

ICPE 2017
International Conference on Psychology and Education

**SELF-REGULATION AND PERSONALITY CHARACTERISTICS
OF ELEMENTARY SCHOOL CHILDREN WITH SCHOOL LIFE
SATISFACTION**

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Abstract

This article presents research results on the relationship between the conscious self-regulation of learning activity, personal characteristics, and life satisfaction in younger schoolchildren (N = 156, 85 girls, 71 boys, aged 10-11 years). Russian adaptation of Multidimensional Students Life Satisfaction Scale (MSLSS), Russian version of the «Big Five Questionnaire – Children (BFQ-C)» and Morosanova's Self-Regulation Profile Questionnaire – Junior was used. The focus is made on studying self-regulation and achieving educational goals in the context of the subjective well-being problem. Significant links have been revealed between the personality characteristics, regulatory features and life satisfaction indicators in three subscales: family life, school life, and self-attitude. The largest number of significant links was found for the School Life Satisfaction Subscale. Gender differences were discovered in the manifestations of self-regulation, personal characteristics, and the indicators of life satisfaction in younger schoolchildren: girls have significantly higher level of School Life Satisfaction, some regulatory processes and indicators of Agreeableness and Neuroticism. The study displays specificity of regulatory and personality characteristics of students with high and low level of School Life Satisfaction (SLS). Students with high level of SLS are characterized by a higher development of regulatory processes, self-regulation in general and those particular personality characteristics as Agreeableness, Conscientiousness, Openness.

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Keywords: Self-Regulation; Subjective Well-being, Life Satisfaction, Personality characteristics, Elementary school children.



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1. Introduction

The studies of subjective well-being of children and adolescents, as opposed to adults, started in a relatively recent time. Life satisfaction (LS) related to schooling period has been studied to a lesser extent, despite the importance and relevance of this problem. A few studies show that in younger schoolchildren the feeling of happiness is largely related to the learning activities at school. The success of learning activities, emotional relationships with school teachers are important predictors of general LS in childhood and early adolescence (Suldo, Riley, & Shaffer, 2006; Vecchio et al., 2007). It is shown that children starting from the 8-year age are able to differentiate between the basic constituents of subjective well-being: positive affect, negative affect and life satisfaction, as well as correlate them with different spheres of life - family, school, friends, etc. (Gilman & Huebner, 2003). In addition, researchers can't say that life satisfaction as a whole is unequivocally related to satisfaction in various areas. For example, satisfaction with family life is more than friendship satisfaction associated with high overall life satisfaction, and assessments of school life satisfaction do not correlate with overall life satisfaction (Huebner, 1991).

Life satisfaction is the cognitive component of subjective well-being that plays an important role in positive development (Proctor, Linley & Maltby, 2009). Individual differences in life satisfaction are primarily related to intrapersonal characteristics and temperament (DeNeve & Cooper, 1998; Huebner, 1991; Steel, Schmidt & Shultz, 2008). Extraversion is positively associated with the notion of happiness, neuroticism - vice versa (Diener 1996; Fogle et al., 2002; Furnham & Brewin, 1990). Students with a high level of LS tend to assess themselves higher in terms of self-esteem, internal locus of control and extraversion, and lower in terms of anxiety and neuroticism. However, there are a number of other personal characteristics that affect LS.

We believe that conscious self-regulation can serve as a predictor of LS. Thus, in a number of studies it has been noted that achieving the goals is one of the factors of a person's psychological satisfaction (Brunstein, 1993; Deci & Ryan, 2000; Emmons, 1986; Locke, 2002, Sheldon et al., 2004). It is shown that not only an effective achievement, but even a subjective perception of progress and a sense of movement in the right direction towards the goal, leads to increasing subjective well-being (Wiese, 2007). LS is also associated with such personal characteristics which characterize first of all the person's activity in achieving goals and overcoming difficulties: motivation for achievement, self-efficacy, stress resistance, self-control (Bandura, 1993; Burger, & Samuel, 2017; Hofmann et al. 2014). With regard to learning activities, self-regulation is an important predictor of the education success (Zimmerman, 1990), which in turn allows to say that development of students' self-regulation can be a necessary condition for the children psychological well-being in school.

We consider conscious self-regulation as an integrative cognitive-personal construct. On the one hand, it is a cognitive system of information processing, including Goal planning, Modeling of significant conditions, Programming of actions, Results evaluation, and, on the other hand, it is represented by the peculiarity of instrumental personality-regulatory features: Flexibility, Independence, Reliability, Responsibility, etc. This structure of the conscious self-regulation emphasizes its meta-nature as a psychological means of mobilizing and integrating both cognitive and personality resources for solving problems in different life domains (Morosanova, 2013). To diagnose the development and stylistic

features of the learning activity self-regulation, we developed methods for primary school and adolescent students that are widely used for scientific and practical purposes (Morosanova & Bondarenko, 2015).

