

Features of Economic Representations of Russian High School Students

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Abstract. The problem of the study of psychological readiness for business activities of high school students has become relevant in connection with the role that the small and medium-sized business sector has in almost all developed countries. Readiness for innovation and entrepreneurial activity largely determines the efficiency of its implementation in any profession. The article is devoted to the study of the economic ideas of high school students as a structural element of psychological readiness for future entrepreneurial activity. The study was conducted in the socio-cultural conditions of the Chuvash Republic (Russian Federation). The article highlights the results of an empirical study of economic representations of high school students aged 16-19 years studying in educational institutions (schools, gymnasiums, lyceums, colleges) (N = 650) about the current socio-economic situation and ways to achieve prosperity and well-being in this situation, about wealth and poverty. This study gives the necessary information in connection with the study of this phenomenon, which has become an integral part of the life of modern society and the future professional activities of schoolchildren.

1. Introduction

Representatives of many sciences - economics, sociology, psychology, history, and others are engaged in various aspects of studying the problem of entrepreneurship.

The history of studying entrepreneurship abroad has a long tradition (J. Schumpeter, P. Drucker, R. Hirsch, M. Peters, A. Hosking) In Russia this type of the research appeared in the 90s. of the 20th century.

At the same time, Russia occupies the 67th place (out of 69 possible) in the world in terms of the number of businessmen, since only 7% of the country's population is involved in entrepreneurship. It is stated in the National report "Global monitoring of entrepreneurship. Russia 2012" that only 2,1 % of the population is ready to do business in Russia today. This figure is the lowest in the last six years. In the BRICS countries (Brazil, India, China, South Africa) and Eastern Europe, this indicator is at a level of 21-24 percent ("Global monitoring of entrepreneurship. National report Russia. 2012).

For the revival of entrepreneurship in Russia, the emergence of the entrepreneurial stratum, the development of entrepreneurial activity of the population, it is extremely important to attract young people to entrepreneurship. But the lack of modern scientific data on the psychological aspects of young people's readiness for entrepreneurial activities makes it difficult to effectively implement and provide scientific and methodological support for entrepreneurship support programs, which determines the relevance of research in this scientific field.

Important area of applied psychological research at the present time is the formation of psychological readiness for entrepreneurial and innovative economic activity among schoolchildren and student youth (Amiryan D.S., 2003; Tokov R.H., 2005; Abrekova L.O., 2006; Kitova D.A., 2007; Dyshekov B.N., 2008; Z. Khanova, 2012; Khashchenko T. G., 2012).

As noted by T.G. Khashchenko (Khashchenko T., 2012), the grounds for highlighting this topic as an urgent scientific problem at the present stage of economic development are due to the contradictions between the need of various sectors of the economy for professionals with entrepreneurial potential and the lack of such potential among a large part of university graduates, between the need to introduce into the system the education of psychological technologies that ensure the formation of the psychological readiness of the individual for entrepreneurial activities and inadequate knowledge of this phenomenon.

Among Russian authors, interest in the problems of economic socialization of different age categories of the population appeared in the late 90s of the 20th century, due to the dramatic changes taking place in the Russian economy and social environment of the time, appearing of economic norms, the emergence of "market values" [Vyatkin A. P., 2004]

The next scientific interest in the problem of the economic socialization of a developing individual by Russian specialists (teachers, economists, sociologists, psychologists) is connected, from the point of view of scientists of Russia (T. V. Drobysheva, L. L. Zhuravlev and others), with the international economic crisis and revealed the difficulties that emerged in the process of the previous period of its development as a scientific direction. These difficulties were the scarcity and separation of the author's studies of the phenomenon of economic socialization, incompleteness of the category system, which led to terminological differences in the author's definition, the problem of measuring economic socialization in terms of its results and so forth. (Zhuravlev A.L., Drobysheva T., 2011).

Psychological studies of the economic socialization of an individual focus on the problems of economic consciousness (T.V. Drobysheva, A. L. Zhuravlev, A. I. Kitov, V. P. Poznyakov, V. V. Spasennikov, A. B. Fenko), economic values (N. A. Zhuravleva, A. B. Kupreychenko), economic self-determination (A. B. Kupreychenko), economic behavior (A. Fernam, I. Andreeva, O. S. Deineka, N. M. Lebedeva, A.N. Tatarko).

