

## Conference Paper

# Gender Approach in Professional Orientation of School Students

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## Abstract

The Constitution of Russia states that women have the same right to education and professional employment and have the right to equal pay for equal work. However, similarly to most countries, gender asymmetry is observed in Russian labor market. In recent years, a growing number of studies have focused on the topic of gender socialization and its connection to professional self-determination. Our article is devoted to the gender-related aspects of school students' career choice. We rely on the most recognized methodology in Russia developed by A.G. Shmelev's group: computer-assisted test battery "Proforientator".

Our research has shown statistically significant differences in future career preferences of male and female students aged between 14 and 18 in all spheres, with the exception of "Communication". Young men of early adolescence showed great interest in such professional spheres as "Technology", "Science", "Business", "Sign", and "Risk" while high school girls showed a strong inclination to "Art" and "Nature". Thus, this distribution of preferences can be considered as a gender-dependent.

Our study has also identified masculine characteristics in females and feminine characteristics in males in the formation of their professional interests. We believe that it is important to take into account the process of gender socialization when working to support the professional self-determination of young people. The revealed regularities require further research.

**Keywords:** gender, gender socialization, professional self-determination, interests, professional spheres, professional orientation.

## 1. Introduction

Modern society, as a priority, promotes freedom from any kind of inequality and oppression in the emergence of man. One of the important grounds constituting the hierarchy of social relations is gender [1]. The problem of gender is multifaceted and more often the studies of assessing gender relations are interdisciplinary. In recent

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years, gender relations have been studied in the framework of individual sciences: psychology [2;3;4], sociology [5]; pedagogy [6;7;8], the philosophy [9;1;10], history [11]. Psychological studies of recent years have shown that traditional stereotyped images of men and women have changed in the direction of reducing the differentiation of characteristics. Now these images are not as lost as before. In the image of an ideal woman, the significance of the masculine characteristics is higher than feminine characteristics in the image of an ideal man [2].

There are several reasons for this scientific interest. Recently, male and female roles have undergone great changes. The development of technology, the participation of women in work activities on a par with men and equal access to education changed the traditional understanding of "sexual division of labor." It turned out that men and women can do the same job. Traditional gender division of labor has become less rigid and unchanged, cultural stereotypes of masculinity and femininity, family relations have changed. However, despite the fact that women's rights to equal rights with men were enshrined in legislation access to education, free choice of employment, equal pay, etc. In practice, gender asymmetry only increased due to the increase in female unemployment, the wage gap, the hidden discrimination on the basis of gender. Therefore, the gender issue is currently one of the most pressing problems in the political, social and economic spheres of society.

Modern research has made it possible to put forward and justify the hypothesis of a regular spark of the gendered measure of women and men engaged in labor activity. Moreover, the higher the social status of the individual in a specific genus and type of activity, the more powerful the decreasing of component of its female line. [1]. Russia, according to the international organization Inter-Parliamentary Union, takes only 84th place in the number of women in politics. Representation of women in politics and management remains a key unresolved issue [12]. A stable tendency of concentration of Russian women in the humanities professions and men in the technical was revealed [11]. More often than not, the male part of the students is more active in the development of new forms of employment in Russia [13].

In recent years, there has been an increase in interest in research conducted by foreign and domestic teachers and psychologists on the study of gender socialization in interrelation with professional self-determination [3;5].

Gender socialization is one of the important factors of personal development. Its success is determined by the formation of the gender identity of the individual, the mastery of its gender norms behavior and self-determination in the system of gender stereotypes. In the process of gender socialization the social experience of interaction,

sexual behavior adopted in the society, gender stereotypes, carried out in communication and activities [3].

The gender approach becomes one of the components in the implementation of a person-centered approach in education, in the professional self-determination of the individual.

It should be noted that the influence of modern education on gender socialization is assessed ambiguously. According to most researchers, modern pedagogy is gender neutral. At the same time, it is noted that gender socialization in the education system occurs on the basis of curriculum. On the one hand, equality of sex is declared on the other hand, there is assistance in the formation of certain gender stereotypes among schoolchildren, the ready-to-use translation of gender schemes division of labor in the professional sphere [14]. A variety of estimates indicates the presence of gender characteristics in the mass consciousness, rather attributed to this or that sex, than really existing. Therefore, one of the main tasks of gender research is to find out how public stereotypes correspond to reality, i.e. how much they are wrong or true. In conditions of social transformations and increasing freedom, the society's demand for creative independence, initiative and responsibility of the individual is increased. According to sociologists, the self-determination life of young people in contemporary Russian society changes in its nature in the direction of spontaneity, variability, different urgency, riskiness. The value foundations of youth are transformed from stably traditional to innovative [5].

The issues of life and professional self-determination are especially relevant for the period of early adolescence. The stage of early adolescence (13-17 years) involves awareness of such categories as what I am, the world, life. At this period of life the person solves the questions: Who is to be? What to do? Whom to be with? Hence, one of the most important tasks for a high school student is professional self-determination. The importance of professional self-determination is due to the fact that it is inextricably linked with self-realization of a person in other important spheres of life, as a modern understanding of career implies not only the success in this professional activity but also the success of the whole life.