2. Problem Statement

The paper is aimed at identifying the role of the conscious self-regulation of the learning activity in providing stability subjective well-being of elementary school children.

3. Research Questions

The study had the following objectives: first, to examine the specifics of relationship between regulatory features, personality characteristics and the indicators of Life Satisfaction in the younger schoolchildren in various spheres (Family, School, Self). Secondly, to carry out a comparative analysis of the regulatory and personality characteristics of junior schoolchildren with different levels of Life Satisfaction.

4. Purpose of the Study

The main goal of the present study is to reveal the specifics of the relationship between regulatory and personal characteristics in a sample of elementary school children.

5. Research Methods

The study sample included 156 students (85 girls, 71 boys) aged 10-11 years educated in the fourth grade of the Russian schools.

Multidimensional Students Life Satisfaction Scale (MSLSS) (Huebner, 2001, Russian adaptation by Gordeeva, Osin, 2007) was used to assess satisfaction of schoolchildren in important life domains, including family, school, self. In Russian adaptation, the MSLSS is a 23-item self-report scale. Each item is rated on a 5-point scale ranging from 1 = never to 5 = always to indicate the extent to which the respondent has felt this way in the indicated time frame. Reliability of scales in our sample: School subscale - $\alpha = 0,886$, Family subscale - $\alpha = 0,840$, Self subscale - $\alpha = 0,782$.

Russian version of the «Big Five Questionnaire – Children (BFQ-C)» - designed to measure personality traits in children of primary and secondary school age: «Neuroticism», «Extraversion», «Openness», «Agreeableness» and «Conscientiousness» (Malykh, Tikhomirova & Vasin, 2015). The Questionnaire consists of 62 statements. Reliability of scales in our sample: Extraversion $\alpha = 0,809$, Agreeableness $\alpha = 0,774$, Conscientiousness $\alpha = 0,870$, Neuroticism $\alpha = 0,743$, Openness $\alpha = 0,702$.

Morosanova's Self-Regulation Profile Questionnaire - Junior (Morosanova & Bondarenko, 2015) consists of 7 self-assessment scales: Planning of goals, Modeling of significant conditions, Programming of Activity, Results Evaluation, Flexibility, Independence, and Responsibility. The general level of self-regulation is estimated by summing up the scores on seven scales. The incentive material is presented in the form accessible for primary school age - descriptions of typical situations associated with organization

of learning activities and pupils' behavior associated with training implementation. The child is to choose to what extent the described behavior is characteristic of himself. Validity and reliability of the questionnaire scales was demonstrated on a sample of more than 400 students.

6. Findings

The descriptive statistics of all variables are presented in Table 1. The variance analysis of the variables by the "sex" factor made it possible to reveal a number of significant differences.

Table 01. Means, standard deviations and ANOVA results by gender

	Measures	ALL		Females		Males		ANOVA-effects of gender
		M	SD	M	SD	M	SD	
Life Satisfaction	Family subscale	33.23	5.81	34.04	5.29	32.27	6.29	.058
	School subscale	27.71	7.55	29.27	7.08	25.85	7.72	.004
	Self subscale	24.83	5.22	25.62	5.23	23.87	5.089	.037
Self-regulation	Goal planning	4.41	1.29	4.63	1.19	4.14	1.35	.020
	Modeling of sign. conditions	4.45	1.36	4.75	1.23	4.10	1.43	.003
	Programming of actions	4.18	1.38	4.25	1.54	4.09	1.18	.457
	Results evaluation	4.03	1.51	4.49	1.45	3.50	1.40	.000
	Flexibility	4.19	1.52	4.24	1.55	4.13	1.48	.642
	Independence	4.42	1.476	4.44	1.47	4.40	1.49	.872
	Responsibility	4.13	1.450	4.23	1.39	4.01	1.51	.358
	General level of SR	29.13	7.608	30.09	8.05	27.97	6.92	.083
Big Five	Extraversion	27.30	4.56	27.81	4.29	26.56	4.92	.168
	Agreeableness	31.46	4.30	32.57	3.81	29.84	4.49	.001
	Conscientiousness	27.00	5.35	27.59	4.96	26.14	5.83	.173
	Neuroticism	20.02	4.54	20.94	4.92	18.67	3.56	.011
	Openness	30.29	4.09	30.51	3.97	29.98	4.28	.514

M = mean; SD= standard deviation.