D.A. Kitova, B.N. Dyshekov (Kitova D. A., Dyshkov B. N., 2011) suggest that it is not possible to teach successful economic activity, including entrepreneurial activity, and we should speak only about the formation of psychological readiness for it.

In the structure of such a business readiness T.G. Khashchenko (Khashchenko T. G., 2012) identifies the following subsystems: orientational, operational, and basic subsystems. The latter determines the development and operation of the entire system as a whole. The basic subsystem is formed by interconnections of components that make up the psychological foundation for the conscious choice of entrepreneurship as a way of self-sufficient, independent and responsible disposition of one's own life, one's own work and its results, providing the possibility of self-realization of an individual. Orientation subsystem (entrepreneurial orientation) is formed by interconnections of components that integrate personality characteristics that determine the conscious acceptance / rejection of entrepreneurial activity by the person and himself in it.

Z.G. Khanova (Khanova Z.G., 2012) suggests considering psychological readiness for entrepreneurial activity as an integrated complex, which is characterized by a socio-economic orientation, value-oriented orientations, subject-activity semantic structures, a degree of awareness of attitudes towards entrepreneurial activity, a high level of formation ideas about it. Socio-psychological predictors of successful entrepreneurial activity in modern conditions, according to this author, is the predominance of the motivation to succeed, independence, responsibility, adequate self-esteem, the ability to analyze the situation and extract relevant entrepreneurial information, the ability to measure risk, the ability to overcome failure, heuristic thinking style, ability to foresee.

D. S. Amiryan (Amiryan D. S., 2003) discloses the study of socio-psychological readiness for entrepreneurial activity from future entrepreneurs, its potential and overcoming personal limitations and notifies that timely identification of socio-psychological readiness for entrepreneurial activity and

conducting targeted formative conditions can be achieve a significant increase in the effectiveness of university training for future entrepreneurs.

Thus, in the majority of studies, the essential role of the cognitive component of readiness for entrepreneurial activity is the formation of a system of consistent ideas about entrepreneurship as a phenomenon as a whole, the degree of awareness of attitudes toward entrepreneurial activity, and a high level of formation of economic ideas have been revealed.

Economic ideas are one of the elements of economic consciousness, a complexly organized socially determined system of ideas about economic objects, which subjectively reflects objective economic realities. Most often, researchers pay attention to ideas about such economic concepts as money, wealth and poverty, price, wages, investments, economic well-being, etc.

As Mironova T.Yu. notes, people's ideas about wealth and poverty, about their own financial situation, not only affect their everyday economic behavior, but also affect the entire system of macroeconomic relations. (Mironova T.Yu., 2011).

Drobysheva T.V. (2013) explores the economic perceptions of younger schoolchildren about a poor / rich real person and the character of Russian folk tales; she analyzes the patterns of their relationship with the value orientations of the individual and describes the function of filtering value orientations in the process of constructing economic ideas (Drobysheva T.V., 2013).

The article by the author N.V. Azarenok presents the results of a study describing the specificity of economic ideas of young people in Belarus with different socio-demographic status of the main economic phenomena ("Money", "Wealth", "Poverty" and "Economic Well-being"). These economic views are considered as an indicator of the individual's assimilation of socio-economic experience and the result of economic socialization (N.V. Azarenok, 2017).

In the work of A. L. Zhuravlev, T. Drobysheva, V., the results of an empirical study of social ideas about a poor and rich real person, represented at different levels of economic consciousness: social and individual, are considered. The revealed differences, on the one hand, testify to their decisive reason, on the other - to the specifics of the cognitive component of the economic socialization of an emerging personality (Zhuravlev A.L., Drobysheva T.V., 2009; Zhuravlev A.L., Drobysheva T.V., 2011).

Most of the works devoted to the study of economic ideas have been performed about student youth. Little studied, in our opinion, is the specifics of economic representations of high school students or junior college courses. The study of economic ideas in the framework of the psychological readiness of young people for entrepreneurial and innovative economic activities is also of practical importance, since it is closely related to the economic and financial literacy of high school students.

High school students need economic knowledge, because they are active participants in market relations as consumers, citizens, future specialists of various levels and profiles. Over time, they will take leading positions in the economy and politics, social and spiritual spheres of society.

