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### Psychology of Personality: Real and Virtual Context

# SOCIAL-PSYCHOLOGICAL ADAPTATION OF ACADEMIC GIFTED ADOLESCENTS WITH VARIOUS DEGREES OF INTERNET ADDICTION

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### *Abstract*

The article is devoted to the study of the relationship between Internet addiction and social-psychological adaptation in academically gifted adolescents, as well gender differences in Internet addiction. The participants were 121 secondary school students (76 boys and 45 girls, 13-14 years old). The students were enrolled in advanced education on science and mathematics as a result of the entrance competition, and were characterized as academic gifted by their teachers. There were used the following methods: the Internet Addiction Test by K. Young and the Methodology of Social-Psychological Adaptation by K. Rogers & R. Diamond. The data obtained did not reveal any case of clearly formed or "veritable addiction" among the participants, but the Internet addiction indices varied greatly. At the same time, the gender differences were insignificant both for the Internet addiction and for social-psychological adaptation indices. The data of correlation analysis demonstrated the significant positive correlations between the Internet addiction indices and in most attributes of maladaptation and escapism. In the contrast, the significant negative correlations were between the Internet addiction indices and in most attributes of social-psychological adaptation, as well the integral adaptability scales, except for «acceptance of others». In a whole, higher Internet addiction corresponded to decline integral scales of social-psychological adaptability. The results of multivariate analysis of variance (MANOVA) confirmed the negative effect of strengthening of Internet addiction on social-psychological adaptation of academically gifted secondary school students, especially pronounced in the adolescents with the heightened level of Internet addiction, comparing to other their classmates.

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**Keywords:** Adolescents, social-psychological adaptation, gifted, internet addiction.



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## 1. Introduction

In the past few decades computer and Internet technologies have taken a huge place in the lives of people around the world. The active use of information technology is increasingly becoming required part of the daily life of all age groups, but especially of young people. At the same time, with the widespread use of computers and the Internet, new problems have arisen related to their excessive, unreasonable, and even pathological use, called Computer and Internet addiction (Babaeva & Voiskounsky, 2003; Ginige, 2017; Koo & Kwon, 2014). Although there are different, often contradictory, views on these problems, and sometimes cast doubt on their existence, they have long and seriously bothered many parents, teachers, psychologists and other specialists. Psychological studies of Internet addiction remain their relevance associated with the increasing role of information and computer technology in all areas of society, including education.

The empirical results with the participation of schoolchildren, on the one hand, indicate positive role of Internet activity in the development and realization of their potential and self-improvement (Swicord et al., 2013) but on the other hand, demonstrate the unfortunate social-psychological characteristics, as such as problems of self-esteem, emotional estrangement, social frustration, etc. in too keen users (Ginige, 2017; Koo & Kwon, 2014). Especially a lot of empirical research has been carried out in China and South Korea, in which the growth of Internet addiction is very high. As an example, a meta-analytical study allowed the authors to identify a number of risk factors that contribute to the development and maintenance of Internet addiction, as well as protective factors (Koo & Kwon, 2014). An important result was the conclusion about the effect of intrapersonal variables associated with Internet addiction, such as: "running away from oneself", "aggression", "depression", as well as problems of "self-identification", "self-control", "emotional regulation". Conclusions that the dependence on the Internet can arise because people, especially adolescents, can use it as a means of compensating for their intrapersonal problems associated with low self-esteem and / or identity are noteworthy (Sorokina, 2015). In general, a detailed comparison of numerous studies of Internet addiction led the authors to conclude that intensive study of psychosocial factors and especially intrapersonal variables is necessary in assessing individuals at high risk of developing addiction and developing intervention strategies.

The specific interest is in influence of Internet addiction on the social-psychological development of adolescents who display high abilities and giftedness in various types of activities (Babaeva & Voiskounsky, 2003; Kurnaz & Tepe, 2019; Sorokina, 2015). However, these aspects of the problem of Internet addiction remain insufficiently understood and need in further study.

