

Veronika Sharok<sup>1</sup>

**Article info:**

Received 30.09.2017

Accepted 17.03.2018

UDC – 005.336.3:378.1

DOI – 10.18421/IJQR12.02-01

## **ROLE OF SOCIO-PSYCHOLOGICAL FACTORS OF SATISFACTION WITH EDUCATION IN THE QUALITY ASSESSMENT OF UNIVERSITY**

**Abstract:** *The aim of the research was to evaluate role of socio-psychological factors of satisfaction with university education. Study was conducted in 2 stages. On the first stage data were obtained from 350 respondents, on the second stage from 127 respondents. Sample was divided into four groups: satisfied and dissatisfied with university education students; satisfied and dissatisfied with future profession students. The main factor contributing to students' adaptation to the university, and, consequently, indirectly affecting the satisfaction with educational process is a factor of interpersonal communication: relationship with other students, professors and curator of the group, satisfaction with surroundings and emotional acceptance of other people, social status in the group. Emotional sphere, motivation and socio-psychological adaptation besides methodological aspect are the main factors of satisfaction with university education. Satisfied with university education and future profession individuals are characterized by psychological well-being, while for dissatisfied individuals indifference, renunciation and negation are typical. Conscious choice of university and future profession are also preconditions of satisfaction with education. Results of this study make it possible to expand the existing ideas about components of satisfaction with education at the university. Thus, knowing the possible causes of students' dissatisfaction, we can eliminate negative factors and thereby improve not only satisfaction with university, but university rating, which is very important in today's world.*

**Keywords:** *Satisfaction with University Education, Socio-psychological Adaptation, Interpersonal Relationships, Motivation, Emotional Sphere, Quality Assurance.*

### **1. Introduction**

Higher education has a great impact on

economic growth. University student tend to consider as “customer” or consumer of educational services, thus students' satisfaction has become a significant element of quality assurance. University students' satisfaction affects on institutional success because it helps to attract additional students

---

<sup>1</sup> Corresponding author: Veronika Sharok  
email: [sharok\\_spmi@mail.ru](mailto:sharok_spmi@mail.ru)

or “customers”. Results of the assessment of students’ satisfaction are becoming more transparent and available. So improving the satisfaction of students for most universities around the world is an important point. Thus, monitoring the opinions of consumers of educational services is an effective tool for management decisions to optimize the educational policy in feedback mode (Yanova, 2015).

Researchers have measured students’ satisfaction in context of different characteristics: learning experiences, alumni satisfaction, intellectual and personal developments, relationships between faculty staff and students, grades, gender, origin, religion, migrations from one university to another, service quality and so on (Daniel et al., 2017).

It is clear, that university students’ satisfaction depends on many factors. Some authors attribute to such factors ideas about the chosen university and future profession, social status of students, different expectations about results of university education (Andrienko, 2011) and successful socio-psychological adaptation (Sharok, 2015). Other distinguish more factors, such as level of the teaching staff, friendly relationships between faculty staff and students, international activity of university, possibility for further employment, image of the university inside the country and in the world, information and methodological support of the educational process and the level of university infrastructure development (Mizintseva et al., 2016). The question remains what has the greatest impact on satisfaction with education.

It makes sense to consider the dynamics of the satisfaction with educational process. At the formation stage of satisfaction with education for entrants it is important to recognize the level of prestige of the university and their future profession in society in comparison with other universities and professions (Gazizulina et.al., 2017, Klochkov, 2017). Students want to see the

value and importance of their education to the society, feel confident in the future and hope for recognition of their achievements on the social level. Such recognition can be expressed through the level of wages and the positive public opinion regarding their future profession (Andrienko, 2011). However, students of the same university may have different evaluation of the importance of their education. This is due to the influence of socio-psychological factors, such as students’ personality features and socio-psychological adaptation to the university (Klochkov et.al., 2017; Gazizulina et.al., 2017).

The main changes in students’ evaluation of quality of university education occurs during their first year, when their expectations compare with reality. For some students it is a challenge to personal growth, but for others it leads to emotional maladjustment and depression (Rautopuro & Vaisanen, 2000). It also depends on psychological features.

So let us consider in more details socio-psychological aspects of university students’ satisfaction with education.

The importance of psychological well-being (adequate level of self-esteem, absence of stress and depression) for social adaptation and academic progress of first year students is a popular topic in researches (Tinto, 1993). For example, according “happy-productive” student theory (Cotton et al., 2002) high level of psychological distress at university correlates with low satisfaction.

Socio-psychological adaptation affects on university students’ satisfaction. Factors contributing to the socio-psychological adaptation and thereby increasing satisfaction with the education are meaningful life, low level of aggression and anxiety, sustainable positive attitude toward surrounding reality, satisfaction with social relationships, work and life (Klochkov et.al., 2017). Difficulties in communicating and relationships in the new team, various worries impede the adaptation (Sharok,

2015). Thus, one of the most important factors of successful socio-psychological adaptation and satisfaction with the education process are interpersonal relationships with other students and teaching staff.

Let us consider the role of teaching staff in students' socio-psychological adaptation and satisfaction with education in more details. It was revealed that the interest in science is a key motive, followed by the ambition for future work. Such interest may be developed by new conceptions of learning (Stefanovic et al., 2009; Kalinić et al., 2011) or some innovative methods or courses (Goldobina & Orlov, 2017; Katuntsov et al., 2017; Vakhnin, 2017). Also, quality of the teaching staff, in particular the ability of the teacher to maintain the students' attention and to provide encouragement and advice is one of a key factor of student satisfaction (Solinas et al., 2017). Availability of teacher support predicted study satisfaction, and it had a major influence on the students' psychological well-being (Winefield, 1993).

Thus teaching staff may improve learning. One way of it is to provide positive feelings of self-confidence and help students to cope with such negative emotions and feelings as anger, anxiety, self-doubt, frustration and so on (Rautopuro & Vaisanen, 2000).