The purpose of this study is to study the economic views of young people as a structural element of psychological readiness for future entrepreneurial activity

2. Materials and methods of research

Research methods: analysis of scientific sources, questioning, testing, methods of mathematical-statistical data processing.

For the survey, a number of questions were used to evaluate the particular economic perceptions of respondents from the standardized Program of Socio-Psychological Study of the Economic Consciousness of the Person (IP RAS, A.L. Zhuravlev, N.A. Zhuravleva) (Zhuravlev A.L., Zhuravleva N.A., 2002); author's questionnaire on the study of economic ideas, aimed at identifying the nature of social motivation to actions that promote or hinder economic and innovative transformations; orientation of social attitudes, the totality and development of which will determine the type of economic consciousness and economic behavior of a person in the current economic situation (Zakharova A.N., Petrova M.V., Dulina G.S., Semenov V.L., Talanova T.V., Chaynikov V.N., 2018; Zakharova A.N., Dulina G.S., Talanova T.V., 2020).

The study was conducted on the basis of educational organizations of Cheboksary in the socio-cultural conditions of the Chuvash Republic (Russian Federation). In total, the study involved 650 high school students. Among them were 474 girls, 176 were boys. The age of the high school students is 16-19 years.

3. Results

In the National report “Global monitoring of entrepreneurship. Russia 2016-2017” (National report “Global Monitoring of Entrepreneurship. Russia 2016”), prepared under the Global Entrepreneurship Monitor, GEM project)) scientists pay much attention to the importance of analyzing public attitudes towards entrepreneurship and entrepreneurial aspirations, when studying entrepreneurship.

Attitudes towards entrepreneurship reflect the general mood of the population towards entrepreneurs and entrepreneurship in general. The presence in the country of people who are not only able to realize new business opportunities, but also have sufficient knowledge and experience to implement them, significantly affect the development of the country. Attitudes towards entrepreneurship in society have an impact on entrepreneurship, and vice versa. For example, recognition of entrepreneurship in society, expressed in a positive attitude of the population towards it, depends on the fact that people know someone who started their business. This reflects both the level of entrepreneurial activity and the development of the business community. An analysis of the answers to the question “Is there a person in your close family environment who runs his own business?” Showed that our sample was almost equally divided according to this criterion. Among the family of respondents, 51.6% have such people and, accordingly, 48.4% do not.

An important characteristic of the potential for entrepreneurship in a country is the number of people planning to open their own business. The more residents with entrepreneurial intentions are in the country at present, the higher will be the level of entrepreneurial activity in the country in the future, that is, the desire to have one’s own business in future. Indirectly, we can judge the attitude towards entrepreneurship and future entrepreneurial aspirations by the answers of young people to the question “What do you think encourages people to do business?” (You could choose several answers).” Predominantly often, the desire for economic freedom and independence was perceived as the motivation for entrepreneurial activity. It is perceived as an opportunity to become a master of one’s business, an opportunity not to depend on the authorities - 51.67%. In second place among economic ideas is economic necessity, the desire to get away from want, i.e. understanding of the so-called “forced” entrepreneurs (21.85%). Among the most clearly distinguished attributed motives for choosing entrepreneurial activity was also called “the desire to realize their abilities” (18.31%). Attention should be paid to the unexpectedly low number of elections (low “weight” of the motive), such motives as “the desire to secure a high level of material well-being” (6.77%) and the “social status” motive (1.38), that is, for young people currently studying in educational institutions, the social importance and prestige of entrepreneurial activities in society do not play a noticeable role when future businessmen choose this field of activity and they do not assume that it will give them profit in future.

Meanwhile, in the late 1990s and early 2000s, the studies of Russian entrepreneurship of the content of the most clearly identified and recognized motives for choosing entrepreneurial activity put the motive to achieve a high level of material well-being among the leading ones (Poznyakov V.P., 2007; Zakharova A.N. , 2001).

To determine the subjective perception of the socio-economic situation in the country, respondents were asked the question: “What feelings do you have in the current socio-economic situation?” (Table 1).

Table 1. What feelings do you have in the current socio-economic situation?

