

THE HUMAN CAPITAL OF UNSUCCESSFUL COLLEGE STUDENTS FROM THE STANDPOINT OF OBJECTIVE AND SUBJECTIVE ASSESSMENTS

Nina Shabrova

Abstract

An important role in the formation of the human capital of Russia and its regions is played by college students. Unfortunately, the results of research show a rapid increase in the number of unsuccessful college students. This problem becomes a prerequisite for slowing down the social and economic development of the country.

The purpose of the article is to analyze the human capital of unsuccessful college students.

The empirical basis of the article is the results of a mass survey of college students (Sverdlovsk region, Russia, 2021, n = 1345).

The article shows that almost 50% of college students have objective signs of academic failure. Their human capital is characterized by several features. Knowledge is not valuable to them. They learn without much desire. Learning is difficult for them. This group of students does not participate in competitions, research activities. They rarely engage in self-education. These students are not satisfied with their attitude to study and academic achievements, the volume and quality of professional knowledge, skills, and the professional choice made.

The article argues that the identified features of the human capital of unsuccessful college students can be used as the basis for differentiated professional assistance to overcome educational failure.

Key words: human capital, unsuccessful college students, academic failure.

JEL Code: I21, J24

Introduction

The quality of the human capital of Russian youth largely depends on the quality of their professional education. An important role in the formation of the human capital of Russia and

its regions is played by college students receiving secondary vocational education. According to the Federal State Statistics Service, the number of college students has increased annually by an average of almost 90 thousand people since 2016 (Russian Statistical Yearbook, 2020). At the same time, researchers note that college graduates have worse employment outcomes, lower wages and levels of economic activity, and greater risks of unemployment than university graduates (Graduates of secondary vocational education..., 2020; Konstantinovskiy & Popova, 2020). According to scientists, one of the reasons for this situation is a rapid increase in the number of educational unsuccessful college students (Zborovskiy & Ambarova, 2020). This means that the problem of educational unsuccessful of this group of students becomes a prerequisite for slowing down the social and economic development of the country.

In recent years, predictors of students' educational success/failure have been actively discussed in the scientific literature. But scientists focus on the study university students, but not college students (Schneider & Preckel, 2017; Hsu & Yeh, 2019; Castillo-Sánchez, Gamboa-Araya & Hidalgo-Mora, 2020, Gilar-Corbi, Pozo-Rico, Castejón, Sánchez, Sandoval-Palis, & Vidal, 2020).

The starting point for solving the problem of educational failure of college students should be the study of the reasons for its occurrence. The identified obstacles will allow us to develop ways to overcome learning failures and improve the quality of students' human capital.

The purpose of the article is to analyze the human capital of unsuccessful college students. The research tasks are to study the characteristics of the human capital of college students: 1) who have academic failure; 2) who subjectively assess themselves as unsuccessful in learning.

1 Methodology and method

The scientific literature has accumulated a wide range of approaches and methods for measuring human capital. Meanwhile, there is a problem of adapting these approaches and methods to the problems of the sociology of education. This problem manifests itself both at the theoretical and empirical level (Roshchin & Rudakov, 2015; Kuzminov, Sorokin & Froumin, 2019; Popov, 2020). For example, the traditional method of studying human capital through the number of years of study cannot be used in the case of young students.

Schoolchildren and students are carriers of specific human capital. They are in the process of education and cannot fully monetize the acquired knowledge, and skills.

To solve this problem, the researchers developed a theoretical model of the human capital structure of educational communities (Zborovsky & Ambarova, 2021). This model includes a set of cognitive and non-cognitive resources that allow students to achieve a certain level of educational success. These resources include knowledge, and skills (cognitive resources), educational motivation and the desire for achievement, the ability and readiness for professional self-determination, value orientations for academic work, and education as a sphere of self-realization (behavioral resources). In addition, the structure of the human capital of educational communities includes another group of elements – predictive resources. These include health, cultural, moral, and social capital. These elements are important predictors of educational success. In this article, we will focus on comparing the cognitive and behavioral resources of successful and unsuccessful college students.

Based on expert interviews with representatives of educational organizations of the Sverdlovsk region, focus groups with schoolchildren and students of colleges and universities, secondary analysis of data from pedagogical, socio-psychological, and sociological studies of educational failure, a questionnaire was developed. The general logic of the empirical study of the elements of the human capital of educational communities was as follows. We measured the value (need) of an element of human capital for students, their activities to fulfill this need, and their satisfaction with the results of this activity.

The empirical basis of the article is the results of an online survey of Sverdlovsk region students – schoolchildren, college students and university students (January – February 2021, n = 3002). To implement the tasks set, a sub-array of college students (n = 1345) was allocated from the general database.

