# Modern Technologies in the Process of Determining the Professional Suitability of Freshmen Students of a Teacher Training College

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Abstract—One of the main problems in determining the professional suitability of freshmen in educational institutions is the shortage of significant social and professional experience among them. The actuality of the topic is caused by the problem of determination of professional suitability of students in teaching profession and planning their future career, as well as the functioning of the modern labour market and meeting the needs of the state in the labour force. The purpose of the article is to analyse the state of professional selfdetermination of college students, to identify the most suitable future specialists, to conduct a study of their motivational sphere and enterprising attitude to their activities. The leading method in the research is the method of the sociopsychological attitudes of the individual diagnosis in the need- motivational sphere created by O. F. Potyomkina, also the method of the individual diagnosis on the motivation for the success by T. Ehlers, allowing to reveal professional suitability to the teaching career of a of college freshmen. As a result of the study the practical significance which lies in determining the students' readiness for the responsible choice of a profession by means of modern technologies, and allows to be a demanded employee in the labour market and develop them professionally and personally was revealed.

**Keywords**—Career choice, vocational guidance, professional determination, professional suitability, teaching profession, motivation for success

## 1 Introduction

The relevance of the problem consists in a qualitative change of the attitude to the choice of profession in modern conditions. Currently, the idea of early vocational guidance and the specifics of the selection of candidates for a particular profession is discussed in detail in the works by M.V. Nikitaeva, G. A Cherednichenko, S. N. Chistyakova. [10, 2, 3]

Profile classes in secondary schools, specialized schools and gymnasiums with indepth study of some subjects are created to prepare students interested in modern professional trends in the world of professions and for the purpose of early professional self-determination. Thus, early vocational guidance is carried out, which serves for preparing school leavers for the entrance to profile colleges and universities.

According to I.L. Dendeber and S.V. Dendeber [5] the parents should be actively involved in the vocational guidance activity. Parents can and should take part in career guidance as developers of a creative idea, project, or as consultants in their preparation.

In Moscow, St. Petersburg, Dobryanka (Perm Region territory), Izhevsk, Samara and Kemerovo Oblasts, in the Republic of Sakha (Yakutia), an important trend in the organization of vocationally significant cooperation guidance, including mentoring is «the formation of sustainable partnership links with the parents in educational establishments... where holidays, festivals, subject weeks and decades, days of science and art, exhibitions of creativity and other activities having vocational guidance meaning are held annually» In different parts of our country, in different educational institutions a new experience appeared, where one or other educational events directly connected with the acquisition of social experience by students take place.

A.E. Volkov, I.M. Remorenko consider social practice as "an element of pedagogical systems aimed at the formation of civic competence and civic activity" [15].

A. Naumov indicates the importance of having active position, building by a person relations with other people, groups and society in general [9].

It should be noted that the motivation for successful professional activity plays an important role in achieving certain results in the process of acquiring a profession.

The most important component in the teaching, as noted by I.A. Zimnyaya [20]

is motivation which can be both internal and external characteristic in relation to the activity, but always remains the "internal characteristic of the individual as a subject of this activity."

The key characteristics are the personal characteristics of students involved in the learning process, the desire for success and self-reliance, initiative and responsible attitude to the activity [17-19]. A young person's attitude towards future work responsibilities, colleagues and the occupation itself largely depends on the successful professional self-determination of the profession [21].

Education and training create the conditions for getting active social experience and for a critical analysis of social life. Getting and accumulating social experience play a key role in the development of each person. This is especially important for high school students and college students.

Market economic relations have led to a decrease of the role of education, and, consequently, to reducing the number of competent professionals.

# 2 Methodology

The purpose of this study is to analyse professional self-determination of college students. Using diagnostic methods, identify the most suitable future specialists, conduct a study of their motivational sphere and initiative attitude to activities (identify their social and psychological attitudes of the need - motivational sphere, a responsible attitude to the activity, the motivation for success).

