and practical significance of made researches is that it has identified the psychological aspects of occupational choices, theoretical foundations of vocational guidance of high school students. The research results can be used by school teachers and university professors, parents.

RESUMEN

Palabras clave:

Estudiantes de secundaria
Elección profesional
Orientación ocupacional
Interés profesional
Aspectos Psicológicos

La formación de jóvenes bien formados, capaces de convertirse en especialistas altamente cualificados en el futuro, referentes en sus profesiones, requiere de una orientación profesional, así como de un desarrollo del interés hacia ese sector ocupacional, desde la edad escolar. La correcta elección de una profesión según sus capacidades será importante tanto para el estudiante como para la sociedad. De acuerdo con esto, el objetivo de este proyecto científico es el estudio de las peculiaridades psicológicas en la elección profesional de los estudiantes de secundaria. Los autores describen las características de los métodos de investigación sobre los intereses profesionales de los estudiantes de secundaria relacionados con su orientación ocupacional y se exponen los resultados de los experimentos. Para la realización de la parte empírica se seleccionaron estudiantes de los grados 10 y 11 de las clases de la escuela n° 21 de Aktau y los estudiantes de primer año de la *Caspian State University of Technology and Engineering*, que lleva el nombre de Sh. Esenov. La importancia teórica y práctica de las investigaciones realizadas radica en la identificación de los aspectos psicológicos de las opciones profesionales y de los fundamentos teóricos de la orientación ocupacional de los estudiantes de secundaria. Los resultados de la investigación pueden utilizarse por profesores de escuela y profesores universitarios y familias.

1. Introduction

Conscious choice of profession by pupil is a complex and lengthy process associated with the formation of his outlook and other factors. Professional competence of pupils is evaluated with the help of medical, educational, social, political and psychological selection. The psychological selection aimed to determine the level of development and the condition of complex of psychological traits of personality, defined by a specific profession and specialty (Santisi, Magnano, Platania & Ramaci, 2018; Kimongo Kemboi, Kindiki & Misigo, 2016). Occupational choice means not only the entrance into high education establishment and learn on chosen specialty, but also related to human capabilities, requirements and characteristics of the profession that you have chosen, school performance, health condition, the corresponding singularity of thought processes and knowledge, character. The professional competency plays here huge role (Kunnen, 2014; Buley *et al.*, 2016; Bohndick, Kohlmeyer & Buhl, 2017). The right choice of profession by pupil according to their possibilities is important both for himself and for the society (Silagadze, 2017).

Research objectives of work are: to investigate the psychological peculiarities of occupational choice by high school students; to analyze psychological and pedagogical works on occupational choice of high school students, occupational guidance, professional interests of schoolers; to prove the relationship between the system of occupational guidance of high school students and their occupational choice.

2. Methods

Authors describe the characteristics of research methods of professional interests of high school students in occupational choice, the results of experiments are stated. For the performance of experiments the pupils of 10, 11 classes of school № 21 in Aktau and first-year students of university named after Sh. Esenova were selected. During the methods of research, were used the differential diagnostic questionnaire (DDQ) of E. A. Klimov, map of interests, supplemented by control methods, interviews, questionnaires, with the help of which the features of occupational choice of high school students were defined. The research data were processed and the results are reflected in the tables. Among high school students the researches were conducted to select the future profession, from processing of results and data reflection adopted in tabular form were defined the most chosen profession and the main value system at occupational choice. Therefore, the data of method “map of interest” was shown, method of value system of M. Rokeach was carried out and students according to selected specialties identified 10 main value systems. In our researches we pointed out the following responsibilities. Determine the type of specialty associated with occupational guidance of high school students, to ensure the reliability of its performance and that the quality professional definition allows the target formation of training to study in higher education institutions (HEI) in future.

3. Findings and Discussion

3.1. Theoretical problems of occupational guidance and occupational choice

Main feature peculiar to high school students is the formation of their life plans. Life plan is a plan for activities, so first of all related to the choice of profession. For boys and teenagers in the most cases the occupational choice is a moral problem.