We studied the human capital of successful and unsuccessful college students from two perspectives. The first position is the division of students into successful and unsuccessful ones based on the grades they receive during training (conditionally objective assessment). Students with satisfactory (3 points on the scale, where 5 is the highest score, and 2 is the lowest) and unsatisfactory (non – certification) grades were classified as unsuccessful. The second position was based on the college students' subjective assessment of themselves as successful and unsuccessful when answering the question: "Do you consider yourself successful in learning?" (subjective assessment).

The obtained quantitative data were processed in the SPSS Statistics program. For statistical analysis of the information, frequency, correlation, and cross-tabulation methods were used. The frequency method made it possible to describe the demographic characteristics of college students. The correlation method made it possible to identify similarities and differences in the cognitive and behavioral resources of objectively (and subjectively) successful and unsuccessful college students. The method of crosstabulation (conjugation) allowed us to interpret the nature of the relationship between the variables. The relationships that had an asymptotic significance (2-sided) < 0.05 and a value of the Kramer coefficient > 0.200 were taken as significant.

2. Results

Before proceeding to the analysis of the human capital of college students, it is necessary to describe their socio-demographic characteristics. 58% of men and 42% of women participated in the study. These are mostly urban residents: a quarter of respondents live in a large city, 18% in a megalopolis, and another 15% in a small city. The majority of students (69%) considered themselves to be middle class: 38% to the lower middle class (there is enough money for food and clothing, but buying a refrigerator, TV, furniture is a problem for us), and 31% to the higher middle class (we can easily buy a refrigerator, TV, furniture, but there is no money for more). 38% of the respondents are trained in training programs for skilled workers and 62% - in training programs for middle-level specialists. More than half of the study participants (53%) receive engineering and technical education. Only about 5% of students pay for their education. The rest study at the expense of budget funds.

To start analyzing the human capital of successful and unsuccessful college students according to an objective criterion (estimates), it is necessary to mark with the fact that only half of the surveyed students' study without satisfactory grades (52%). As can be seen from Table 1, the value of knowledge that can be obtained in the education system is almost 2 times lower for objectively unsuccessful students than for successful students. The successful and unsuccessful college students are also distinguished by the desire to learn (Table 2). Unsuccessful students were twice less likely than successful students to declare a desire to learn (24.6% vs. 48.9%).

Tab. 1: The attitude of successful and unsuccessful college students to the knowledge that can be obtained in the education system, %

Attitude to the knowledge that can be obtained in the education system	Objectively successful	Objectively unsuccessful	In the whole array
I value this knowledge very much, and I try not to miss the opportunity to study, including science and self-education	42,2	22,1	32,6
The knowledge that I receive does not matter for my future life and work, it is enough to get an official document on education	13,8	20,7	17,1
I am quite satisfied with the knowledge that I get during lessons, lectures, seminars, practice	44,0	57,1	50,3
Total	100,0	100,0	100,0

Source: author's calculation; asymptotical (two-sided) significance = 0.000 and the Cramer's coefficient = 0.216

Tab. 2: The desire of successful and unsuccessful college students to learn, %

Desire to learn	Objectively successful	Objectively unsuccessful	In the whole array
I want to learn, it gives me pleasure, increases self-esteem	48,9	24,6	37,3
I don't want to learn, but I have to do it	6,8	11,6	9,1
I understand that it is necessary to study, although there is no special desire	44,2	63,8	53,6
Total	100,0	100,0	100,0

Source: author's calculation; asymptotical (two-sided) significance = 0.000 and the Cramer's coefficient = 0.252

In part, the reluctance of unsuccessful students to learn can be explained by the difficulties that arise in the process of learning. Unsuccessful students were more likely to say that their studies are difficult for them, and they do not cope with difficulties (asymptotic (two-sided) significance = 0.000 and the Cramer's coefficient = 0.244). This aspect probably tends to increase over time. The answers to the question about the change in the desire to learn in unsuccessful students over the past 1-2 years were expressed in a decrease in the desire to learn (asymptotic (two-sided) significance = 0.000 and the Cramer's coefficient = 0.247).

Behavioral resources were evaluated by studying the activity of involvement of successful and unsuccessful students in the system of additional education, participation in

competitions, Olympiads, and research activities, as well as involvement in labor activity. It turned out that unsuccessful students are somewhat less likely than successful ones to be included in the system of additional education (asymptotic (two-sided) significance = 0.004 and the Cramer's coefficient = 0.078) and engage in self-education (asymptotic (two-sided) significance = 0.000 and the Cramer's coefficient = 0.144). They are less likely than successful students to have participated in the past and are currently participating in various Olympiads and competitions (asymptotic (two-sided) significance = 0.000 and the Cramer's coefficient = 0.224). Unsuccessful students are less likely than successful students to be involved in research activities (asymptotic (two-sided) significance = 0.000 and the Cramer's coefficient = 0.213). We hoped that the refusal to participate in educational practices would be compensated to some extent by the participation of unsuccessful students in the labor activity. However, we did not find significant differences in the involvement of successful and unsuccessful students in the labor activity.