There is an implicit idea among some representatives of teaching staff that student-centered approach to learning is not as effective as teacher-centered approach. They suppose that professors should use power and authority and should be demanding and strict. If professors are kind and empathic students will not study effectively (Klochkov, 2016). Some authors are disagreed with it. It was found that control and demands as well as affiliation lead to students' academic achievement and learning motivation (Passini et al., 2015). Let us discuss such points of view in the context of socio-psychological adaptation to agree or disagree with it.

It should be noted that satisfaction with education consists among other factors from satisfaction with relationships with professors. Students' satisfaction with relationships with professors is affected by the way students perceive and evaluate professors (Klochkov et.al., 2016). For most students are increasingly important such personality features of professors as respect and kindness to them (Beljaeva, 1998; Vasil'eva & Judina, 2007). The study of evaluation of professors by students has showed that the main factor of professionally significant traits of professors includes kindness, empathy, humorous, stimulating the activity of the students and the practical application of the material under study (Beljaev & Sharok, 2015).

So we may say that it is common for professors who use student-centered approach to learning. The presence of these features provides high evaluation of professor as a professional, and their complete absence leads to dissatisfaction by professors. Thus, communication features of professors are the most important for students (Klochkov et.al., 2016).

It was also found, that satisfaction with teaching and learning consists of two related concepts, emotions and perception of quality, while such concepts are positively correlated with higher levels of psychological need fulfillment (White & Fry, 2014).

Thus, socio-psychological adaptation, including well-being, and interpersonal relationships indirectly affect university students' satisfaction.

**Aim and Hypotheses:** The aim of the present study was to evaluate role of socio-psychological factors of satisfaction with university education.

Summarizing mentioned above we need to check the following hypotheses.

H1. Interpersonal communications are indirectly affecting the satisfaction with educational process.

- H2. The most important factor of successful socio-psychological adaptation is interpersonal relationships with other students and teaching staff.
- H3. Low adaptation of students is closely linked to frustration in interpersonal relationships.
- H4. Emotional sphere, motivation and socio-psychological adaptation besides methodological aspect are the main factors of university students' satisfaction.
- H5. Conscious choice of university and future profession are preconditions of satisfaction with education.
- H6. Negative states are usual for dissatisfied with education students, thus, education is just one of the aspects that correlated with stress and anxiety.

## 2. Materials and methods

### 2.1. Materials

As the most appropriate to aim and hypotheses formulated in the study the following methods were used:

#### a. Questionnaire "Evaluation of satisfaction with university education" developed by author

The questionnaire consists of 25 questions relating to various aspects of satisfaction with education at the university. These questions have scale of answers ("Absolutely agree", "Rather agree", "Rather disagree", "Absolutely disagree", "Difficult to answer"). Also the questionnaire consists of items concerning motivation of choice the university and future profession. According to previous research of author these questions have following option of answers. For motivation of choice the university: high rating and prestige of the university; quality of education; required profession; facilities and resources; advice of friends or relatives; by chance. For motivation of choice future profession: high rating and prestige; required

profession; interest; evade a question; advice of friends or relatives, lowest passing score. The questionnaire also has 6 demographic questions to find out age, gender, hometown, features of the student residence, faculty and study year.

#### b. Luscher Color Test

To conduct Luscher Color Test (Luscher, 1969) it is necessary to display eight color cards to the test subject. Respondent should choose the most pleasant color, and this card should be taken off. Then he should choose the most pleasant color among the remaining cards and the chosen card should be also taken off. He should continue, until all the cards have been taken. Then the whole procedure should be conducted one more time. The second choice is considered to be more valid, because it is impulsive, so just second choice is better to take into account in research.

The basic colors are blue, green, red and yellow, while the auxiliary colors are violet, brown, black and grey. Meanings of colors and their numbers are provided in Table 1.

If one of four basic colors is not on the five first positions, it will indicate some psychological problems. According to Luscher (1969), it means, that person is psychologically disturbed, may have conflicts and feel repressions. Rejection of the color can be seen as a source of stress. Preference of auxiliary colors, grey, brown or black, shows a negative attitude toward concepts under study or even toward life. If one of auxiliary colors is placed on the first three positions, it may be considered as a special form of anxiety compensating behavior. If one of the basic color is on the 6th place, it is indicated by the sign "-", and all other colors that are behind it (7th - 8th position) are denoted by the same sign. They should be considered as rejected colors, as a cause of anxiety and negative state.

**Table 1.** Meanings of Colors

Colors	Meanings
Blue (1)	“Depth of Feeling”. Calm, sense of pure peace, tenderness, satisfaction
Green (2)	“Elasticity of Will”. Confidence, persistence, self-assertion, pride, headstrongness, control
Red (3)	“Force of Will”. Aggression, competition, action, desire, excitement, sexuality
Yellow (4)	“Spontaneity”. Activity, sociability, aspiration, exhilaration
Violet (5)	“Identification”. Unrealistic/ wishful fulfillment, emotional immaturity, charm, enchantment
Brown (6)	Aspiration to comfort and safety, sensual pleasure, corporeal needs, weakness, fatigue
Black (7)	Nothingness, utter disregard, rejectionist protest, renunciation, utter discontent with one's life
Grey (0)	Non-involvement, indifference, concealment

Also it is possible to conduct color association test. Respondents see selected words or phrases (in case of this study the following words were presented: myself, past, present, future, friend, study, my university, I am a student, groupmates, professors, exam results, job in chosen degree field) and should point what color are associated with each words or phrases. Then associated colors and its position in the first part of the test are analyzed.

**c. Diagnostics of the actual structure of personal value orientations by S.S. Bubnova (Shapar, 2005)**

This questionnaire is designed to study the implementation of personal value orientations in real life. The questionnaire contains 48 closed questions with which the respondent can agree or disagree. The responses reveal the prevailing values of a respondent. The questionnaire includes 8 scales: recreation and entertainment; high level of material well-being; help towards and compassion for others; love; high social status and glory; family; communications; health. The degree of each component in the multistructural personal value orientations representation is determined by using a key represented in an answer form.