In the literature, including the foreign one, extensive experience of the psychological and pedagogical support of professional self-determination of senior pupils has been accumulated [15;16;17]. At the same time, during the professional self-determination of senior schoolchildren does not take into account the process of gender socialization. Gender socialization is the most important component of the social development process and promotes self-determination in the personal and professional sphere.

Psychological research of gender differences which are important for professional self-determination revealed that men characterized by a wider scope of activity, flexibility of thinking, desire for work, high speed of operations in the implementation of objective activities but women – easy entry into social contacts, increased sensitivity to failure in communication, anxiety, empathy, caring [18]. The analysis of the literature makes it possible to note that the importance of professional self-determination in the process of socialization of modern schoolchildren is recognized by society. At the same time, technologies to ensure this process, taking into account gender specific features, have been insufficiently developed both in methodological and in technological plan. The problem of studying the influence of gender on professional self-determination of senior schoolchildren in modern Russia seems topical. The main criterion, determining the choice of the future profession, for the majority of high school students is the interest in a particular specialty (81%); in the second place is the match with abilities (45%); on the third - “the profession guarantees me future employment” (31%) [19].

## 2. Methodology

The aim of the study was to identify gender characteristics of interests in connection with the professional self-determination of high school students.

The study of interests in the choice of the future profession was conducted among high school students in the city of Ekaterinburg, Sverdlovsk region and the Ural Federal District. Total number of samples was 859 people, including 385 boys and 474 girls between the ages of 14 and 18. Half of the entire samples were high school students at the age of 16. The sample included the students from 11 schools of Ekaterinburg city, from which 10 schools have an elevated status, the students of the Lyceum from Muravlenko town (Yamalo-Nenets Autonomous District), the students of the preparatory courses of Ural Federal University, the participants of the regional stage of the Olympiad in Social Studies.

The results of computer testing on the indisputably better Russian methodology developed under the leadership of A. G. Shmelev were used for the study. This testing complex “Proforientator” allows you to get a differentiated view of the level of interest in professional activity [20]. This technique has shown not only the recognition of a large number of users throughout the Russian Federation but also high predictive validity.

In accordance with the methodology, the sphere of interests is diagnosed according to 8 groups conventionally designated as: "Technology", "Science", "Art", "Communication", "Business", "Sign", "Nature" and "Risk" presented as independent diagnostic scales. The choice of eight scales was based on theoretical approaches of domestic labor psychology [15] and American psychology of professional choice [21].

For statistical analysis of data, descriptive statistics methods were used. Comparison mean values was carried out by nonparametric statistics using the Mann-Whitney test. The choice of the nonparametric criterion was due to the lack of a normal distribution in the estimation by the Kolmogorov-Smirnov test.

### 3. Results

Analyzing the results, statistically significant differences were found between the mean values of indicators in the diagnosis of preferences among boys and girls in the sphere of interests on such scales as: "Technique", "Science", "Business", sign, risk (higher in boys), "Art", nature (higher in girls) (Table 1).

The higher interest of boys in technology, "Business" and risk is obvious and it is determined by the preferable choice of relevant professions, traditionally considered male. Differences between sexes are more noticeable by modal values, especially in the scales "Engineering" and "Business". However, it doesn't mean the completely lack of interest in such occupations among girls because among them there are those who also show increased interest to these areas of activity but they are much less than the boys. Index median, which A. Anastasi [22] considers the main for comparison in such cases is the same for boys and girls according to scales "Technology", the sign and "Business" and the scale of risk is not significant. The increased interest of boys in the field of "Science" in comparison with girls, determined by the average value, mode and even the median, most likely due to the proximity of the group of interests "Science" and "Engineering". The increased interest of young men in the group of professions "Sign" is determined by the average value (when the mode and the median are equal). It is probably explained by the mass enthusiasm of young men by programming. Professions from the field of "Art" are traditionally more attractive for girls, especially older adolescents. Although, this orientation of interests is also represented among boys but it is represented in a lesser degree. That is why, with a significant difference in the mean values in different sexual groups on this scale, the medians are virtually indistinguishable, whereas the modes enhance the idea of sexual

differences. A similar situation is revealed on the scale "Nature" but the noted regularities are expressed weaker, while the mode indicator indicates the heterogeneity of the group. On the scale "Communication" is not revealed statistically significant differences. Communication problems are very significant for the age of the early youth. Although, the indicators of mode show the significant difference in sex groups. It should be emphasized that the identified differences are determined by the average value of the indicators scales.

While, there are cases differ from the central tendency in each sexual group, both among girls and boys. According to A. Anastasi [22], it should be taken into account the median of the frequency distribution while comparing sex groups from all statistical indicators. However, we tend to base the comparison on mean values and values of mode reflecting the central tendency of the group. The revealed reliable differences based on mean values in the interests of the scales "Technique" and "Art" can be associated with gender characteristics and sex-role characteristics of men and women in society.

TABLE 1: Level of interest in the spheres of professional activity in groups of girls and boys (10 points scale of walls).