When choosing a profession, we are guided primarily by self-improvement and human values. Up to date, the self-determination by profession is a many sided and multi-step process, which is considered from different points of view in psychology (Yovaysha, 1983). First, as a complex of requirements facing the developing individual, i.e. within a certain period, the person must solve it accordingly. Secondly, as the decision-making process by which forms the balance of their advantages and abilities and conduct their examination, on the other hand, finds a place in the system of social specialization of labor. Third, it is the forming of individual lifestyle. It is an integral part of professional activity. These techniques show the priorities of three different aspects of the work, (the first is the spawn of public issues, the third, the temperamental attributes of individual, and the second – the search of combined ways of agreement). At the same time, they are complementary (the first priority is social, the second – the social and psychological, and the third – the differential-psychological). Self-determination of development in psychological, professional relations consists of several stages. Of course,

they differ in time index. First period – children’s games, here is the child imagines in the role of the various professions and prepares himself for a certain purpose. Second period – adolescent fantasies, here he imagines in the role of owner of favorite profession. Third period – covers the most part of juvenile and adolescence period, pre-selection of the profession. The fourth period – the acceptance of practical solutions, occupational choice, consists of two main components.

The classification of specialty and necessary volume, preparation time for it and the final occupational choice (Shadrikov, 1982). Occupational choice provides the information to the high school student in two ways: about the world of profession, about himself, about his abilities and interests. But they are not available to high school students of the graduation class. According to E.A. Klimov: “In 17 years, the attitude to profession’s world is formed by practical consideration: through the knowledge gained from their parents, friends, peers, books, movies, TV shows” (Klimov, 1971). The meaning of particular profession, the public opinion can be in feedback with its occurrence in respect of workers, E.A. Klimov describe it as a double specular pyramid: the first side is recruitment needs of society, the second (reversed side) – attraction for young people. There are many applicants to attractive profession, but there are small needs in it. Therefore, many have to engage in other activities. Occupational guidance is not only social, but psychological question. The first method is generated by the experienced constancy and personal qualities. They are directly related to the process of: human selection and differentiation depends on the work, on the other hand – the choice of operation depends on the personal characteristics of the person (Viola, Musso, Ingoglia, Coco & Inguglia, 2017; Akhmetshin *et al.*, 2018). The second way is generated through the idea of directional formation of abilities; here it is assumed that a person can develop the necessary features for the given profession. These two methods can be named in different names, but they have one common methodological problem. There is a third possibility, generated by adopted in psychology principle of unity of consciousness and activity. According to E.A. Klimov they are based on the following statements:

1. The presence of constant psychological traits, which cannot be reeducated is assumed and directly depend on the productive work.
2. The methods are different, but (traits, activity) final result (labor productivity) depends on productive work.
3. When forming of necessary traits, the personal characteristics, internal characteristics of the individual shall be considered.

When choosing the professional consultation has great importance. This complex job requires thorough preparation. The highest school students are viewed the occupational choice spontaneously (Klimov, 1996). The serious factors of professional self-definition are age factors, the level of information of young man and the degree of interference. The point is not the duration, as in the sequence of a period.

Occupational guidance is an integral part of the social self-determination of individual. Only in case of social fairness and the needs of life, related to their own thoughts and “SELF”, the occupational choice can be productive. Interest in a particular profession may be the result of reading, TV watching, excursions or social intercourse. In our country occupational guidance is a complicated socio-psychological system. Occupational guidance is unified system consisting of closely related fields. Specifically, in the sector of professional education, they note diligence, inclination, desire of students, opportunities of their development, occupational guidance consultation and adaptation to the profession:

1. Professional education is a complex of socio-economic, psychological and pedagogical knowledge of students with particularities about different professions. In case of occupational guidance of students, the great importance has their interest in professional activities in various fields, and addiction.
2. The character research of students is conducted with the influence of psychological characteristics on individual. Goals of students, their vision, and desire have impact on student’s achievement.
3. In carrying out of professional consultation the special attention is given on peculiar features of the students, the requirements of their chosen profession. This is carried out in the following form: diagnostic consultation directed to the study of individual students, their interests, abilities, and occupational choice, corresponding to his ability or close to it. In the next period of occupational guidance, the choice of profession is made by conducting of various researches, questionnaire survey, self-assessment questionnaire, and questionnaire for parents, adaptation map, information obtained from form teacher about the interest of students in any profession. Next step of consultation on occupational choice is familiarization with collected material and its analysis. In this important period the depth and comprehensive analysis directly have impact on specificity and quality of our consultant. Consultant familiar

with general information about the student, comparing his ability with the selected profession, gives his opinion on the choice of the student. After that, according to the special composed methodology he makes the personal diagnostic interview.

4. Occupational choice. Conduct outside of the school in a special laboratory and in the specific conditions of labor of chosen profession.
5. Professional adaptation – active entrance of young man into production, new social environment and the specifics of the profession (Klimov, 1990; Serrano-Aroca & Solaz-Portolés, 2015; Vinichenko *et al.*, 2016; Costa & Rocha, 2017).

The main functions of management of occupational guidance are planning, organization, coordination, information service, independent function of professional management is a diagnostic teacher, proofreader (Kirillov, 2016). Control function determines the composition of the object and the subject of management and requires the implementation of activities in the relationship. Correction function includes regulation, correction actions of management to achieve the positive results in selecting of profession by high school students. The professional consciousness has an impact on occupational choice.

For effective management of occupational guidance of high school students necessary to select the certain indicators, which are: student awareness, knowledge of educational institutions where teach of chosen specialty, knowledge of their professional content, the presence of need for these specialists, according to economic data in the country, the choice of profession according to professional interest, the choice of profession having the public importance, needful for the country, the presence of abilities to the certain professions (to art, sport), the presence of labor practices (participation in clubs, groups, extracurricular activities) in chosen specialty, participation in professional games, the specific level of professional inclinations; health, occupational guidance on medical reasons (Rogach *et al.*, 2017; Nakhratova *et al.*, 2017).

N.I. Shadrin identifies five periods on choosing of profession by young people (Shadrin, 1999). The first period – occurs after finishing of 8th class by students. In this period the student has to choose: to continue their studies in a secondary school or go to study in a special secondary school (college). The second event occurs after the finishing of secondary school. The third period – to choose a profession (profession is broad term which includes the several specialties, such as a lawyer can be an advocate, a prosecutor and a notary public). The fourth period is to choose a specialty. Fifth is to select a specific place of job.

B. Kosov identifies three periods of occupational choice (Kosov, 1984):

1. Children's game shows the representatives of various professions.
2. This is a transition stage is fantasies generated by a childhood dream about nice profession. It covers the whole period of transition and part of youth. During this period, various types of activities are accumulated and evaluated according to their capabilities and value indicators.
3. The choice particular specialty is performed and level of future work According to research of sociologists, primarily the level of education is determined, and then particular specialty is chosen.

In the system of occupational guidance, the influence of social and psychological factors is very strong. The main social factors include the external objective factor: address, location of the school, work and profession of parents, peculiarities of work on occupational guidance at school (Kirillov, 2012). These external factors influence on subjective internal causes: natural characteristics (age, gender, temperament and ability), individual personality characteristics of students and value assessment (Gati & Asulin-Peretz, 2011; Onoyase & Onoyase, 2009). Psychological basics of occupational guidance are formed not only as an equal effect of internal background, but in the process of continuous communication of subject with outside world and is considered as complex and lengthy process, inseparable from the development of the individual.