**d. Questionnaire developed by author**

The questionnaire developed by author consists of 16 questions relating to various aspects of satisfaction with education and socio-psychological adaptation. 6 items are open questions. They are dedicated to reasons of choice of the university, differences of school and university education, expectations from the study at the university, situations that cause anxiety and factors that facilitate and impede students' adaptation. 5 questions have scale of answers (“High”, “Medium”, “Low”) that determines the level of student's social status in the group, student's satisfaction with education and his or her group, relationship with professors and curator. The questionnaire also has 5 demographic questions to find out the age, gender, hometown, features of the student residence and the examination mark at the university admission.

**e. The social and psychological adaptation questionnaire developed by C. Rodgers and R. Dymond (modified by Raygorodskij) (Rajgorodskij, 2000; Riddle et al., 2000)**

This questionnaire consists of 101 questions. Subjects should select one of the seven variants of answers: “This is exactly not about me” = 0; “This is not typical for me in

most cases" = 1; "I doubt that this could be attributed to me" = 2; "I do not dare to attribute it to me" = 3; "This is similar to me, but I am not sure" = 4; "This is similar to me" = 5; "This is exactly about me" = 6. The fundamental subscale "adaptation" optimally reveals the psychosocial adaptation of personality. Also questionnaire measures 7 subscales (false scale, self-acceptance, acceptance of other people, emotional comfort, internality, dominance and escapism) which are assessed as components supplementing the psychosocial adaptation of a personality.

## 2.2. Data analysis

For processing we used the following methods: qualitative method for nominative data (Chi-squared test) and quantitative methods for metric data (Student's t-test, Fisher's F-test and Pearson's r correlation test). Statistical processing was performed using Statistica 6.0 software.

## 2.3. Participants

Study was conducted in 2 stages. Firstly, different aspects of satisfaction with university education, emotional and axiological spheres were analyzed. The object of the study was students of Saint-Petersburg Mining University of different years: 222 first year students (96 females and 126 males, mean age = 18.29); 62 second year students (41 females and 21 males, mean age = 19.36), 34 third year students (18 females and 16 males, mean age = 20.19); 24 students of fourth year (19 females and 5 males, mean age = 20.95) and 8 students of fifth year (5 females and 3 males, mean age = 21.75). The total number of respondents: 350 people. On the second stage some improvements were made: satisfaction with university education and socio-psychological adaptation were analyzed. The object of the second stage of the study was also students of Saint-Petersburg Mining University of different

years: 42 first year students (33 females and 9 males, mean age = 17.82); 26 second year students (21 females and 5 males, mean age = 18.61) and 59 students of fourth year (52 females and 7 males, mean age = 20.76). The total number of respondents: 127 people.

According to questionnaire "Evaluation of satisfaction with university education" respondents were divided into two groups: satisfied (SU) and dissatisfied (DSU) with university education students. Group with satisfied students consists of respondents who pointed, that they are absolutely or rather agree, that they are satisfied with university education at whole. Number of respondents in this group is 295 individuals. Group with dissatisfied students consists of respondents who pointed, that they are absolutely or rather disagree, that they are satisfied with university education at whole. Number of respondents in this group is 24 individuals. Also missing data was collected: respondents who had difficulties to answer whether they are satisfied with education or not (31 respondents).

Also sample was divided into two groups: satisfied (SP) and dissatisfied (DSP) with future profession students. Group with satisfied students consists of respondents who pointed, that they are absolutely or rather agree, that they are satisfied with their choice of future profession at whole. Number of respondents in this group is 281 individuals. Group with dissatisfied students consists of respondents who pointed, that they are absolutely or rather disagree, that they are satisfied with their choice of future profession at whole. Number of respondents in this group is 35 individuals. Also missing data was collected: respondents who had difficulties to answer whether they are satisfied with their choice of future profession or not (34 respondents).

Such group assignment is not surprising. Usually most of students satisfied with their universities, so it is difficult to find enough respondents for dissatisfied with education

or future profession groups.

### 3. Results

Comparative analysis showed that for satisfied with university education students such values as recreation and entertainment are typical ( $SU = 3.91$ ;  $DSU = 3.31$ ;  $t = -2.06$ ;  $p \leq .05$ ). According Color Test satisfied with future profession students are also characterized by low level of anxiety ( $SP = 2.24$ ;  $DSP = 3.23$ ;  $t = 1.98$ ;  $p \leq .05$ ). It means that such respondents are not under pressure and feel free. In most of dissatisfied with future profession students' choices yellow color is placed on the 6th position or further. It means, that for them reason of anxiety is usually in isolation, in problems in relationships and in disappointment. Also for 20% of them red color is the most unpleasant. It means that anxiety may also be caused by lack of vitality, distress and conflicts.

Anxiety or stress among all students are caused by the following situations: training requirements (session, term papers, essays) (59.83%), organizational problems (basically queues) (7.69%), conflict relations with professors (5.98%), lack of information (4.27%), lack of time (3.42%), public speaking (1.71%), groupmates (0.85%).

Concerning socio-psychological adaptation the following was revealed. According to the respondents it was found that the following points help freshmen's adaptation: interaction with professors (25%), interaction with fellow students (20.19%), joint university events (13.46%), help of senior students (11.54%), the university atmosphere (8.65%), personal characteristics (4.81%), time (3.85%), extra-curricular activities (3.85%), education (2.88%), the necessary information (0.98%).

As the factors that hinder the adaptation of freshmen, respondents identified the following: students' personal features contributing to the establishment of relationships (23.08%), new requirements

(17.95%), organizational problems (11.11%), changes (10, 26%), arrogance of other students (4.27%), unsatisfactory relationships with senior students (3.42%), excessive concentration on their studies (0.85%), lack of knowledge (0.85%). 13.8% of respondents pointed that nothing prevents adaptation of freshmen.

