

Adjustment of Computer Games in Teenagers

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Keywords Game, Computer Game, Addiction, Addiction to Computer Games, Adolescence.

Abstract This article investigates the dimensions of addiction to computer games across various age groups, examining the dynamics of dependency, success motivation, and family relationship characteristics. While previous studies have focused on age groups as distinct units in gaming addiction, this research delves deeper into the interplay between these elements, unexplored in prior work. Drawing from comprehensive personality research, comparative analyses, and psychodiagnostic methods, the study employs various tests and methodologies to scrutinize adolescents' attitudes and addiction levels. Findings reveal significant differences in addiction patterns and family dynamics between adolescent boys and girls. The analysis underscores the pivotal role of environmental factors in shaping gaming habits. Additionally, it investigates the motivational landscape among adolescents, highlighting various motivational constructs prevalent in gaming-dependent individuals. This comprehensive exploration sheds light on the nuanced aspects of gaming addiction and its multifaceted influences on adolescent behavior and family relationships.

1 INTRODUCTION

Worldwide research has done much work in studying the psychological characteristics of addiction to computer games. Each age group has been studied as a distinct entity, particularly in the context of dependence on computer games. However, their dynamics, motivation for success, and characteristics of family relationships (positive environment, anxiety, conflict, lack, hostility) have not been fully explored. Hence, our study finds its relevance in the exploration of the dynamics of addiction to computer games, motivation to succeed, and characteristics of family relationships amongst subjects of different ages (Rakhimova and Sayitova, 2020);(Rakhimova, 2014).

Firstly, it's worth noting that the issue of "human-machine" relations is, in the words of N. Winner, "one of the most significant problems" (Pushkin and Ursul, 1989);(Mukhamedova and Rakhimova, 2020). Researchers have long been captivated by the advent of modern computers. In particular, the well-known Russian philosopher N.A. Berdyaev published a major article in 1933 in his journal "Put", entitled

"Man and Machine (Sociology and Metaphysics of Technology)" (Berdyaev, 1989); (Igovna, 2016). Experts note that this article holds special value within the works of N.A. Berdyaev, which have been reprinted six times in collections and translated into foreign languages (Bodaleva et al. 2003); (Rakhimova and Mukhamedova, 2020).

2 METHODS

The research utilises a comprehensive approach to personality research, comparative analysis, discussions concerning students' attitudes towards computer games, and psychodiagnostic methods. We have employed AV Grishina's "Questionnaire to Determine the Level of Interest of Young Teenagers in Computer Games"; the "Motivation to Strive for Success" test and the "Constructive Motivation" methodology (R. Burns); the "Socio-psychological Adaptation" method (adapted version by TV Snegireva) and mathematical-statistical methods in processing empirical results (Student's t-test, K. Pearson's method for calculating the correlation coefficient).

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3 RESULTS AND DISCUSSION

A correlation analysis of the empirical data obtained from the Computer Game Addiction Survey was conducted, following the interviews with this category of adolescents. This analysis focused on the performance of adolescents (boys and girls) who exhibited a high addiction to computer games (Rakhimova and Mukhamedova, 2020).

The analysis of correlation indicators revealed a significant difference in the characteristics of adolescent boys' addiction to computer games in comparison to younger school students. As per their survey results, two significant correlations were noted. Both relationships primarily concerned their association with gaming. Firstly, adolescents were evaluated on their determination to play computer

games regularly, their aspiration to achieve high results, and their immersion in the games to an extent that it blurred the passing of time ($r = 0.371$ and $p < 0.05$).

Adolescents' preference to interact with characters in computer games correlated with an increase in parental restrictions on playing computer games ($r = 0.378$ and $p < 0.05$). It appears that the surrounding environment can play a significant role in a teenager's addiction to computer games (Table 1).