Answer Options	%
encourages action, desire to work more, to live better	43,6
gives rise to willingness to wait for change for the better	35,7
creates a feeling of apathy, hopelessness	18,8
causes a feeling of protest, resistance	16,1

As shown by the results of the study (Table 1), 43,6% of the schoolchildren expressed the opinion that the current socio-economic situation in the country determines the desire to work more, encourages action. More than one third express a willingness to suffer in anticipation of change for the better (35,7%); 16,1% of respondents have a feeling of protest and resistance. They are optimistic about the future, few of whom consider an economic situation in the country that causes apathy, hopelessness - 18,8%. It is rather complicated to study entrepreneurship as additional classes in the gymnasiums and lyceums as the students already have additional preparatory courses for various specialized subjects. Such research work can be carried out at interschool scientific-practical conferences in the section "Entrepreneurship". We should not forget about the houses of creativity of young people where there are special project programs. Each project should be made out not only with the calculation of pay-back, but also with the ways of profitability.

Next, we have analyzed the direction of social attitudes, on the basis of which the type of real economic behavior is formed. The personification of wealth in the public consciousness reveals the answers of the respondents to the following question: "What personifies wealth in your view?" (Table 2). It was possible to choose several answers.

For the majority (of more than 50% of the respondents) of schoolchildren, wealth is associated with the opportunity to help their relatives (54,9%), to have a high paying job (46,1%), to have the opportunity to give children a prestigious education (38,7), to have a good apartment, car (32,6%), the ability to travel (30,5%).

Table 2. The representation of wealth for schoolchildren.

Answer options	%
The opportunity to give children a prestigious education.	38,7
The ability to travel	30,5
The ability to help their relatives	54,9
Having a high paying job	46,1
Ability to live where you want.	23,4
Possibility to make donations for public needs.	17,5
Having your own business.	29,9
Having property	15,6
The opportunity not to think about tomorrow.	22,9
Having savings.	15,5
Having a good apartment, car.	32,6
Having an account in a foreign bank	4,7
Having securities	4,9

*It was possible to choose several answers, so the amount is not equal to 100%.

Surprisingly, not so important for achieving wealth was having one's own business (29,9%), having property (15,6) as shown by the results of the survey. According to the respondents, the presence of accounts in a foreign bank (8.69%), securities (4.35%) represent the wealth the least. Not surprising are the results on the issue of "representation of wealth." High school students believe that the material component of well-being is expressed in the ability to help their loved ones, get high-paying jobs, give children a prestigious education and the ability to travel. This data reflects their family values and upbringing.

Answers to the question: "The achievement of prosperity and wealth in the current socio-economic situation, in your opinion, depends on:" are given in Table 3. It was possible to indicate several answers, therefore the number of choices is indicated in the table.

Table 3. Ways to achieve prosperity and wealth in the current socio-economic situation.

Answer options	%
Having connections, acquaintances	49,3
Personal qualities of a person	46,6
Hard work	13,8
High professionalism	34,9
Desire	49,3
Specialties, professions	51,4
Availability of primary capital	17
Ability to speculate, cheat	15,6
Economic and political situation in the country	27,5

Respondents of our study cited the presence of specialties and professions (51,4%), desire (49,3%), having connections, acquaintances (49,3%) and personal qualities of a person (46,6%) as the most important for achieving prosperity and wealth in the current socio-economic situation. It is important, in their opinion, to have high professionalism (34,9%). Less than half of our respondents think that economic and political situation in the country, the availability of primary capital and ability to speculate, cheat are important. Only 13,8% of the respondents consider that hard work has a certain value in order to achieve prosperity and wealth in the current socio-economic situation. What is surprising is the fact that least of all high school students consider hard work as the key to achieving wealth and well-being in today's economic situation. Most likely, this is due to the great psychological pressure in the school and in the family, when they have to choose the specialized subjects that will be necessary for entering universities, and take a lot of private lessons outside of school. They understand that they will have to work a lot, but they don't see a direct connection with hard work and a guaranteed high result that will indirectly affect their future well-being.

According to American scientists, this is due to lower socio-economic status. People need to be confident that career advancement depends on the abilities and quality of work performed (Ross L., Nisbett R., 1999). Despite the fact that the respondents of our research are still at the initial stage of professional self-determination, this is a very significant fact for achieving well-being, in our opinion is a negative phenomenon.