## 2. Problem Statement

Researchers of almost all countries report increasing time of using the Internet by students for their academic and extracurricular activities. However, together with the many benefits come the risks and growing concern about the addictive quality of the Internet. The available concepts of Internet addiction remain controversial while we should not neglect the seriousness of individual cases and need of psychological help for problematic Internet users, especially children and adolescents and their families. Numerous studies are currently devoted to this problem. Nevertheless, little empirical data exists on the

interactions between gifted adolescents and Internet technology, as well on the influence Internet addiction on the social-psychological adaptation and well-being of gifted school students. Therefore, our study is devoted to this problem.

### **3. Research Questions**

Our study addressed the following questions:

- 3.1.** What are the relationships between Internet addiction and social-psychological adaptation in academic gifted adolescents?
- 3.2.** Does the degree of Internet addiction affect the characteristics of social-psychological adaptation in academic gifted adolescents and what is the impact?

### **4. Purpose of the Study**

The study aimed to examine whether the degree of Internet addiction influences on the various characteristics of social-psychological adaptation in academically gifted adolescents.

### **5. Research Methods**

#### **5.1. Participants**

121 secondary school students of grade VIII (13-14 years old) participated in the Study. The students were earlier enrolled in advanced education on science and mathematics as a result of the entrance competition. There were 76 boys and 45 girls with high intellectual abilities and academic interest in education.

#### **5.2. Methods**

The following methods were used:

- The Internet Addiction Test by K. Young. The modern full version of the questionnaire consists of 40 items in the Russian version (Voiskounsky et al., 2015). The respondent was asked to answer each question in accordance with the 5-point Likert Scale. Estimates for all points are summarized, determining the final value.
- The Methodology of Social-Psychological Adaptation by K. Rogers and R. Diamond in the Russian version (as cited in Osnitskiy, 2004). The method includes 101 statements about person, personal emotions, thoughts, habits, lifestyle, etc. 37 of them meet the criteria of personality adaptation, 37 – maladaptation, and 27 – neutral (partially include the "scale of lies"). The respondents must express their disagreement or agreement with each statement in accordance with a 7-point response from 0 to 6 to what extent the statement is truth for him. All statements are integrated in the following scales: "adaptation", "self-acceptance", "acceptance of others", "emotional comfort", "internality or internal control", "desire to dominate", and additionally "escapism".

- For statistical processing of the results parametric (Student's t-test) criteria of difference, Pierson correlation analysis and multivariate analysis of variance (MANOVA) were used.

## 6. Findings

According to results obtained, the mean of Internet addiction scores were 45.75; SD = 13.10; min = 22; max = 76 in the whole sample. There were no cases of clearly formed or "veritable addiction" (above 80) among the participants, but the Internet addiction scores varied greatly, and their distribution did not differ essentially from normal one. The comparison of the Internet addiction and social-psychological adaptation variables in the boys and girls with the Student's t-test did not find any statistically significant gender differences, in according to data in other countries (e.g. Ginige, 2017).

### 6.1. The relationship between Internet addiction and social-psychological adaptation in academic gifted adolescents

The data of correlation analysis demonstrate the significant positive correlations between the Internet addiction and maladaptation attributes and escapism, except for negative correlation with "desire to dominate" scale. In the contrast, the significant negative correlations were revealed between the Internet addiction and the attributes of social-psychological adaptation, as well the integral adaptability scales, except for positive correlations with "desire to dominate" scale and not significant correlation with "acceptance of others". In a whole, higher Internet addiction index corresponded to decline the partial and integral indices of social-psychological adaptabilities (see Table 01).