Background consecution of personalized value system of occupational guidance can be divided into two groups (Sazonov, Simonenko, Avanesov, & Bukhalov, 1988). The first group includes the personality traits, which provide an acceptable solution to the problem of occupational choice, but do not participate in the revitalization of this process. These features are hardworking, professional and life experience, the total level of social life and human development. The second group includes the components of individual's dependence, generating selectivity in occupational guidance and activating the process of occupational choice, need, professional motive, professional interest, faith, guidance, values, special abilities. The main components of the second group are the need for professional determination, motivation and professional interest (Watt, Richardson, Klusmann, Kunter, Beyer, Trautwein, & Baumert, 2012). In connection with the choice of field in the professional work, where person could use his power, in the process of activities of individuals the contradictions between possibility and reality, the interests of society and the interests and abilities of the individual are happened (Ukke, 1972). In these conditions, the solution of these contradictions is a condition of professional training of future specialists.

According to the recent series of researches in psychology, the most frequent motive in occupational choice is the interest in the content of work, the second – the social significance of labor, the third – material interests, and the fourth – humanity, the prestige, the fifth – the ability of the individual (Kosov, 1984). In general, the motives of occupational choice related to the personal and age peculiarities of high school students, depend on the requirements of complex group. The study of history time of motivation when choosing a profession by high school students shows that the motive of interest to the profession, selected in the youth plays the leading role. In second place are reasons related to family background and social importance of the profession. The adult has interest to the profession depends on the individual personality of the individual. S.P. Kryagzhde defined the system of motives, influencing on occupational choice (Kryagzhde, 1981). In the school occupational guidance in the formation of professional orientation except the motivational sphere areas, the emotional-volitional, cognitive and personal, individual-conscious features are very important.

3.2. Digital data processing of researches

Develop the percentage rate of indexes of high school students involved in the testing of the *DDQ method*: 100% = 180. “Man – Man” – 44.6%, “Man – Nature” – 22.6%, “Man – technique” – 12.7%, “Man is sign system” – 10.6%, “Man is artistic image” – 9.5%. The final results of this method will be considered in detail in the part qualitative psychological analysis of research data.

Group indexes of method “Map of interests” (clearly distinguishable interests). In the next phase of the research through questionnaires among high school students the educational institutions are determined for training the specialists of chosen profession.

The research on method of M. Rokeach “Value Guides”. The names of the basic professional values were suggested to all high school students, corresponding to the chosen profession. Students have selected 10 main value systems as a result of monitoring for the professional values corresponding to his chosen profession.

In the next phase of our research in witness of experimental research forecast, we have been working on statistical analysis aimed at identifying the relation between selected professions by high school students on the basis of the selected system of professional values. In this work, we have identified a high frequency for the selected types of specialties among 11 classes, determined the rank level. In evidence of research forecast we applied method of coefficient of rank correlation of Ch. Spearman (Spearman, 1904) (table 1).

n	Professional value system	R ₁	Name of Profession	R ₂	d	d ²
1	Rich Life	40	Oil worker	40	0	0
2	Social prestige	34	Lawyer	32.5	1.5	2.25
3	Professional abilities	32	Philologist	32.5	-0.5	0.25
4	Social importance of profession	15	Teacher	13	2	4
5	Possibilities of career growth	12.5	Doctor	14	-1.5	2.25
6	Creative work	14.5	Engineer	11	3.5	12.25
7	High technology Equipment	8	Economist	8.5	-0.5	0.25
8	Labor evaluation	12	Programmer	15	-3	9
9	Health	10	Journalist	11.5	-1.5	2.25
10	Sociability	2	Social work	2	0	0
	Results	180		180	0	32.5

Table 1. Definition of relation degree between the indexes of method

We calculate the formula of coefficient of rank correlation of Ch. Spearman:

$$R_s = 1 - \frac{6\sum d^2}{n(n^2 - 1)}, \tag{1}$$

where n – number of pairwise cases;

R₁ and R₂ – the ranks;

d – difference between ranks;

d^2 – difference squared;

Σd^2 – the sum of d-squared values.

$$R_s = 1 - \frac{6 \times 32.5}{10(10 - 1)} = 1 - \frac{195}{990} = 1 - 0.20 = 0.80.$$