Finally, it was important to analyze the students' satisfaction with the resources available to them. The correlation analysis showed a lower level of satisfaction of unsuccessful college students than successful ones with all resources (Table 3). The greatest differences between successful and unsuccessful students were manifested in their satisfaction with their attitude to learning (the Cramer's coefficient = 0.263) and academic achievements (the Cramer's coefficient = 0.273).

Tab. 3: Satisfaction of successful and unsuccessful college students with the resources available to them, % of the respondents' number

How satisfied are you at the moment...	Objectively successful	Objectively unsuccessful	In the whole array
Their attitude to learning	75,7	50,3	63,5
The volume and quality of knowledge, and skills acquired during learning	71,0	62,7	67,0
The ability to apply the acquired knowledge in practice	75,4	68,7	72,2
Their academic achievements	80,4	55,0	68,2
Choosing a future profession	78,5	65,6	72,3

Source: author's calculation

There are fewer college students who subjectively consider themselves unsuccessful in their studies (28.5%). The ratio of objective and subjective assessment of the success of

college students is presented in Table. 4. It is important to emphasize the essential relationship between the objective and subjective assessment of the educational success of college students (asymptotic (two-sided) significance = 0.000 and the Cramer's coefficient = 0.388).

Tab. 4: The ratio of objective and subjective assessment of the success of college students, % of the respondents' number

Subjectively (un)successful / Objectively (un)successful	Objectively successful	Objectively unsuccessful	Total
Subjectively successful	46,0	25,5	71,5
Subjectively unsuccessful	6,1	22,4	28,5
Total	52,1	47,9	100,0

Source: author's calculation; asymptotical (two-sided) significance = 0.000 and the Cramer's coefficient = 0.388

Among subjectively unsuccessful students, as well as in the situation with an objective assessment, there are twice as many men as women. The influence of the family's financial situation on educational success is interesting. In an objective assessment of success, we found a slightly higher proportion of unsuccessful students from the lower stratum. When subjectively classifying themselves as unsuccessful students, this relationship was not revealed. A similar situation can be seen in the level of the program in which the student is studying. In an objective assessment of success, a greater proportion of unsuccessful students are trained in training programs for skilled workers than in training programs for middle-level specialists. In a subjective assessment, this trend is less pronounced.

The comparative analysis showed a general similarity in the characteristics of the human capital of college students who objectively have academic failure, and students who subjectively refer to themselves as unsuccessful. However, the author revealed a tendency to increase the negative characteristics of the second (subjectively unsuccessful) group of students. We believe this is due to the fact that the majority of students (78.6%), subjectively referring to themselves as unsuccessful, really have academic failure. At the same time, about 21% of college students who have good grades attributed themselves to unsuccessful students.

Conclusion

Measuring and evaluating the human capital of student educational communities is an important theoretical and empirical task. Its relevance is due to the possibility of adjusting the

motivational, value, cognitive and behavioral resources of students, because they are in the process of forming their human capital.

Our analysis revealed problematic areas in the formation and development of human capital not only for unsuccessful college students, but also for college students in general. Unsuccessful college students do not appreciate the knowledge gained, they study without much desire. It is difficult for them to learn, and they often do not cope with difficulties. They do not participate in competitions and Olympiads, and in research activities. Unsuccessful students are more likely than successful students to be dissatisfied with their attitude and academic achievements, the quantity and quality of knowledge and skills acquired during their studies, and their professional choices.

A comparative analysis of the objective and subjective assessment of success showed not only the similarity of the characteristics of the human capital of objectively unsuccessful college students and college students who subjectively refer to themselves as unsuccessful, but also an increase in the negative characteristics of students who subjectively refer to themselves as unsuccessful. Although there are fewer college students who subjectively describe themselves as academically unsuccessful (only about 30%), there are 21% of objectively successful students who subjectively describe themselves as unsuccessful, which is alarming.

We believe that the presented typology of learning success (four groups of students) in terms of objective and subjective success can be used as a basis for differentiated professional assistance in overcoming academic failure.

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Contact

Nina Shabrova

Ural Federal University

620002, Ekaterinburg, Mira st., 19

n.v.shabrova@urfu.ru