**Table 01.** Correlations between the Internet Addiction and Social-Psychological Adaptation

Social-Psychological Adaptation Scales	Pierson Correlation	p
Adaptation	-0.669	<0.001
Self-acceptance	-0.577	<0.001
Acceptance of others	-0.116	n.s.
Emotional comfort	-0.489	<0.001
Internality	n.s.	<0.001
Desire to dominate	0.525	<0.001
Escapism	0.594	<0.001

### 6.2. Influence of Internet addiction on social-psychological adaptation of academic gifted adolescents

To examine the influence of the level of Internet addiction on social-psychological adaptation in academically gifted students the multivariate analysis of variance (MANOVA) was conducted. There were divided four groups (approximately equal number) of students, differing on levels of their Internet addiction: 1. low (22-37 points); 2. lower average (38-41 points); 3. average (42-53 points); 4. heightened (54-76 points). Groups included 28 to 34 students and its means differed significantly each of other. The levels of Internet addiction were used as independent variables, and the integral social-psychological adaptation scales were used as dependent ones.

The results of multivariate analysis of variance (MANOVA) confirmed the negative effect of strengthening of Internet addiction on social-psychological adaptation of academically gifted secondary

school students (see Table 02). A posteriori multiple comparisons (Bonferroni test) showed that maximal and significant differences in the social-psychological adaptation scales were observed between the group of heightened Internet addiction and all three groups with its different but moderate (normal) levels. The differences in the social-psychological adaptation scales among latter three groups were often less and insignificant ones. Although among the students the so-called problematic "veritable addiction" was not discovered, the students with heightened levels of Internet addiction characterized substantially heightened scales "desire to dominate" and "escapism" and reduced scales "self-acceptance", "emotional comfort" "internality" and integral social-psychological adaptability.

**Table 02.** Means, Standard Deviations (in brackets), and MANOVA results for the levels of Internet addiction of adolescents

Social-Psychological Adaptation	The levels of Internet addiction				F	p
	Low	Lower average	Average	Heightened		
Adaptability	61.9 (10.6)	56.1 (11.2)	55.2 (13.2)	35.4 (8.7)	27.13	.000
Self-acceptance	55.1 (10.6)	51.6 (11.4)	48.4 (12.5)	35.3 (8.6)	15.65	.000
Acceptance of others	57.0 (9,4)	59.3 (7,8)	53.5 (10,9)	54.5 (10,0)	1.74	.165
Emotional comfort	55.0 (9.8)	49.5 (10.8)	52.3 (6.1)	37.7 (5.0)	15.75	.000
Internality	47.5 (12.2)	44.0 (12.4)	41.3 (12.4)	26.5 (11.2)	14.19	.000
Desire to dominate	43.6 (11,5)	48.0 (9,3)	50.6 (7,1)	58.3 (6,1)	12,64	.000
Escapism	15.4 (2,3)	15.4 (2,2)	17.5 (4,8)	23.1 (3,5)	27.07	.000

## 7. Conclusion

Many psychologists propose that adolescence itself is a risk factor of Internet addiction because of unlimited high curiosity and a drive for adventures with risk taking, and gifted adolescents are not less vulnerable to the addictive quality of the Internet than their other peers. Some gifted adolescents possess emotional excitability, experiencing tremendous academic pressure from the environment in real life, lacking emotional and psychological support, and therefore can have the high risk to find temporary solace in stress-free virtual reality and escape problems (Ginige, 2017; Koo & Kwon, 2014; Kurnaz & Tepe, 2019).

Our data confirm that gifted adolescents may also be overly dependent on Internet addiction even when they are successful at school. However, individual cases of noticeably heightened Internet addiction should not be ignored, because it may be a sign of psychosocial troubles. The results of our study, according to other empirical data (e.g., Babaeva & Voiskounsky, 2003; Koo & Kwon, 2014), also confirm the negative impact of heightened Internet addiction on the social-psychological adaptation characteristics in academic gifted secondary school students. Nonetheless, it is highly likely, that it can be bi-directional influence, that is to say, that social-psychological adaptation problems as such as dissatisfaction with oneself, baseless desire to dominate, emotional discomfort intensify desire for escapism – withdrawal into the virtual world. This topic requires the further researches with participation of expanded and diverse sample and employment not only quantitative but also qualitative analyses.

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