In the table below, the results for adolescent girls differ markedly from those of the boys. Some of their characteristics are similar to those of younger school children addicted to computer games. The rise in emotional attitudes towards computer games in adolescent girls resulted in a lack of self-control ($r = 0.378$ and $p < 0.05$).

Table 1: Characteristics of adolescent boys with a high level of dependence on computer games (n = 95).

Scales	Emotional attitude towards CG (5)	Self-monitoring in the CG	Target orientation in CG	Parent's attitude towards child's CG	Preference to communicate with CG heroes rather than real communication
Emotional attitude towards CG	1	-0,117	-0,062	0,062	0,201
Self-control in the field		1	-0,078	-0,143	0,181
Target orientation in CG			1	0,371*	-0,204
The parent's attitude towards the child's CG				1	0,378*
Prefer to communicate with CG heroes rather than real communication					1

* $p < 0,05$

In turn, the escalation of emotional relationships with computer games in adolescent girls appears to also influence changes in their parents' attitudes towards these games. Adolescent girls also tend to hide their enthusiasm for computer games from their parents ($r = -0.683$ and $p < 0.05$).

When girls develop self-control skills, they exhibit a willingness to set limitations for themselves with regards to playing computer games ($r = -0.606$ and $p < 0.05$), and are more open with their parents about the impact of these games ($r = 0.730$ and $p < 0.05$) (Table 2).

If adolescent girls' inclination to play computer games is curtailed by their parents, they consequently prefer real-world communication over interaction

with characters in computer games ($r = -0.759$ and $p < 0.05$).

According to most test participants, certain aspects of human life and activities are simulated during the gameplay. Through the game, they learn clearly established rules and norms, and have the opportunity to comprehend and navigate social reality. Computer games portray repeating moving relationships. Communication patterns within the games allow participants to grasp some aspects of communication. Using a computer game, they independently determine the type of interaction with their chosen character. Mastering norms and habits of social relationships helps them begin to communicate with their peers.

According to the subjects, gaming enhances cognitive activity, attention, memory, and the development of thinking. However, it doesn't have a beneficial effect on emotional intelligence. Success in the game

accelerates the development of motivational skills. Loss, on the other hand, engenders feelings of resentment and negative attitudes, not only towards oneself but also towards one's peers.

Table 2: Characteristics of adolescents with a high level of dependence on computer games (girls) (n = 63).

Scales	Emotional attitude to CG (5)	Self-monitoring in the CG	Target orientation in CG	The parent's attitude towards the child's CG	Prefer to communicate with CG heroes rather than real communication
Emotional attitude towards CG	1	-0,712*	0,001	-0,683*	0,518
Self-control in the field		1	-0,606*	0,730*	-0,448
Target orientation in CG			1	-0,224	-0,096
The parent's attitude towards the child's CG				1	-0,759*
Prefer to communicate with CG heroes rather than real communication					1

* $p < 0,05$

Given that human behaviour is rooted in motivational factors, it is fitting to also analyse the characteristics of the motivational field in adolescents who are addicted to computer games here.

The motivational field of the adolescent subjects was determined by studying the motivational constructivity of the adolescents as well, and preliminary conclusions about the primary type of motivation were drawn.

Procedure: The experiment was attended by boys and girls aged 11-12 years. In group A, there were

subjects with a pronounced dependence on computer games (26 individuals), and in group B, there were participants with average and less pronounced involvement in computer games (32 individuals), totalling 58 teenagers.

A quantitative analysis was performed based on the calculation of scores. The processing of the results is provided in the appendix. A qualitative analysis to determine the constructiveness of motivation in a group of 26 subjects is presented in Table 3.

Table 3: Qualitative analysis to determine the constructiveness of motivation.