Thus, it is clear that low adaptation of students is closely linked to frustration in interpersonal relationships. Problems in interpersonal relationships are the major obstacle to successful adaptation because it creates emotional stress and can distract from the education or even form a negative attitude to it. Students who do not experience frustration in interpersonal relationships are characterized by conscious approach to learning, they are motivated and have good results of school learning.

At the level of statistical trend ( $\chi^2 = 9.81$ ;  $p = .08$ ) specific motivation to choose the university in SU and DSU groups was found. In SU group the following rating of motives is exist: high rating and prestige of the university (27.44%), required profession (20.22%), advice of friends or relatives (18.05%), quality of education (15.88%), by chance (13.72%), facilities and resources (4.69%). For respondents of DSU group the following rating of motives is typical: advice of friends or relatives (40%), high rating and prestige of the university (30%), by chance (20%), quality of education (5%), required profession (5%).

The same is peculiar to satisfied with future profession group and dissatisfied one ( $\chi^2 = 10.9$ ;  $p = .05$ ). In SP group the following rating of motives is exist: high rating and prestige of the university (25.23%), required profession (20.48%), advice of friends or relatives (17.89%), quality of education (16.06%), by chance (14.22%), facilities and resources (4.13%). For respondents of DSP group the following rating of motives is typical: high rating and prestige of the university (33.33%), advice of friends or relatives (29.63%), by chance (25.93%),

quality of education (7.41%), required profession (3.7%). Also at the level of statistical trend differences in motivation to choose future profession in SP and DSP groups were found ( $\chi^2 = 10.7$ ;  $p = .07$ ). There is similar rating of motives but different percentage. In SP group the following rating of motives is presented: required profession (38.76%), interest (29.19%), advice of friends or relatives (11%), evade a question (8.61%), high rating and prestige of the university (7.66%), lowest passing score (4.78%). In DSP group rating of motives is the following: required

profession (25.93%), interest (25.93%), advice of friends or relatives (22.22%), evade a question (22.22%), lowest passing score (3.7%).

Consequently, it means that satisfaction with education is associated with conscious choice of university and future profession. If choice is made by chance or it is not a self consistent decision it will be a frustration and dissatisfaction as a result.

Analysis of color associations revealed differences presented in Table 2.

**Table 2.** Color Associations

Ideas	Groups	(1), %	(2), %	(3), %	(4), %	(5), %	(6), %	(7), %	(8), %	$\chi^2$
Myself	DSU	36.8	0.00	21.0	0.0	15.7	0.0	15.7	10.5	17.66*
	SU	23.6	13.4	18.7	23.2	11.8	2.4	4.0	2.4	
	DSP	36.6	0.0	10.0	3.3	23.3	3.3	16.6	6.6	25.51***
	SP	23.0	14.1	20.0	23.9	10.6	2.1	3.4	2.5	
Present	DSU	15.7	5.2	5.2	15.7	10.5	10.5	10.5	26.3	19.7**
	SU	12.2	8.5	21.6	27.3	10.6	9.8	0.8	8.9	
	DSP	6.6	13.3	23.3	16.6	6.6	3.3	10.0	20.0	24.25***
	SP	13.2	7.6	20.0	27.7	11.1	10.6	0.4	8.9	
Future	DSU	5.2	5.2	10.5	36.8	0.0	5.2	10.5	26.3	25.42***
	SU	8.5	8.5	21.2	33.8	16.7	3.6	4.0	3.2	
	DSP	10.0	10.0	10.0	20.0	13.3	6.6	10.0	20.0	22.68**
	SP	8.1	8.1	21.7	35.9	15.8	3.4	3.8	2.9	
Study	DSU	0.0	10.5	5.2	5.2	10.5	31.5	21.0	15.7	13.08
	SU	16.3	23.6	10.2	4.9	10.2	11.4	8.9	14.2	
	DSP	3.3	13.3	3.3	6.6	6.6	26.6	23.3	16.6	17.88*
	SP	16.6	23.9	10.6	4.7	10.6	11.1	8.1	14.1	
I am a student	DSU	10.5	26.3	10.5	5.2	0.0	10.5	10.5	26.3	0.66**
	SU	22.0	16.7	16.7	15.9	10.2	8.9	4.9	4.4	
	DSP	13.3	16.6	10.0	13.3	3.3	10.0	10.0	23.3	21.34**
	SP	22.2	17.5	17.0	15.3	10.2	8.9	4.7	3.8	
My univer-sity	DSU	5.2	47.3	0.0	5.2	0.0	15.7	15.7	10.5	18.17*
	SU	20.0	21.6	11.4	15.5	10.2	9.3	4.0	7.7	
Group-mates	DSU	5.2	5.2	10.5	15.7	10.5	10.5	10.5	31.5	15.87*
	SU	11.0	13.4	16.7	22.4	17.1	7.7	4.0	7.3	
Friend	DSU	31.5	10.5	21.0	15.7	5.2	0.0	10.5	5.2	15.37*
	SU	13.8	10.6	19.1	28.5	12.6	9.3	1.2	4.4	
Job in chosen degree field	DSP	13.3	6.6	3.3	10.0	3.3	16.6	23.3	23.3	28.42***
	SP	9.8	10.2	18.3	29.0	11.1	5.9	5.9	9.4	

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

As we can see from Table 2 satisfied with university education and future profession students more often associate such concepts as myself, present, future, study, I am a student, my university, groupmates, friend and job in chosen degree field with basic colors (blue, green, red and yellow), especially with yellow and red. It means that such concepts have positive meaning for them, they are emotionally stable, do not have any serious conflicts and do not feel repressions. Frequent preference of yellow color in associations related to concepts mentioned above means that they associate these concepts with activity, sociability, aspiration, expectancy and exhilaration. Yellow also symbolizes joy, happiness and intellectual energy. Red color is associated with action, confidence, courage, vitality, joy, strength. Extroverts tend to prefer and choose red color (Luscher, 1969). Preferences of these colors and associations of these colors with different aspects of education guarantee satisfaction with education. It should be noted, that when concept of friends and groupmates is associated with yellow color, it means, that person does not feel tension or anxiety in this context, but enjoy interpersonal relationship, ready for interaction and communicative. As it was mentioned above, such psychological features are peculiar for individuals for whom socio-psychological adaptation is peculiar as well.