Of all the life satisfaction scales, significant gender differences are found only in the school subscale: girls have significantly higher values. Indeed, researchers on subjective well-being say that, in general, girls show more satisfaction in school than boys do (Cross & Madson, 1997; Okun et al., 1990; Verkuyten & Thijs, 2002). One of the reasons is the specific behavioral reactions: for example, boys are more likely to stress their independence of others, whereas girls are more likely to emphasize their relatedness to others, boys are more concerned about their status among classmates, they have more conflict situations in school and tend to develop negative relations (Cross & Madson, 1997).

Regarding gender differences in self-regulation, girls show higher values for the following regulatory characteristics: Goal planning, Modeling of significant condition, Results evaluation. An analysis of the studies suggests that gender differences in self-regulation remain a rather controversial issue that needs to be studied. On the one hand, it is shown that in the preschool age and in primary

school girls outperform boys in certain features of self-regulation (Matthews, Ponitz & Morrison, 2009; Zimmerman & Martinez-Pons, 2009). On the other hand, in the older school age, these differences become minimal. In our previous study on the sample of senior schoolchildren, we did not observe significant differences in the components of self-regulation in boys and girls (Morosanova et al., 2016).

As for the personal characteristics, girls have significantly higher indicators of Agreeableness and Neuroticism.

6.1. Correlations

Correlation analysis of the basic life satisfaction scores is presented in Table 2. The data obtained demonstrate the interconnections between self-regulation and pupils' life satisfaction, with the largest number of significant correlations observed for the school satisfaction scale. Learning activity is leading at this age and the pupil's personality is in many respects assessed by the others through its prism, and similarly the self-esteem is formed also. The way in which the child organizes his educational activities, performs homework, interacts with peers, takes responsibility for his duties influences his subjective sense of satisfaction with his activities and himself.

Table 02. Correlations

	Measures	Life Satisfaction		
		Family	School	Self
Self-regulation	Goal planning	.300**	.351**	.206*
	Modeling of sign. conditions	.207*	.468**	.102
	Programming of actions	.188*	.304**	.115
	Results evaluation	.288**	.400**	.161*
	Flexibility	.078	.183*	.125
	Independence	.326**	.175*	.253**
	Responsibility	.271**	.375**	.330**
	General level	.334**	.424**	.340**
Big Five	Extraversion	.418**	.189	.287**
	Agreeableness	.438**	.350**	.273**
	Conscientiousness	.497**	.502**	.390**
	Neuroticism	-.161	-.250**	-.029
	Openness	.457**	.324**	.305**

*p<0.05; **p<0.01.

The relationship between regulation and the sense of well-being in the family also looks logical. Parents expect the child, by the end of his primary school education, to be more autonomous and self-reliant in the implementation of learning activities, encouraging the child's activity and initiative. This leads to a positive child assessment by the parents through his position of the subject of the learning process. As for the relationships of personality variables with life satisfaction scales, interesting is the fact that significant negative correlation of Neuroticism is found in our sample only with the school satisfaction scale. Apparently, it can be explained by the fact that school environment and learning situations are largely the cause of emotional instability and anxiety in children with a high level of neuroticism. Also, we didn't find in our sample a significant correlation between the Extraversion

variable and school satisfaction scale. Perhaps at this age sociability and social interaction at school do not play such an important role for life satisfaction, as it plays in the future, when communication becomes the basis for the adolescent's personality development.

6.2. Significant differences analysis

At the next stage, we conducted a comparative analysis of the regulatory features and personality characteristics of the extreme groups of students with different levels of School Life Satisfaction (Table 3).

Table 03. Comparison of the regulatory features and personality characteristics of students with high and low levels of School Life Satisfaction

Measures	Low School Life Satisfaction (N=39) M (SD)	High School Life Satisfaction (N=62) M (SD)	ANOVA-effects
Goal planning	3.92(1.47)	4.66 (1.11)	.001
Modeling of sign. conditions	3.62 (1.55)	4.89 (1.36)	.000
Programming of actions	3.75 (1.42)	4.40 (1.31)	.006
Results evaluation	3.38 (1.59)	4.38 (1.34)	.000
Flexibility	4.19 (1.52)	4.21 (1.46)	.921
Independence	4.13 (1.64)	4.58 (1.36)	.077
Responsibility	4.13 (1.45)	3.47 (1.49)	.000
General level of SR	26.00 (7.00)	30.78 (7.42)	.000
Extraversion	26.78 (4.95)	27.63 (4.33)	.354
Agreeableness	29.76 (4.73)	32.54 (3.65)	.001
Conscientiousness	24.05 (5.07)	28.86 (4.67)	.000
Neuroticism	20.98 (5.08)	19.42 (4.09)	.085
Openness	28.90 (4.49)	31.17 (3.58)	.005

M = mean; SD= standard deviation.