Scale of "interest"	boys			girls		
	median	mean	mode	median	mean	mode
Engineering	5,9	6,8*	9,2	5,9	4,4*	4,5
Science	6,5	6,4*	6,7	6,0	5,5*	5,1
Art	6,0	4,5*	2,5	6,2	6,7*	7,8
Communication	5,3	5,0	1,0	5,3	5,2	6,8
Business	5,8	6,2*	8,5	5,8	4,3*	3,4
Sign	5,9	5,7*	6,0	5,9	5,4*	6,0
Nature	6,8	4,8*	3,3	6,6	5,3*	multi
Risk	5,9	5,9*	7,4	5,8	5,4*	6,3

\* the reliability of the differences by the Mann-Whitney criterion  $p < 0,5$

A more detailed comparison of the interests of boys and girls to the preferred groups of occupations was conducted by comparing of contrast groups. For this purpose, the groups with increased interest (according to the methodology - a score of 7.5 points and higher on a 10-point scale) and lowered interest (a score of 3.5 points and below on a 10-poin scale) were singled out. The most pronounced difference in contrast groups is noted among boys on the scale "Technique": the number of boys with a pronounced interest in technology was 43.4% (167 people) of the total boys and with a reduced interest in technology was only 5.2% (20 people) (Table 2). Similar indicators for girls were weakly expressed: only 1.9% (9 people) with increased interest and 7.2% (34

people) with a decreased interest. As we see, there are those among girls who have an increased interest in technology, although less often. However, a sign of low interest in technique is not a confirmation of a mass lack of interest in this area of activity among girls because only 34 people out of 474 showed this trend and 431 (90, 9% of the total girls) showed the interest in this area within the limits common to both sexes. Thus, the differences between the sexes in interest of technology are primarily related to a larger number of groups with high corresponding to the scale of boys than girls. While the number of groups with a low interest in technology among the boys and girls were almost the same.

Among the girls, the greatest difference in the number of contrast groups is expressed on the scale "Art" with a clear predominance of the group interested in choosing the appropriate professions 40.3% (191 people) of the total. Among the boys, the group similar in terms of interest was only 8.1% (31 people). Groups with decreased interest in the art sector made up 6.8% (32 people), young men 39% (150 people) which confirms the general tendency noted above for sexual differences in the interests of the future profession. The differences between groups of different sex in terms of interests in the field of "Art" are due to the greater number of groups with an increased interest among girls and low interest among boys. The comparison of contrasting interest groups among boys and girls specified the features of the identified of the general sex differences noted above. So, the differences between boys and girls on the scale "Science" are associated with a larger group of boys who have high rates on this scale (Table 2). By scale "Business" the differences were determined mainly by a larger group of girls with a low indicator, although, the number of the group with an increased interest in this sphere among girls was also more than among boys. The differences in the scale of the "Sign" are due to the fact that the contrast group with a low index among boys is significantly smaller than among girls while groups with a high index are practically equal. Similarly, on the "Nature" scale, the overall differences between boys and girls were largely determined by a large group of boys with low rates, although a group with a high rate among boys was more than girls (Table 2). Differences between girls and boys on the "Risk" scale were associated with both a larger group with high rates among boys and with a larger group with low rates among girls. Comparison of contrast groups confirmed the statistical indicators presented above and clarified gender differences in the interests. Boys are characterized by an increased interest in technology, science, risk and reduced interest in art. The girls are characterized by an increased interest in art and a decreased

interest in business. We can assume that these characteristics may be related to gender. However, this requires further study.

TABLE 2: The number of young men and women with a high (more than 7.5 points) and low level of interest (less than 3.5 points) on a 10-point scale of walls.

Scale of "interest"	boys				girls			
	High rate		Low rate		High rate		Low rate	
	quantity	%	quantity	%	quantity	%	quantity	%
Engineering	167	43,4	20	5,2	9	1,9	34	7,2
Science	115	29,9	19	4,9	22	4,6	13	2,7
Art	31	8,1	150	39,0	191	40,3	32	6,8
Communication	98	25,5	106	27,5	72	15,2	98	20,7
Business	5	1,3	2	0,5	35	7,4	177	37,3
Sign	67	17,4	53	13,8	85	17,9	82	17,3
Nature	82	21,3	118	30,6	68	14,3	97	20,5
Risk	105	27,3	67	17,4	101	21,3	116	24,5

#### 4. Conclusions

The conducted researches have revealed statistically authentic differences of interests among boys and girls of 14-18 years in all spheres of activity, except for the sphere of "Communication". The boys identified a preferential interest in the professional fields of "Engineering", "Science", "Business", "Sign" "Risk", the girls - "Art" and "Nature". In general, the interest of boys in technical professions and interest of girls to creative professions can be considered distinctive features.

At the same time, there was certain specificity in the interests of differences between young men and women. There is a small number of groups among girls that show "male" interests for the future professions and there is also a small number of groups among boys who have shown "female" professional interests.

Maintenance of professional self-determination in view of the process of gender socialization is undoubtedly important and requires a scientific approach, a specially organized work, educational campaigns that increase the gender culture of the teacher. It is necessary to include gender issues in training programs of vocational specialists who are only beginning to be implemented in some universities of the country.



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