Dissatisfied with university education and future profession students more often associate concepts mentioned above with auxiliary colors: grey and black. Such color preference indicates anxiety concerning ideas correlated with all aspects of study, surrounding people, future life and themselves. Frequent preference of grey color means indifference. Grey color is not a tension, but also is not limppness. Grey is a border. Preference of grey color means that individual wants to build a cushion around to prevent stimulation. Exhaustion and anxiety may provoke preference of that color. Choice of black color indicates renunciation,

negation, fears and anger. If something is associated with black color it means, that person denies it and wants to escape it. It is important to notice, that dissatisfied with university education and future profession students more often associate their university and study with black color, while other concepts with grey.

Nevertheless, dissatisfied with university education and future profession students sometimes associate some concepts with basic colors, in particular, a lot of such students associate themselves and their friends with blue color and their university with green color. Blue is the color of quiet and passivity, sadness and devotion. It should be mentioned, that most of respondents associate themselves with color, which they have chosen as the most pleasant (94.74%). It means that they need relaxation and satisfaction, but their university is not a place, where they can get it. Green color is a color of self affirmation, dominance and tension. And for most of dissatisfied with university education students green color is not on the top positions. More than a half of respondents putted green color on the fourth position and further.

We may conclude that for dissatisfied with university education and future profession individuals psychological well-being is not peculiar. Thus for them education is just one of the aspects that correlated with stress and anxiety. These negative states are usual for them.

Correlation analysis has confirmed the data obtained by other assays, added a new data and showed the existence of the following correlations relating to satisfaction with education, adaptation and interpersonal relationships: direct correlations between satisfaction with education and amount of information from the curator ( $r = .34$ ;  $p \leq .01$ ), satisfaction with study group ( $r = .34$ ;  $p \leq .01$ ), adaptation ( $r = .31$ ;  $p \leq .01$ ) and acceptance of other people ( $r = .26$ ;  $p \leq .05$ ); direct correlations between satisfaction with study group and social status in this group ( $r$

= .30;  $p \leq .01$ ), amount of information from the curator ( $r = .23$ ;  $p \leq .05$ ), acceptance of other people ( $r = .48$ ;  $p \leq .001$ ) and feeling free to professors ( $r = .24$ ;  $p \leq .05$ ); direct correlations between adaptation and feeling free to professors ( $r = .21$ ;  $p \leq .05$ ) and amount of information from the curator ( $r = .29$ ;  $p \leq .05$ ); direct correlations between acceptance of other people and social status

in this group ( $r = .35$ ;  $p \leq .01$ ), amount of information from the curator ( $r = .28$ ;  $p \leq .05$ ); direct correlations between emotional comfort and amount of information from the curator ( $r = .18$ ;  $p \leq .05$ ).

Correlations between satisfaction with education and future profession and different aspects of education are showed in Table 3.

**Table 3.** Correlations between satisfaction with education and future profession and different aspects of education

Aspects of education	Satisfaction with future profession	Satisfaction with university education
Admission board	0,16	0,19
High quality of education	0,35**	0,40***
Timetable	0,19	0,08
Social assistance	0,22	0,22
Facilities	0,22	0,30*
Library resources	0,17	0,29*
Socio-psychological climate	0,38**	0,52***
Activities	0,02	0,02
Possibility of initiative	0,01	0,17
Students' board	0,25	0,22
Student science	0,30	0,25*
Scientific results	0,13	0,29*
Curriculum	0,23	0,39***
Adequate demands	0,36**	0,46***
Educational methods	0,45***	0,42***
Practices	0,26	0,16
Professors' ability to explain subject	0,40***	0,33**
Interesting classes	0,25	0,34**
Professors stimulate student creativeness	0,29	0,34**
Useful feedback from professors	0,39**	0,35**
Curator	0,36**	0,26*
Adequate questions on exams	0,20	0,27*
Valid estimate	0,34**	0,42***
Satisfaction with future profession	1,00	0,55***
Satisfaction with university education	0,55***	1,00

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

So it is clear that socio-psychological climate, adequate demands, educational methods, valid estimate, high quality of education and curriculum are the main preconditions of satisfaction with university

education. Also the following aspects have influence on satisfaction with education: professors' ability to explain subject, interesting classes, professors stimulate student creativeness, useful feedback from

professors. Educational methods, professors' ability to explain subject, useful feedback from professors, socio-psychological climate, adequate demands, interaction with curator, high quality of education and valid estimate are the main components of satisfaction with future profession. Thus besides methodological aspects, socio-

psychological aspects are important for satisfaction of education.

Analyzing satisfaction with education among different years students it was found that first-year students give higher esteem to the aspects of education presented at Table 4.

**Table 4.** Satisfaction with Different Aspects of Education among Different Years Students

Aspects \ Year of study	1	2	3	4	5	F
Admission board	3.64	3.42	3.24	3.09	2.85	5.89***
High quality of education	3.21	2.88	2.85	2.93	2.71	2.74*
Timetable	3.19	3.19	3.10	2.94	2.00	5.26***
Social assistance	3.23	2.78	3.16	3.00	2.75	2.83*
Curriculum	3.28	2.97	2.91	3.06	2.57	4.01**
Valid estimate	2.99	2.58	2.66	2.60	3.25	3.43**

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

It is typical for freshmen because they are only at the beginning of the educational process and full of hopes and enthusiastic.

