

**PRRAEPGDA 2020**  
**Personal and Regulatory Resources in Achieving Educational and Professional Goals in the Digital Age**

**FEATURES OF PERSONAL RESOURCES OF VIRTUAL TEAM PLAYERS**

Irina Viktorovna Mikhailova (a)\*, Maksim Sergeevich Silantiev (b)

\*Corresponding author

(a) Ulyanovsk State University, 42 Leo Tostoy Street, Ulyanovsk, Russian Federation, 44kd11@gmail.com

(b) TC Aviastar 13 Sozidatelei, Ulyanovsk, Russian Federation, 4mess@mail.ru

***Abstract***

Many people have various difficulties in regulating their behaviour and in establishing social contacts. It leads to an increase in the attractiveness of virtual communication. This article discusses the resource formats of personality in the context of digitalization. We analyse the strategies for coping behaviour of men and women, the vector of their interpersonal communication, the level of adaptation and frustration, and conditions for choosing a person to leave a real social group in communication to prefer virtual space. We use diagnostic and static methods that reveal the differences in the characteristics of personal resources and coping strategies. Our hypothesis about the presence of differences in coping behaviour strategies, the severity of indicators of socio-psychological adaptation and social anxiety of participants in real and virtual groups was confirmed. It was found that women are inclined to overcome negative experiences by subjectively reducing their significance and the degree of emotional involvement; men are less likely to distance themselves from experiences and problems through internal psychological work. We were found differences between of indicators of socio-psychological adaptation among participants in a virtual and a real group. Participants in a virtual group are less adapted to social life, are more likely to experience emotional discomfort and more difficult to accept someone else's point of view, but they don't have social frustration. We were able to conclude that there are certain psychological difficulties in the data of the subjects, which are either compensated or replaced by participation in a virtual group.

2357-1330 © 2020 Published by European Publisher.

**Keywords:** Virtual environment; coping strategies; personal resources.



## 1. Introduction

Nowadays, quite often an individual is faced with various difficulties both in regulating his behavior and in establishing social contacts, and the more such difficulties, the more attractive for a person is communication in a virtual space.

The role of digitalization in the development and socialization of personality is considered by many authors and they investigate on different aspects (Sedunova, 2018b). So, some authors consider the virtual environment as a platform that currently displaces the real communication of subjects of activity, creating a certain type of attributes of reality, which is usually seem more attractive (Sidorova, 2020). A number of authors consider the virtual environment and social networks as a factor in cyberbullying (Kiriukhina, 2019; Mikhaylovsky et al., 2019), as a factor in non-normative social activity in cyberspace and as a factor in the formation of destructive forms of behavior (Chatzakou et al., 2017; John et al., 2018), including suicidogenic ones (Igumnov et al., 2018). Despite the lack of personal contacts, geographical remoteness, and often the difference in age, social status, professional interests, etc., virtual reality is able to unite participants into groups. It is difficult to overestimate the prospects for studying the laws of the formation and existence of such groups (Mikhailova et al, 2019). The classical phenomena of social groups sometimes coincide with the real ones, and sometimes they have their own specifics right up to the opposite results. For example, our pilot researches show positive correlations between the determining factors of leadership in real groups (Mikhailova et al., 2018; Yemelyanenkova et al., 2017) and virtual groups. Some studies demonstrate age-related features of interaction in virtual space (Puchkova et al., 2017).

The mechanisms of personality formation and change in the digitalization era are currently being actively studied (Kovess-Masfety et al., 2016; Sedunova, 2019). Attempts are being made to identify the mechanisms of transfer of a person's social activity from the real environment to the virtual one (Zagranichny, 2019), the cognitive prerequisites for interaction in the information environment are analyzed (Sedunova, 2018a). There are studies on the different effects of the sociocultural information environment on men and women (Emelyanenkova & Piyanina, 2019). The virtual environment by itself can be a valuable way of exploring various aspects even in such a sensitive sphere as ethnic attitude (Menshikova et al., 2018).

That is, modern authors try to study the information space from different angles, we, in turn, decided to consider the resource formats of the individual in the context of digitalization.

## 2. Problem Statement

In psychologists researches we have not found for sufficient knowledge of the psychological characteristics of participants in virtual groups for our investigations. To determine these vectors, we conducted a series of studies.

## 3. Research Questions

After pilot investigations, we made several assumptions and focused on the following statements. We suggested that people who spend most of their time in computer games are just as adaptable to society

as people who prefer to chat offline. Then we decided to find out - maybe some members of the virtual group use certain protective mechanisms.

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

Based on the foregoing, we set the following tasks: to study the socio-psychological adaptation and the level of social frustration of the participants in the game virtual group. And then we planned determine the psychological defence mechanisms of the participants in the game virtual group.

#### **5. Research Methods**

To achieve the goal of the work, an empirical study was developed and conducted. The hypothesis is the assumption that there are differences in coping behavior strategies. We supposed there is a statistically significant difference the level of indicators of social-psychological adaptation and social frustrating between participants in real and virtual groups.