Scientists share the concept of objective and subjective poverty. To determine poverty in an objective sense, it is possible to use statistical data (family income, data on the availability of food, medical care, education). Poverty in the subjective sense is defined in terms of people's perception and experience of their situation. The subjective sense of poverty contributes to the formation of a specific self-concept of the personality (perception of oneself, one's social status, etc.), special social expectations and attitudes of people (K. Muzdybaev, 2001).

The respondents' answers to the following question: "What do you think poverty represents?" (Table 4) show the idea of poverty in the public consciousness. It was possible to choose several answers. For the majority (about 50% of the respondents) of schoolchildren, poverty is associated with the lack

of sufficient livelihoods (56,4 %), live in debt constantly (46,6%), and lack of normal living conditions (42,2%).

Table 4. The representation of poverty for schoolchildren.

Answer Options	%
lack of sufficient livelihoods	56,4
live in debt constantly	46,6
lack of normal living conditions	42,2
the inability to live as you want	29,4
the presence of only the necessary minimum of products to support life	22,9
complete uncertainty in the future	21,9
lack of a stable source of income	26,3
live at the subsistence level	24,9
low paid work	32,3
lack of savings	13,7
inability to use paid services (education of children, treatment, rest, leisure)	19,7

*It was possible to choose several answers, so the amount is not equal to 100%.

Lack of savings and the inability to use paid services (education of children, treatment, rest, leisure) characterize the poverty the least according to respondents. The concept of poverty among high school students is personified by the lack of sufficient means of subsistence; constantly live in debt; lack of normal living conditions. This shows a high level of analysis and understanding of the results of inefficient work and the wrong attitude to the material components of wealth.

4. Conclusion

Currently, the most promising area of scientific research is the study of psychological readiness for entrepreneurial activity among young people (schoolchildren, university students, colleges), which will eliminate the existing contradiction between the growing number of state and republican programs to support small and medium-sized businesses in the region, youth entrepreneurship and the lack of scientific data on the psychological support of these programs.

As the results of the study showed, so far only half of the students have formed an active strategy for overcoming economic and life difficulties. About the third part of the participants have chosen the passive strategies - a strategy of detached acceptance of the situation, passive acceptance by a person of life circumstances; waiting for a change for the better. High school students believe that the material component of well-being is expressed in the fact that they can help their loved ones, get well-paid jobs, give children a decent education and the ability to travel. This data reflects their family values and upbringing.

Respondents of our study cited the presence of specialties and professions, the desire, the presence of connections, acquaintances and personal qualities of a person as the most important for achieving prosperity and wealth in the current socio-economic situation. It is important, in their opinion, to have high professionalism. Less than half of our respondents believe that the economic and political situation in the country, the availability of primary capital and the ability to speculate, fraud are important. Only 13.8% of respondents believe that hard work has a certain value to achieve prosperity and well-being in the current socio-economic situation. What is surprising is the fact that least of all high school students consider hard work as the key to achieving wealth and well-being in today's economic situation. All this is connected with a great psychological pressure in school and in the family, when they come and choose the profile subjects that will be necessary for entering universities, and take a lot of private lessons outside of school. They understand that they will make a big difference to their future well-being.

The concept of poverty among high school students is personified by the lack of sufficient means of subsistence; constantly live in debt; lack of normal living conditions. This shows a high level of analysis and understanding of the results of inefficient work and the wrong attitude to the material components of wealth.

The results of the study of the economic ideas of young people studying in educational institutions, obtained in the study covered in this article, may in the future become the basis for the development of psychological recommendations for improving the educational system in the direction of increasing entrepreneurial activity among young people; development of recommendations for psychological support of youth entrepreneurship support programs and the creation of a holistic psychological and economic mechanism for supporting youth entrepreneurship in the region.