#### 4. Discussion

It should be noted that adequate interpersonal relationships improve satisfaction not just with education, but also with work. It concerns all kinds of interaction. For example, studies have shown that mentoring can help in career aspirations, increase motivation, and make positive affect on perceived organizational support and job satisfaction (Heilmann et al., 2008; Salami, 2010). On the basis of interpersonal relationship, mentoring by providing sharing knowledge and experience with the junior staff (Foster et al., 2011) can be used as a tool for growing talent improving the socio-economic status, accelerating the process of adaptation and career development of employees (Khanifar, 2006), yield (Chay et al., 1995), reducing rejection career plateau (Foster et al., 2011), the development of networks of support (Khanifar, 2006), increasing fame (Gibb, 1999), job promotion (Whitely et al., 1991), and therefore lead to positive attitudes and job growth (Foster et al., 2011), increased motivation (Gibb,

1999); satisfaction (Foster et al., 2011; Gibb, 1999), organizational commitment (Heilmann et al., 2008; Foster et al., 2011; Gibb, 1999), increased job success (Whitely et al., 1991) and reduce the desire to leave the organization (Foster et al., 2011). Also mentoring can moderate the relationship between the content plateaus, job satisfaction and tend to leave (Tabarsa & Nazari, 2016). At the university such results may be achieved by students' interaction with teacher staff and, in particular, by curator of the study group.

Concerning adaptation, researchers noted that academic adaptation and satisfaction with university education have positive influence on job satisfaction aspiration (Kim et al., 2016).

Other author found that interpersonal relationship was found to have no effect on class satisfaction. Instead, interpersonal relationship showed an effect on problem solving capability. In other words, although interpersonal relationship does not affect class satisfaction directly, it still has an indirect effect on class satisfaction through problem solving capability (Park & Yim, 2016).

Coping strategies are also indirectly correlated with satisfaction with education. Some authors report, that emotion-focused coping positively correlated with seeing opportunities for interpersonal relationships, for learning and for self-development in university education (Krypel & Henderson-King, 2010). Such goals of education are typical for well adapted students. Other mention, that problem-focused strategies and appraisal-focused strategies, as well as low expression or absence in solving behavior of style oriented on avoidance, emotion-focused coping and coping strategies “accepting responsibility or blame” and “impulsive actions” are optimal for successful educational adaptation (Sorokina, 2005).

There is also a suggestion that emotional intelligence have an effect on academic achievement. And this influence may be mediated by adaptation to university (Garg et al., 2016).

Satisfaction with interpersonal relationship and social adaptation are correlated with anxiety, but this correlation may depend on age. On the whole, there was found a negative correlation between social adaptation and social anxiety. In particular, for adolescents aged 12–13, social anxiety was positively correlated with social rejection, and negatively correlated with social acceptance and popularity. The same tendency was observed in group of adolescents aged 14–15, but correlations were not so hard. In group of adolescents aged 17–18 significant correlations between social anxiety and social adaptation were not found. These results make clear that young adolescents have higher levels of social anxiety and more often suffer from it in comparison with late adolescents. This relation may indicate that high levels of social anxiety may provoke intense distress. In turn, intense distress may decline adolescents’ social performance (Peleg, 2012).

## 5. Conclusions

Thus, the main factor contributing to students' adaptation to the university, and, consequently, indirectly affecting the satisfaction with educational process is a factor of interpersonal communication: relationship with other people (other students, professors and curator of the group), satisfaction with their surroundings and emotional acceptance of other people, social status in the group. Low adaptation of students is closely linked to frustration in interpersonal relationships. In turn, the nature of interpersonal relationships is determined by psychological characteristics of student's personality.

Satisfaction with interpersonal relationships makes it possible to get education emotionally comfortable, thus enabling students to realize their potential.

Emotional sphere, motivation and socio-psychological adaptation besides methodological aspect are the main factors of satisfaction with university education. Satisfied with university education and future profession individuals are characterized by psychological well-being, while for dissatisfied individuals indifference, renunciation and negation are typical.

It should be mentioned, that for dissatisfied with university education and future profession individuals education is just one of the aspects that correlated with stress and anxiety. These negative states are usual for them.

Conscious choice of university and future profession are preconditions of satisfaction with education. For half of dissatisfied with university education individuals choice of university was not self-sufficient or well-informed choice. Thus if we want to increase the number of satisfied with university education students we should pay more attention to their motivation. It should be more work out on the stage of preliminary courses or occupational guidance for

prospective students. Consequently, such efforts may be helpful to university rating and improvement of quality of education.

Results of this study make it possible to expand the existing ideas about components of satisfaction with education at the university. Thus, knowing the possible causes of students' dissatisfaction, we can eliminate negative factors and thereby improve not only satisfaction with university, but university rating, which is very important in today's world.

In future it is interesting to compare results obtained in this research with occurrence of

the same tendency in professional sphere. Satisfaction with work and adaptation to new operating and working conditions may be also associated with interpersonal relationships, motivation and emotional sphere.

**Acknowledgements:** The paper is based on research carried out with the financial support of the grant of the Russian Science Foundation (Project No. 17-78-20145, Social and economic mechanism for mobilising human resources in Arctic region of Russian Federation). Saint-Petersburg Mining University.