There are 150 people aged 17 to 29 years participated in the study. The study was conducted at the bases of the Federal State Budget Educational Institution of Higher Education “Ulyanovsk State University”; P. A. Stolypin, FSBEI HE “Ulyanovsk Institute of Civil Aviation named after the Chief Marshal of Aviation B. P. Bugaev”. This study compared two groups: the virtual teams that constantly and jointly plays the games (“Tom Clancy's Rainbow Six Siege” and “World of Tanks”) and the students who do not play multiplayer computer games.

As a methodological toolkit, the following methods were selected: “The Rogers-Diamond methodology” in the adaptation of Osnitsky (2004), “The diagnostics of the social frustration level” invented by Wasserman et al. (2009) and Boyko (1996) and “Ways of Coping Checklist” (Folkman et al., 1986) adapted to Russian sample by Wasserman et al. (2009). We use the Mann - Whitney U test to substantiate conclusions using mathematical statistics.

#### **6. Findings**

While analyzing the social-psychological adaptation of the participants in the real and virtual groups using “The Rogers-Diamond methodology”, significant statistical differences ( $p \leq 0.01$ ) on the scales of “Adaptation”, “Acceptance of others”, “Emotional comfort” and significant statistical differences ( $p \leq 0.05$ ) on the scale of “Internality”.

The level of the “Adaptation” scale of the participants in the virtual social group are lower than in the real group. This could indicate that the participants of the virtual game group are less adapting to social life and the requirements of objective reality.

The level of “Emotional comfort” scale of the participants of the virtual group are much lower than of the representatives of the real group. That gives us reason to believe that the members of the virtual group are more unpredictable, emotionally impulsive than the participants who prefer to spend most of their time in the real group.

The level of “Acceptance of others” scale is lower in the virtual group than the indicator in the real group. That is, the members in the virtual game group have a certain intolerance towards other participants, which they immediately express in an impulsive and often aggressive form.

We also obtained data that we planning to be rechecked in the future jobs - on the “Internality” scale, the participants of a virtual game group have lower than the participants of a real group. It could mean members of a virtual group tend to shift responsibility for events to external factors or to other people. That is, according to our conclusions, they occupy a more infantile position than members of a real group do.

When studying the social frustration of the participants in a real and virtual game group using the “The diagnostics of the social frustration level” method, we did not reveal any significant differences between the participants of the two groups. A low level of frustration of the subjects was revealed, which suggests that the participants of both groups are satisfied with the social roles they occupy in society: some are satisfied with the fact that they spend most of their time in communication, interaction, in virtual space, others surrounded by real people and in personal communication. In this case, it is difficult to give any assessment of this fact, since it indicates that no group sees any reason to change something in their daily lives, no matter how close the people around them want it.

When studying coping mechanisms, ways of overcoming difficulties by participants in real and virtual groups using the “Ways of Coping Checklist“, we found the differences on the scales “Seeking social support” ( $p \leq 0.01$ ) and “Escape-Avoidance”, and the difference ( $p \leq 0.05$ ) on a scale of “Planning”.

The results of participants in a virtual game group on a scale of “Seeking social support” is higher than that of participants in a real group. The data obtained indicate that the members of the virtual group are satisfied, and they are not frustrated the situation and the circumstances in which they are located. But they more often want to get approval from relatives, significant people for them, and more often ask for social support, unlike members of a real group. Apparently, members of a real group receive approval and support in direct communication, but in virtual communication, this support is harder to get.

According to the results of our study, the subjects of the virtual game group have an indicator on the “Escape-Avoidance” scale that is higher than the indicators of the participants in the real group. If we compare these results with the results on the “Internality” scale of the “The Rogers-Diamond methodology” methodology, we can conclude that the participants in the virtual group are really inclined to move away from solving problematic or difficult situations, preferring to shift the responsibility for resolving it to someone another entity or circumstances. This conclusion is consistent with the data obtained on the scale of “Planful Problem Solving” – the members of a virtual group are worse at planning for solving any difficulties in life.

We also looked at the virtual group members for differences in the coping mechanisms in men and women. Differences were identified ( $p \leq 0.01$ ) on the scales: “Distancing”, “Self-Controlling”, “Accepting Responsibility” and “Escape-Avoidance”.

Women participants in a virtual game group are more likely than men to overcome the negative experiences associated with difficulties by subjectively reducing their significance and the degree of emotional involvement in them. As a rule women use ways of internal work to relieve tension, for

example, humor, distancing, devaluation or switching attention. Men are less likely to distance themselves from experiences and problems through internal psychological work.

On the “Self-Controlling” scale, the average score is higher in the group of men participating in the virtual game group. These results indicate that men, to a largely extent than women, can purposefully restrain emotions, minimizing the influence of feelings in the perception of the situation and the choice of a strategy for behavior.