The next stage is to analyse and compare the indicators of suitability for this profession and indicators of the desire to achieve success in the chosen activity. This analysis will allow us to conclude whether the high motivation, the initiative and responsible attitude to activities is one of the most important indicators of the professional suitability.

Object of study:

· Future primary school teachers

Subject of study:

 Professional suitability of specialists and its main criteria: the level of motivation to achieve success in professional activity, volitional qualities - independence, responsibility.

High motivation is associated with the disclosure of human abilities, interests, vocation, which determines the future professional development of an individual and his activity.

At present, the labour market does not allow young people to function effectively in social terms, to use the acquired experience and knowledge with benefit for their economic and other interests. Therefore, there is a contradiction: between the need of a modern society for a socially active independent person, who consciously chooses a future occupation and the lack of a responsible attitude to the choice of profession by high school students. This contradiction is associated with insufficient theoretical and practical elaboration of the vocational guidance problem.

Research hypothesis: Professional suitability and effectiveness of the future work of students specializing in teaching is caused by the combination of the following pedagogical conditions: the motivation to achieve success is one of the main factors in the process of learning; the most suitable specialists will be those who show initiative, responsibility.

Objectives of the study:

- Analyze the value of the motivational aspect as one of the factors of a successful professional activity;
- Identify the conditions for effective functioning in professional activities.

Research methods:

The research methods are:

- Theoretical and methodological analysis of scientific, psychological, pedagogical, methodical literature on the research topic; analysis, comparison and synthesis of career guidance;
- Analysis and systematization of the results of college students professional selfdetermination; pedagogical experiment; questioning; modeling; expert assessment method, conversations.

Experimental base of research: The study involved more than 65 first- and thirdyear students of the pedagogical department of the Teachers' training College in Naberezhnye Chelny studying speciality "Primary school teaching".

Stages of research:

The ascertaining stage of a pedagogical experiment with first-year students (48 students) reveals the level of professional self-determination of the students at the "entrance" using the questioning and conversation method.

At the second stage the following methods were used:

- 1. The method of the socio-psychological attitudes of the individual diagnosis in the need- motivational sphere created by O. F. Potyomkina
- 2. The method of the individual diagnosis on the motivation to the success by T. Ehlers. The method consists of 41 questions each must be answered "yes" or "no."

The purpose of the methods: to identify motivation for success.

On the "exit" the results of the survey revealed only 12 students from all third-year students, who took part in the further study of professional suitability, all - girls aged from 18 to 20 years, one student aged 22 years. All of them receive the profession of "Primary school teaching" at the Teachers' training College in Naberezhnye Chelny. One student already has a specialty "Musician".

#### 3 Results

You may mention here granted financial support or acknowledge the help you got from others during your research work.

From real work with the first-year students studying "Primary school teaching" at the Teachers' training College in Naberezhnye Chelny we found out directly using the methods of conversation, questioning, how students chose their future specialty, whether they knew about this profession, when they were school students, or who or what circumstances influenced their choice, who they consulted when choosing a specialty. We received various answers, but most of the students responded that they had discussed with their parents, but the decision was made by themselves.

#### 3.1 Ascertaining stage

At the ascertaining stage, after analysing the students' answers, we found out that more than half of the students (67%) deliberately made their choice. 86% of the students, when choosing a profession, share the opinions with parents and relatives. A small number of students (2-3%) made a spontaneous choice: - a friend chose this college, and I was with him; - my aunt said that the work is easy, and you can manage it with your love to children. The rest (28%) attracted their desires and interests, for example, the opportunity to learn various subjects such as playing musical instrument, foreign languages, drawing. We learned motives, desires and reluctances, presence of interests of free choice, goals in getting a profession, general positive attitude to studying, although there is also a small percentage (1-2%) of high school students who do

not relate the choice of profession to their real potentials: - I chose it because I had to choose something, because I was not taken to the 10th grade, - the tuition fee is acceptable.