## References:

- Andrienko, A. V. (2011). Udovletvorennost' pervokursnikov processom obuchenija v vuze [Satisfaction of first-year students with process of education at the university]. *Sovremennye nauchnye issledovanija*, 3(3), 17.
- Beljaev, V. V., & Sharok, V. V. (2015). Vyjavlenie faktorov, opredelajushih uroven' udovletvorennosti mezhlčnostnymi otnoshenijami «student - prepodavatel'» [Identification of factors that determine the level of satisfaction with interpersonal relations "student-teacher"]. *Sovremennoe obrazovanie: sodержanie, tehnologii, kachestvo*, 1, 89-90.
- Beljaeva, T. E. (1998). O rezul'tatah issledovanija "Prepodavatel' glazami studentov" za osennij semestr 1995/96 uchebnogo goda [About the results of the study "The teacher through the eyes of students" for the fall semester of 1995/96 academic year]. *Izvestija JuFU. Tehnicheskie nauki*, 3, 123.
- Chay, Y. W., Aryee, S., & Chew, I. (1995). Career plateauing: Reactions and moderators among managerial and professional employees. *International Journal of Human Resource Management*, 6(1), 61-78.
- Cotton, S. J., Dollard, M. F., & De Jonge, J. (2002). Stress and student job design: Satisfaction, well-being, and performance in university students. *International Journal of Stress Management*, 9, 147-162.
- Daniel, D., Liben, G., & Adugna, A. (2017). Assessment of Students' Satisfaction: A Case Study of Dire Dawa University, Ethiopia. *Journal of Education and Practice*, 8(4), 111-120.
- Foster, B. P., Shastri, T., & Withane, S. (2011). The impact of mentoring on career plateau and turnover intentions of management accountants. *Journal of Applied Business Research*, 20(4), 33-44.
- Garg, R., Levin, E. & Tremblay, L. (2016). Emotional intelligence: impact on post-secondary academic achievement. *Social Psychology of Education*, 19(3), 627-642. doi:10.1007/s11218-016-9338-x
- Gazizulina, A., Krasulina, O., Borremans, A., Tveryakov, A., Ostapenko, M., & Vasilyeva, S. (2017). Reducing the risk of staff failures. *2017 IEEE VI Forum Strategic Partnership of Universities and Enterprises of Hi-Tech Branches (Science. Education. Innovations) (SPUE)*, St. Petersburg, 199-202. Retrieved from: <http://dx.doi.org/10.1109/IVForum.2017.8246091>

- Gazizulina, A., Mirolyubova, O., Konakhina, N., Kikkas, K., Grigorieva A., & Danilova, S. (2017). Problems of forming requirements to training of specialists for industrial and economic complex. *2017 IEEE VI Forum Strategic Partnership of Universities and Enterprises of Hi-Tech Branches (Science. Education. Innovations) (SPUE)*, St. Petersburg, 196-198. Retrieved from: <http://dx.doi.org/10.1109/IVForum.2017.8246090>
- Gibb, S. (1999). The usefulness of theory: A case study in evaluating formal mentoring schemes. *Human Relations*, 52(8), 1055-75.
- Goldobina, L. A., Orlov, P. S. (2017). BIM technology and experience of their introduction into educational process for training bachelor students of major 08.03.01 «Construction». *Journal of Mining Institute*, 224, 263-272. doi:<http://dx.doi.org/10.18454/pmi.2017.2.263>
- Heilmann, S. G., Holt, D. T., & Rilovick, C. Y. (2008). Effects of career plateauing on turnover a test of a model. *Journal of Leadership and Organizational Studies*, 15(1), 59-68.
- Kalinić, Z., Arsovski, S., Stefanovic, M., Arsovski, Z., & Ranković, V. (2011). The Development of a Mobile Learning Application as Support for a Blended eLearning Environment. *Technics Technologies Education Management TTEM*, 6(4), 1353-1364.
- Katuntsov, E. V., Kultan, Y., & Makhovikov, A. B. (2017) Application of electronic learning tools for training of specialists in the field of information technologies for enterprises of mineral resources sector. *Journal of Mining Institute*, 226, 503-508, doi:<http://dx.doi.org/10.25515/pmi.2017.4.503>.
- Khanifar, H. (2006). Psychological aspects of career plateau and solutions out. *Management Culture*, 12, 149-56.
- Kim, Y. M, Seo, S. J., & Lee, J. K. (2016). Relation between University Life Adaptation and Future Aspiration of Art Majoring University Students. *Indian Journal of Science and Technology*, 9(25). doi: 10.17485/ijst/2016/v9i25/97203
- Klochkov, Y. (2016). Monitoring centre for science and education. Paper presented at the *2016 5th International Conference on Reliability, Infocom Technologies and Optimization, ICRITO 2016: Trends and Future Directions*, 26-29. Retrieved from: <http://dx.doi.org/10.1109/ICRITO.2016.7784916>
- Klochkov, Y. (2017). Conflicts between Quality Management Methods. Paper presented at the *2017 International conference on infocom technologies and unmanned systems (trends and future directions) (ICTUS)*, 34-36.
- Klochkov, Y., Didenko, N., Makov, K., Zapivahin, I., Ostapenko, M., & Volgina, A. (2017). Employment and professional adaptation of specialists. *2017 IEEE VI Forum Strategic Partnership of Universities and Enterprises of Hi-Tech Branches (Science. Education. Innovations) (SPUE)*, St. Petersburg, 162-164. Retrieved from: <http://dx.doi.org/10.1109/IVForum.2017.8246080>
- Klochkov, Y., Gazizulina, A., & Golovin, N. (2016). Assessment of organization development speed based on the analysis of standards efficiency. Paper presented at the *Proceedings - 2nd International Symposium on Stochastic Models in Reliability Engineering, Life Science, and Operations Management, SMRLO 2016*, 530-532. doi:10.1109/SMRLO.2016.93
- Klochkov, Y., Gazizulina, A., Mirolyubova, O. Glushkov, S., & Knyazkina, E. (2017). Approach to Analysis of Certification Authorities. Paper presented at the *2017 International conference on infocom technologies and unmanned systems (trends and future directions) (ICTUS)*, 733-737.