References

- [1] Abrekova L O 2006 on the situation of relations (Karachaevsk)
- [2] Amiryana D S 2003 Abstract of diss. kand-ta psychol. n. Yaroslavl State University (Yaroslavl)
- [3] Dyshekov B N 2008 Forms of psychological business. Abstract of diss. ... kand-ta psychol. n. (Karachaevsk)
- [4] Azarenok N V 2017 Features of the economic socialization of modern youth *Actual problems of the humanities and socio-economic sciences* **11**
- [5] Drobysheva T V 2013 Economic socialization of personality: value approach *M. : Publishing House "Institute of Psychology RAS"*
- [6] Drobysheva T V 2011 The current state and problems of the study of economic socialization in the domestic science *Psychology in economics and management* **1**
- [7] Global monitoring of entrepreneurship Russia 2016/2017 National Report *Publishing House of St. Petersburg State University Global Entrepreneurship Monitor: Russia 2016/2017: report*
- [8] Khanova Z G 2012 Formation of psychological disability Abstract of diss. ... Dr. psychol. n. Institute of Educational Technologies (Sochi)
- [9] Khashchenko T G 2012 Personality readiness of students to entrepreneurship Abstract of diss. ... Dr. psychol. n. Tambov State University G R Derzhavin (Tambov)
- [10] Kitova D A 2007 Formation of psychological readiness for entrepreneurial activity Trends in the Psychological Science of the Jubilee Conference 58–72 *Publishing house "Institute of Psychology RAS"*
- [11] Kitova D A, Dyshekov B N 2011 Formation of the individual to legitimate entrepreneurial activity *Psychol. Econ. Manag.* **1**
- [12] Mironova T Yu 2011 Economic perceptions of adolescents and young men about social inequality, which are formed in the process of economic socialization in Russia News of Saratov University *11 Ser. Philosophy. Psychology. Pedagogy* vol 4 72-75
- [13] Muzdybaev K 2001 The experience of poverty as a social failure: the attribution of responsibility, coping strategies and indicators of deprivation *Sociological Journal* **1**
- [14] National report "Global monitoring of entrepreneurship Russia 2011 ed. A Yu Chepurenko (SPb)
- [15] Poznyakov V P 2007 Entrepreneurship as a value and values of Russian entrepreneurs Russia in a globalizing world: worldview and sociocultural aspects ed Vs Stepin Section of Philosophy, Sociology, Psychology and Law of the Department of Social Sciences of the Russian Academy of Sciences *M: Nauka* 513-528
- [16] Ross L, Nisbett R 1999 Man and situation: Perspectives of social psychology *M: Aspect Press*
- [17] Shamionov R M, Mironova T Yu 2014 The structure and dynamics of ideas of adolescents and youths about economic phenomena *Contemporary Studies of Social Problems* **9(41)** 227-242
- [18] Tokov R Kh 2005 Diagnosis of the student's psychological readiness for entrepreneurial activity. Abstract of diss. ... kand-ta psychol. n. (Stavropol)
- [19] Vyatkin A P 2004 Psychological methods of studying the economic socialization of the individual in the learning process *Irkutsk: BSUEP Publishing House* 228

- [20] Zakharova A N 2001 Psychology of economic behavior of entrepreneurs *Cheboksary: Publishing house Chuvash.un-ta*
- [21] Zakharova A N, Dulina G S, Talanova T V 2020 Psychological Readiness to Entrepreneurship of Economics Students Solovev D (eds) *FarEastCon 2018 Smart Innovation, Systems and Technologies* vol 138 Springer Cham 475-480 DOI https://doi.org/10.1007/978-3-030-15577-3_46
- [22] Zakharova A N, Petrova M V, Dulina G S, Semenov V L, Talanova T V, Chaynikov V N 2018 In the world of freedom, a student, a youth International Conference on Economy in the Modern World (ICEMW 2018) *Advances in Economics, Business and Management Research* vol 61 252–258 DOI <https://doi.org/10.2991/icemw-18.2018.46>
- [23] Zhuravlev A L, Drobysheva T V 2011 Economic socialization of an emerging personality: a theoretical model and an experimental study (using the value orientations of an individual as an example) *Psychological Journal* vol 32 **2** 59-81
- [24] Zhuravlev A L, Drobysheva V V 2009 Methodology of studying the phenomena of economic consciousness of an emerging personality (by the example of ideas about a poor / rich person) *Psychology in Economics and Management* (**2**) 23-35
- [25] Zhuravlev A L, Drobysheva V V 2011 The concepts of a poor and rich person as a phenomenon of the economic consciousness of an emerging personality *Psychological Journal* 32 **5**
- [26] Zhuravlev A L, Zhuravleva N A 2002 Program of the program Modern psychology: Status and prospects of research Part 5 Programs and methods otv. Ed A L Zhuravlev 11–42 *Publishing house of the IP RAS (Moscow)*