Students most capable of being a were determined by expert assessment method. As a part of the first-year student's day, the freshmen studying teaching career were offered a thematic quiz "I am a teacher". The quiz is aimed at identifying students' existing knowledge in different fields of knowledge, as well as a common outlook. The quiz consists of three sets of questions, the answers to which are evaluated by experts in the fields of knowledge. The first block "The world around us" contains questions related to information on geography, history, political system, famous personalities and cultural heritage of different countries, and fun questions to which students can give witty answers, different from the answers of the originators of the quiz. This block consists of 60 questions, which makes it possible to determine the area of knowledge in which the student is the best.

The second block "Erudite of Etiquette" is represented by questions on communication culture and etiquette forms of language use. According to the students' answers, one can determine the formation and motivation for conscious communication, acceptance of social and cultural patterns of behaviour based on knowledge of the norms of etiquette.

The third block, "DIY", is aimed at identifying some skills obtained on the basis of nine years of school education. It involves drawing or painting, making toys, dolls from paper, fabrics, natural materials like straw, fir cones etc. The student must show how make something interesting for children, be able to sing children's songs, be able to dance and play games.

#### 3.2 Formative stage

The level of professional suitability for the profession of a Primary school teaching was studied by two criteria:

- 1. The level of motivation to master the profession
- 2. Volitional qualities independence, responsibility

To assess the level of motivation to master the profession, we used the R. Cattell questionnaire.

To evaluate volitional qualities, independence, responsibility and to develop students' professional convictions educational discussions were successfully used. Role-playing and games will provide students with openness in the proposed situations and create conditions for increasing the social maturity, will help to develop a sense of tact to a communication partner, will work out the ability to bring him to the desired outcome of the negotiations or to resolve conflict situations politely and kindly.

The results of the survey of testees with the help of the R. Cattell questionnaire are displayed in table 1.

Designation Maximum Average 10. 12. 1. 2. 3. 4. 5. 7. 11. factors value value A.B. A.D. G.P E.D. Z.H. I.P. L.D. M.I. S.D. H.Sh. P.A. Sh.A A 7 10 8 7 12 9 11 11 10 10 6 В 8 4 4 4 3 5 3 4 3 3 3 12 6 10 9 9 8 10 10 6 8 Е 12 6 5 5 5 8 6 6 5 9 8 8 5 7 F 12 6 2 6 6 6 7 5 6 5 7 7 5 7 7 G 12 6 10 8 9 7 9 8 12 7 8 9 4 Η 12 6 10 10 6 10 11 6 Q 6 12 5 6 8 9 5 Ι 6 8 9 6 7 6 6 6 2 9 L 12 6 6 6 6 3 7 8 12 9 3 4 6 11 3 8 M 6 6 7 7 8 12 6 6 5 6 3 4 4 N 6 6 8 7 О 8 7 4 5 3 4 7 10 12 6 6 6 6 5 9 7 9 Q1 12 6 12 11 5 6 10 6 4 4 5 2 3 5 7 7 12 6 8 9 10 6 2 Q2 6 12 9 9 5 8 3 2 7 7 3 10 Q3 6 8 8 5 12 6 6 10 7 Q4

**Table 1.** The level of motivation by R. Cattell questionnaire

Table 2 identifies the qualities that favourably affect the profession of a teacher, and those that are not desirable using the following notation: (-2) – not desirable quality for this profession (strongly expressed); (-1) – not desirable quality (weak); (+1) – quality is favourable (weak); (+2) – quality is favourable (strongly expressed).

Analysing table 2, you can see which of the applicants' score is higher, who is more suitable for the teacher's profession:

1.A.B. = 29 points, 2. A.D. = 22 points, 4. E.D. = 18 points, 3. G.P. = 15 points, 7. L.D. = 13 points.

The results of the survey: the overall suitability score is presented in table 2.