There is a close relation between the professional value orientation and occupational choice by high school students and it reaches the level of statistical significance. In our researches, we separately considered several characteristics of professional orientation, which are: to determine the level of occupational guidance of students, professional motives of definition, values orientation of high school student who has chosen the higher education and identifying characteristics of their future profession. Satisfying the requirements of students in specific activities in the future is carried out because of the external factors influencing on work of occupational guidance. As such factors can be considered the conversations with teachers and form teachers, psychologist, organization of meetings with highly qualified specialists from universities, scientists, communication with professional enterprises, etc (Solaz-Portolés, Del Campo, & Sanjosé, 2016). Such objective measures will give the chance to each pupil to determine the level of guidance individually, the motives of occupational choice of future profession, and necessary specialized knowledge for acquirement of this specialty, abilities, skills, deeply understand the ways to achieve them. The study of profession attractiveness is considered according to the selection's frequency by high school students on a certain profession. Among the test persons in school the profession of oil workers, lawyer, economist, journalist, translator, programmer and doctor are higher according to prestige status. Definition of occupational orientation of high school students can be explained by the peculiarities of economic, scientific, technological, information development of modern society. Objective data obtained through interviews with high school students and control DDQ, "Maps of interests" prove the results of M. Rokeach's method "Definition of orientation".

In the following step of researches the interviews were held with high school students, first year students and high school students of 10, 11 classes. According to interviews, we tried to determine the motives, aspirations, and other trends in the occupational choice (table 2).

Character of answers	Group of test persons		
	10 class	11 class	1 year
I would like to help people and make them happy	10	6	3
Do well in studies	8	7	20
If the school has more lessons of literature and history and less mathematics lessons	4	8	4
If I studied foreign language hardly in order to go abroad	13	23	22
I would purchase the car, beautiful clothes, audio system and etc.	17	18	17

Table 2. Results of interviews with high school students and first year students

The questions received from the three groups of test persons were carefully analyzed, the particular tendency of their interests and motives were identified. In all three groups, half of the test persons wanted to buy clothes, cars, etc. Students in 10 class and first year students have found the interest in learning a foreign language. Only the high school students have the desire to study well. The students did not answer the question about an interesting school subject for study. According to answers received from three groups the following conclusion can be made. First, all three groups of test persons relate their real life with a future. Choice of pupils is connected with interesting and uninteresting things, the future occupational choice associated with the interests of the future life. The main conclusion drawn from the experimental interviews; pupils and students clearly imagine their future life and connect it to real life.

4. Conclusion

Adolescence period is the period of the formation of character. At that period the influence of relatives and surrounding is strongest. Due to the fact that the occupational choice starts during adolescence period of personal development, in many cases, teens will learn about what kind of work is better, according to their peers or adults. We have seen that the occupational guidance work with high school students on occupational

choices allows them to consciously decide on a specialty, specifically to prepare for university entrance in the chosen specialty.

The theoretical basis of these issues is confirmation that in unified, interconnected system of educational process of school and university on occupational guidance may further develop the level of occupational guidance. For this purpose, established close relation between high school No. 21, University, where he conducted the research and methodological and occupational guidance activities, practical lessons of agitation – propaganda direction, open days – all of these events undoubtedly had a decisive impact on the professional orientation of young people. In conclusion, it can be said without prejudice that the productivity of the work on the formation of occupational guidance of high school students is dependent on two factors associated with the system of values and in account of individual psychological characteristics of pupil. First of all, his personal value system of professional orientation, at the second, social significance of chosen profession due to its high social prestige. As a result of mathematical-statistical processing and analysis of data it was proved the relation between system of occupational guidance of high school students and their occupational choice.

As a result, the forecast of research was confirmed, that is, the psychological characteristics of peculiarities of high school students on occupational choice were determined: the system of occupational guidance influences on occupational choice of high school students; close relation between occupational choice of high school students and difficulties of orientation was proved.

In our opinion, the above-mentioned close relation between the school and university provides an opportunity to overcome the contradiction between levels. At the same time, systematically forming the occupational guidance for periods can educate in the sense of responsible attitude to learn and to raise high school students' performance results.

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