- Klochkov, Y., Klochkova, E., Volgina, A., & Dementiev, S. (2016). Human factor in quality function deployment. Paper presented at the *Proceedings - 2nd International Symposium on Stochastic Models in Reliability Engineering, Life Science, and Operations Management, SMRLO 2016*, 466-468. Retrieved from: <http://dx.doi.org/10.1109/SMRLO.2016.81>
- Klochkov, Y., Lepelin, A., Vasilega, D., Vasilega, N., Nonieva, K., & Vasilyeva, S. (2017). Professional orientation of students. *2017 IEEE VI Forum Strategic Partnership of Universities and Enterprises of Hi-Tech Branches (Science. Education. Innovations) (SPUE)*, St. Petersburg, 165-167. Retrieved from: <http://dx.doi.org/10.1109/IVForum.2017.8246081>
- Krypel, M. N. & Henderson-King, D. (2010). Stress, coping styles, and optimism: are they related to meaning of education in students' lives? *Social Psychology of Education*, 13(3), 409-424. doi:10.1007/s11218-010-9132-0
- Lüscher, M. (1969). *The Lüscher Color Test*. Ed. Ian Scott. New York: Random House.
- Mizintseva, M. F., Komarova, T. V., Sardarian, A. R., & Yakubova, T. N. (2016). Key Aspects of Managing the Students' Satisfaction with the Learning Environment at the International University. *Indian Journal of Science and Technology*, 9(36). Retrieved from: <http://www.indjst.org/index.php/indjst/article/view/102030>.
- Park, M., & Yim, M. S. (2016). The Effect of Team Projects on Education Satisfaction. *Indian Journal of Science and Technology*, 9(26). doi: 10.17485/ijst/2016/v9i26/97384
- Passini, S., Molinari, L. & Speltini, G. (2015). A validation of the Questionnaire on Teacher Interaction in Italian secondary school students: the effect of positive relations on motivation and academic achievement. *Social Psychology of Education*, 18, 547-559. doi:10.1007/s11218-015-9300-3
- Peleg, O. (2012). Social anxiety and social adaptation among adolescents at three age levels. *Social Psychology of Education*, 15(2), 207-218. doi:10.1007/s11218-011-9164-0
- Rajgorodskij, D. Ja. (2000). *Prakticheskaja psihodiagnostika. Metodiki i testy: uchebnoe posobie [Practical psychodiagnostics. Techniques and tests: tutorial]*. Izdatel'skij dom Bahrah-M.
- Rautopuro, J. & Vaisanen, P. (2000). Keep the customer satisfied, a longitudinal study of students' emotions, experiences and achievements at the University of Joensuu, paper presented at the *European Conference of Educational Research, Edinburgh*, 20-23 September 2000.
- Riddle, B. L., Anderson, C. M., & Martin, M. M. (2000). Small group socialization scale: Development and validity. *Small Group Research*, 31, 554-572.
- Salami, S. O. (2010). Career plateauing and work attitudes: Moderating effects of mentoring others with Nigerian employees. *Europe's Journal of Psychology*, 6(4), 71-92.
- Shapar, V. B. (2005). *Experimental psychology*. Tools. Rostov-on-Don: Phenix.
- Sharok, V. V. (2015). Osobnosti social'no-psihologicheskoy adaptacii studentov raznyh kursov buchenija [Features of socio-psychological adaptation of students of different course years]. *Prikladnaja juridicheskaja psihologija*, 36, 84-95.
- Solinas, G., Masia, M., Maida, G. & Muresu, E. (2012). What Really Affects Student Satisfaction? An Assessment of Quality through a University-Wide Student Survey. *Creative Education*, 3, 37-40. doi:10.4236/ce.2012.31006.

- Sorokina, J. L. (2005). Preodolenie krizisa uchebnoj adaptacii studentami pedagogicheskogo vuza: dissertacija na soiskanie uchenoj stepeni kandidata psihologicheskikh nauk [Overcoming the crisis of educational adaptation by students of a pedagogical university], Jaroslavl.
- Stefanovic, M., Matijevic, M., & Cvjetkovic, V. (2009). Web-based Laboratories for Distance Learning. *International Journal of Engineering Education*, 25(5), 1005-1012.
- Tabarsa, G., & Nazari, A. J. (2016). Examining the Moderating Role of Mentoring Relationship in between Content Plateauing with Job Satisfaction and Willingness to Leave the Organization (Case Study: Iran Ministry of Industry, Mines and Trade). *Indian Journal of Science and Technology*, 9(7). doi: 10.17485/ijst/2016/v9i7/87858
- Tinto, V. (1993). *Leaving college*. Chicago: The University of Chicago Press.
- Vakhnin, N. A. (2017) Human, nature, society: synergetic dimension. *Journal of Mining Institute*, 221, 761-765, doi: <http://dx.doi.org/10.18454/pmi.2016.5.761>.
- Vasil'eva, E. G., & Judina, T. V. (2007). Prepodavatel' glazami studenta, student – glazami prepodavatelja (ob itogah sociologicheskikh issledovanij) [A teacher through the eyes of a student, a student - through the eyes of a teacher (on the results of sociological research)]. *Vestnik VolGU. Serija 6: Universitetskoe obrazovanie*, 10, 95-107.
- White, C., & Fry, T. (2014). Satisfaction with teaching and learning and the role of psychological need fulfillment. *Education + Training*, 56(5), 366-380, doi: <https://doi.org/10.1108/ET-04-2013-0060>
- Whitely, W., Dougherty, T. W., & Dreher, G. F. (1991). Relationship of career mentoring and socioeconomic origin to managers' and professionals' early career progress. *Academy of Management Journal*, 34(2), 331-50.
- Winefield, H. R. (1993). Study work satisfaction and psychological distress in older university students. *Work and Stress*, 7, 221-228.
- Yanova, N. (2015). Assessment of Satisfaction with the Quality of Education: Customer Satisfaction Index. *Procedia - Social and Behavioral Sciences*, 182, 566-573.
- 
- 

**Veronika Sharok**

Saint-Petersburg Mining  
University,  
Department of Sociology  
and Psychology  
2, 21st Line, 199106,  
St Petersburg  
Russia  
[sharok\\_spmi@mail.ru](mailto:sharok_spmi@mail.ru)

---