2. Designation 3. 4. 5. 8. 10. 11. 12. 1. 6. 7. 9. factors A.B. A.D. G.P. E.D. Z.H. L.D. M.I. S.D. H.SSh. P.A Sh.A +1+1+1+1+2 +1-1 В +2 +2 +1+2 +1+2 +1 +1+2 -1 +2 +2 +2 +2 +2 +2 +1Е +1+1-1 -1 +1+1+1+1-1 -1 -1 F +1+1-1 +1+1+1+1+1+1-1 +1 +1G +2 -1 -1 +1+2 -1 +2 -2 +1+2 -1 Η +2 +2 +1+2 +2 +1+1+1 +2 +1+2 +2 +1 +2 -1 +1+2 +1L +2 +2 +2 +2 +1+2 +2+2+1-2 +2 +2M +2 +2 +2 +1+1+2 +2 +2 +1 +1 N +2 +1+1+2 +1-1 -2 +1-2 +2 -2 -2 O +2 +2 +2 +2 +2 -2 -2 -2 -2 +2 +2 -2 Q1 +2 +2 +1 +1 +2 +2 -1 +2 -1 -1 -1 -1 Q2 +2 +2 +2 -1 -2 +1 -2 +1 +1 -2 +1

Table 2. The overall suitability score

Q3	+2	+2	-2	+2	-2	-2	+1	+2	-2	+2	+2	+2
Q4	+2	+2	+2	+2	+2	-2	-2	+2	+2	-1	-2	+2
Overall score	29	22	15	18	12	9	13	8	9	5	4	7

Table 3. Diagnosis of personality on the motivation for the success by T. Ehlers

Testees	Success motiva-	Will power				tudes of per- vation sphere	Socio-psychological attitudes of personality in the need - motivation sphere				
	tion mark	mark		Orio	entation to	):	Orientation to:				
			process	result	altruism	individualism	labour	freedom	power	money	
1. A.B.	21	30	7	9	8	6	8	8	4	3	
2. A.D.	21	23	6	7	9	2	6	7	3	1	
3. G.P	20	17	6	9	4	7	7	6	2	4	
4. E.D.	20	13	7	6	1	5	5	6	5	5	
5. Z.H.	20	24	7	7	4	9	8	6	6	6	
6. I.P.	19	16	5	6	7	5	6	8	5	4	
7. L.D.	18	19	7	8	6	4	6	7	5	8	
8. M.I.	17	16	5	7	9	1	5	6	3	2	
9. S.D.	16	23	4	7	7	2	4	5	3	4	
10. H.Sh.	16	19	6	8	5	2	5	8	4	2	
11.P.A.	10	16	4	4	7	2	3	6	1	1	
12. Sh.A.	10	14	7	7	5	4	5	9	3	3	

The method of "test for willpower". This technique contains 20 questions, the testee must choose the most appropriate answers from several alternative ones.

The purpose of the method: to identify the rate of the indicator of willpower.

According to the results of the survey, it is possible to judge how strong a person's character and willpower is, and how his behaviour is responsible, and his actions are realistic and balanced.

The third stage of the study is final, it involves the analysis of the previous two. In order to summarize the results of our study, turn to table 4.

 Table 4. Summarized results of success motivation, willpower, socio-psychological attitudes

Testees		Motivati on to success	Will power indica-		rsonali motiv	logical a ty in the ation sph ntation to	ere	Socio-psychological attitudes of personality in the need - motivation sphere Orientation to:			
	suitabil- ity indicator		tor	Process	Result	Altruis m	Individuali sm	La- bour	Freedom	Power	Money
1. A.B.	29 - (1*)	21	30	7	9	8	6	8	8	4	3
2. A.D.	22 - (2*)	21	23	6	7	9	2	6	7	3	1
3. G.P	15 - (4*)	20	17	6	9	4	7	7	6	2	4
4. E.D.	18 - (3*)	20	13	7	6	1	5	5	6	5	5
5. Z.H.	12 - (6*)	20	24	7	7	4	9	8	6	6	6
6. I.P.	9 - (7)	19	16	5	6	7	5	6	8	5	4
7. L.D.	13 - (5*)	18	19	7	8	6	4	6	7	5	8
8. M.I.	8 - (9)	17	16	5	7	9	1	5	6	3	2
9. S.D.	9 - (8)	16	23	4	7	7	2	4	5	3	4

10. H.Sh.	5 - (11)	16	19	6	8	5	2	5	8	4	2
11.P.A.	4 - (12)	10	16	4	4	7	2	3	6	1	1
12. Sh.A.	7 - (10)	10	14	7	7	5	4	5	9	3	3

<sup>\*</sup>The most suitable students for the field of teaching are marked

We see the results in table 4 and on the basis of the previous reasoning that the data obtained by using the R. Cattell's questionnaire.