Students with high level of SLS demonstrate significantly higher indicators of regulatory processes of Goal planning, Modeling, Programming of actions and Results evaluation, as well as the Self-Regulation General level. These processes are associated with conscious goal setting, analyzing the external and internal conditions for achieving the goal, drawing up a program of actions and self-assessment of the activities results. That is, the students with a high SLS level are more successful in self-regulation of their learning activities. While students with low SLS level may experience difficulties in achieving the goal, programming their actions, analyzing the results of their learning activities.

With regard to personality characteristics, students with high SLS level have significantly higher rates of Agreeableness, Conscientiousness, and Openness. In primary school these qualities are certainly important and positively evaluated by others. Disciplined, responsible, inquisitive, sociable children, receiving from teachers a positive feedback and high assessment of their behavior, thereby feel themselves more satisfied. In the life of junior schoolchildren, school and educational activities play a great role. In this regard, an important aspect of life satisfaction in this period is the child's attitude

toward school life. The studies show that self-regulation is an indispensable factor of success in learning activities (Zimmerman & Schunk, 2012; Morosanova, Fomina & Bondarenko, 2015). Research results provide the basis to assume that if the imperfection of schoolchildren self-regulation is sustainable, persisting from year to year, it can create more and more serious obstacles to the effective implementation of the complicating learning activities and, as a consequence, be the cause of negative attitudes towards learning activity, low self-esteem and low life satisfaction.

The data obtained in our study demonstrate that pupils' self-regulation and their life satisfaction are related, and students with higher levels of school life satisfaction are more successful in regulating their learning activities: they are able to effectively analyze the characteristics of learning activities, taking into account the essential conditions for achieving the learning goals, to adjust their actions and evaluate the results. Such a high efficiency can be explained by the fact that at this age, the child's activity self-regulation is carried out largely under control of the parents and teachers who help the child to organize a conscious achieving the goals. By the end of the primary school, children develop important subject qualities characterizing specifics of their self-regulation: independence, responsibility, initiative. This allows for more effective coping with the new challenges of education activities, which in its turn positively affects the life satisfaction.

Analysis of the personality characteristics of participants with high and low levels of School Life Satisfaction showed that pupils with high level of SLS have significantly higher rates of the Agreeableness, Conscientiousness, Openness. These personal characteristics provide the basis for the child's well-being at school, because Agreeableness allows for realization of social motives and is the basis for a positive attitude of others, whereas Openness and Conscientiousness are positively related to the learning success, which also affects the positive attitude towards the student in school, that, taken together, provides for subjective well-being at school in children of the first stages of education. These personal characteristics, unlike Extraversion and Neuroticism, are less genetically determined and more dependent on social interaction (Bergeman et al., 1993). In addition, in our studies it was shown that Conscientiousness correlated highly with general level of conscious self-regulation (Morosanova, 2013). These data suggest a conceptual and instrumental proximity of these concepts.

The absence of significant links between School Life Satisfaction and the variables of Extraversion and Neuroticism in the comparative analysis of data obtained in our research (as opposed to other studies) can be explained by significant influence of the situational factors on the life satisfaction in junior schoolchildren. Researchers note that for short-term prediction of subjective well-being, personality traits are usually a weaker predictor than situational factors (DeNeve & Cooper, 1998). Indeed, one should always bear in mind the high dynamism of the school environment, the variety of situations and attitudes that primarily impose high demands on both the development of Conscientiousness and the child's ability for self-regulation of behavior in school and interaction with peers and teachers. The results of this study substantiate this provision.

7. Conclusion

Thus, the conducted research made it possible to identify significant links between self-regulation, personal characteristics and indices of life satisfaction of younger schoolchildren. The study displayed the

gender differences in manifestations of the school life satisfaction, self-regulation, and personal characteristics among the younger schoolchildren. A comparative analysis of the regulatory and personality characteristics of students with different levels of School Life Satisfaction showed that students with a high level of SLS demonstrate the higher development of regulatory processes, self-regulation in general, and such personal characteristics as Agreeableness, Conscientiousness, and Openness. The results obtained in this study suggest that various aspects of conscious self-regulation are an important factor in the subjective well-being of schoolchildren. Further research will be focused on the study of regulatory and intrapersonal mechanisms of sustainability of students' subjective well-being at their transition from primary to secondary school. The problem of gender differences in the manifestations of life satisfaction in schoolchildren of different ages also requires a more detailed consideration. The task of identifying regulatory predictors for life satisfaction in different spheres (family, friends, school, self-attitude) remains likewise actual.

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