Strategies	Constructive and behavioral approach to motivation			
	Constructive unity (cooperation)	Destructive unit (cooperation)	Reconstruction unit (cooperation)	Instructional unit (cooperation)
A High rates of addiction to computer games	42%	26%	20%	12%

The table shows that the constructive unit of motivation is specific to 42% of the subjects, in which the motivation for success and attitude predominates. The balance of internal and external interactions underpins the balance of goals and relationships in both the internal and external plans of the adolescent who is addicted to computer games. Ideally, they strive for collaborative creativity in all significant activities and in resolving disagreements based on internationalism and extroversion. The adolescent's passion (eagerness for the goal and readiness to sacrifice and forfeit themselves to achieve that goal) has significant public relevance. However, when they don't pay enough attention to themselves and are not demanded by the public, they become a dispassionate good-natured individual, dreamy, a fan of public events, a constant activist of communities. Although the extreme tension of spiritual and physical forces is displayed in the choleric temperament on the parameter of personal sensitivity, it appears as a typical personal state on the constructiveness parameter in terms of its activity - sanguine.

The destructive unit of motivation belongs to 26% of subjects. The primary way and motive to enter into a relationship is "no - no". That is, the mutual denial of internal and external is a negative motive for rejection, determining the stability of the adolescent, the rhythm of slow development. In general, this destructive relationship is the unity of motivation and motivation for success in reality, expressed in two different forms of complementary "adaptation" (I Gorevna, 2016).

The first is the inner world, i.e., the teenager who is addicted to computer games, to oppress others, to dominate others and himself based on the mutual rejection of both his own and others' inner worlds. The second form is the adaptation of the adolescent to the moral views of others as well as to his personal habits ensuring the stability of his lifestyle. The issue of the interaction of internal and external is resolved voluntarily and willingly, and sometimes unpredictably.

Reconstructive motivation is typical for 20% of subjects. The primary way (motive) to enter into a relationship is "Yes-No", i.e., the desire to express the importance and value of the individual is the dominance of the reconstructive unity of motivation and motivation to succeed when it's based on the command of the mind, not the heart. The result of this reconstructive motivation is usually manifested in the attempt to "avoid" complex situations in the

emergence of sensitive issues related to the re-entry into internal and external interactions. Spiritual activity aimed at working on oneself, strong thoughts aimed at improving one's self-efficacy, reflects the adolescent as an internal but introverted individual, i.e., appealing to his inner world. In adolescents with a high level of addiction to computer games, self-motivation is more important than motivation to succeed; the reciprocal ratio prevails over the goal - it is more important to understand oneself or some abstract truth, and only then is the external world taken into account. This is the reason for the general focus on the types of activities (scientist, writer, composer, sage, leftist) that take into account the fact that work is performed in a secluded place.

The instructional unit of motivation belongs to 12% of subjects. The primary way (motive) to enter into a relationship is the "no-yes" motive, which implies the denial of the inside to the outside. This form of motivation is expressed not only in oneself but also in relation to others: everyone must follow the externally defined ideas, rules - norms, goals, etc., as a guide. The instructive unity of attitude motivation and success motivation is observed in the pursuit of "competition". It is based on the fact that a teenager addicted to computer games educates himself in the external environment and recognises his importance and value. But at the same time, the adolescent's goals and attitudes are disproportionate: according to his external perceptions, the goal, the results achieved, prevail, which may depend not only on the conscious attitude but also on the psychological state of the situation. The psychological state is understood as an instrumental value of a person, not a spiritual one.

4 CONCLUSION

Thus, in contrast to early school age, the dependence on computer games in adolescence manifests in relation to the gaming process. The gaming environment and the ability to organise it serve as a more convenient tool for meeting leadership needs in terms of communication and interaction with their peers. In games that reflect the social relationships of adults, adolescents have the opportunity to master behaviour and thus "join" the world of adult relationships. This is why when a child prefers to play in a team, they assume a certain position with its help. Access to computer technology is only possible if certain financial conditions are met. Children also enjoy playing games whilst interacting with the group. While teenage girls prefer games related to

gender characteristics, teenage boys also prefer to play games in which masculine characters are distinctly expressed.

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