According to the results of the survey we create the histogram showing the most suitable specialists in the field of teaching comparing professional suitability, motivation to success indicator, will power indicator (Fig. 1):

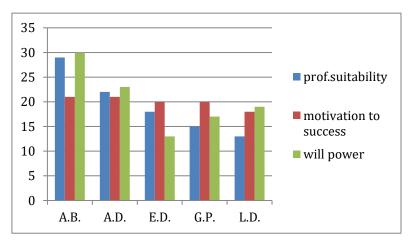


Fig. 1. The header image of online-journals.org

1st place - 1.A.B. = 29 points, 2nd place - 2. A.D. = 22 points, 3d place - 4. E.D. = 18 points, 4th place - 3. G.P. = 15 points, 5th place - 7. L.D. = 13 points.

# 4 Discussion

The study of psychological and pedagogical literature allows us to state the presence of special studies on professional suitability and vocational guidance, because people succeed due to different combinations of personal qualities, but the diagnosis of social and psychological attitudes to the successful professional work in the sphere of teaching has not been studied.

It is also necessary to recognize the gap of the domestic theoretical thought in comprehending the existing experience of solving this problem abroad. The American theory of vocational guidance, founded by F. Parsons, in 1906 pointed to the need to assist young people in choosing a profession. According to F. Parsons [12], it is better to choose a profession consciously, than to hope for a successful event. Young people

should familiarize themselves with a large number of professions, and not to get down to some "convenient" or accidentally appeared work.

A. Davidson [5] considered the organizational forms of training and the procedural aspect of training vocation in the USA. H. Atzoni and F.G. Shervish[1] spoke about the constituent elements of the concept of vocational education. However, the authors of books and articles about the nature and content of vocational training sometimes hold dissimilar and contradictory opinions.

The work on the selected problem required taking into account the research results that were obtained in the course of research on vocational guidance of high school students.

There are works by S.M. Klimov, A.V. Kotenkov [7, 8] in the field of structural changes in vocational guidance programs. However, there is a gap in theoretical works on the issue of professional suitability as a leading direction in the organization of social protection and support of college and university students.

A.E. Volkov, I.M. Remorenko [15] consider career guidance as a link in the model of education for the knowledge-based economy.

Many researchers such as E.V. Piskunova, I.E.Kondrakova, M.P. Soloveykina [13]; B.V. Zhelezov, [16]; U.V. Ukke [14] agree that a person needs an individual approach to a profession choice. Thus, even with reference to a single occupation, it is impossible to talk about a certain unified and indisputable list of professionally valuable qualities.

#### 5 Conclusion

As a result of the analysis of professional self-determination of college students at the initial stage, we identified the professionally important qualities for a Primary school teaching favourable weak or strongly expressed qualities, and not desirable qualities for this profession. Organizational skills, the ability to plan and lead the work are of particular importance for a teacher. According to the results of the study, we recommend three groups of professional qualities that correlate with the success of the activity, namely,

- · General knowledge
- Professional skills (responsibility, honesty, initiative, independence, decisiveness, flexibility in communication)
- Individual psychological and personal qualities (motivation, intellectual development, emotional and neuro-psychological stability).

At the second stage of the study, the socio-psychological attitudes of the individual to the choice of the profession of a teacher were disclosed. The degree of motivation for success in professional activity was revealed. Socio - psychological attitudes were examined. Levels of motivation for success identified and volitional qualities were studied. Thus, we have identified the most suitable specialists for activities related to teaching profession.

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