On the scale of “Accepting Responsibility”, the average score is also higher in the group of men, which suggests that men are more likely than women to understand the relationship between their actions and their consequences and take on partial responsibility for the situation. However, men focus on their mistakes, especially in the game situation, and not on the efforts to get out of the situation, and often they do not have a clear plan of action.

The indicators of female participants of the virtual game group on the scale “Escape-Avoidance” are higher than in the male sample. The data obtained indicate that women, more than men, can quickly reduce emotional stress in a problem situation using avoiding reaction. Women players more often than men players prefer to move away from active actions to solve a problem, fantasize, are distracted. Since this coping strategy is non-adaptive, often women cannot solve their problems using it.

## 7. Conclusion

Thus, as part of an empirical study, it was found that there really are differences in coping behavior strategies between men and women who are members of a virtual group. Women are more likely to distance themselves and avoid complex and difficult situations in virtual interaction, while men are characterized by self-control and acceptance of responsibility. In addition, differences were found in the severity of indicators of Social-psychological adaptation among participants in a virtual and a real groups. Participants in a virtual group are less adapted to social life, are feel more emotional discomfort and more difficult to accept other people and other points of view, but they are not socially frustrated. It was also revealed that the members of the virtual group are looking for social support, but at the same time distance themselves from other people, which is potentially to lead to internal conflict.

## Acknowledgments

The study was financially supported the Russian Foundation for Basic Research, project 18-413-730015 \ 19 “Cognitive attributes of group phenomena of the information environment in the context of socio-cultural challenges in the Ulyanovsk Region”.

## References

- Boyko, V. V. (1996). *Ėnergiâ emoŝiŝ v obshchenii: vzgliad na sebâ i na drugikh [Energy of emotions in communication: a look at yourself and others]*. Informational-publishing house "Filin".
- Chatzakou, D., Kourtellis, N., Blackburn, J., De Cristofaro, E., Stringhini, G., & Vakali, A. (2017). Mean birds. *Proceedings of the 2017 ACM on Web Science Conference - WebSci'17*, 13-22. <https://doi.org/10.1145/3091478.3091487>

- Emelyanenkova, A., & Piyanina, K. (2019). Gender stereotypes as a form of representation of social reality *Psychology of Cognitive Processes*, 8, 38-44. <https://www.elibrary.ru/item.asp?id=42374396>
- Folkman, S., Lazarus, R. S., Dunkel-Schetter, C., DeLongis, A., & Gruen, R. J. (1986). Dynamics of a stressful encounter: Cognitive appraisal, coping, and encounter outcomes. *Journal of Personality and Social Psychology*, 50(5), 992–1003. <https://doi.org/10.1037/0022-3514.50.5.992>
- Igumnov, S., Zaretsky, V., & Shamarova, E. (2018). The virtual environment and social network as influence factor on the auto-destructive behavior of adolescents and young people *Mental Health of Children and Adolescent*, 18(3), 116-128. <https://www.elibrary.ru/item.asp?id=36272121>
- John, A., Glendenning, A. C., Marchant, A., Montgomery, P., Stewart, A., Wood, S., Lloid, K., & Hawton, K. (2018). Self-harm, suicidal behaviours, and cyberbullying in children and young people: systematic review. *Journal of Medical Internet Research*, 20(4), e129. <https://doi.org/10.2196/jmir.9044>
- Kiriukhina, D. V. (2019). Cyberbullying among young users of social networks. *Journal of Modern Foreign Psychology*, 8(3), 53–59. <https://doi.org/10.17759/jmfp.2019080306>
- Kovess-Masfety, V., Keyes, K., Hamilton, A., Hanson, G., Bitfoi, A., Golitz, D., Koç, C., Kuijpers, R., Lesinskiene, S., Mihova, Z., Otten, R., Fermanian, C., & Pez, O. (2016). Is time spent playing video games associated with mental health, cognitive and social skills in young children? *Social Psychiatry and Psychiatric Epidemiology*, 51(3), 349-357. <https://doi.org/10.1007/s00127-016-1179-6>
- Menshikova, G. Y., Saveleva, O. A., & Zinchenko, Y. P. (2018). The study of ethnic attitudes during interactions with avatars in virtual environments. *Psychology in Russia: State of the Art*, 11(1), 20–31. <https://doi.org/10.11621/pir.2018.0102>
- Mikhailova, I. V., Orlova, L. V., Erofeeva, M. A., Stanovova, L. A., Khudyakova, T. L., Fomina, E. V., & Baranova V. A. (2018). Students-leaders and students-outsiders: cognitive style and personal constructs of students with different sociometric status. *Modern Journal of Language Teaching Methods*, 8(9), 152-161. <http://mjltm.org/article-1-232-en.html>
- Mikhailova, I. V., Sedunova, A. S., Emelianenkova, A. V., & Silantev, M. S. (2019). *Kognitivnye atributy gruppovykh fenomenov informatsionnoi sredy* [Cognitive Attributes of Group Phenomena in the Information Environment]. Ulyanovsk State University. <https://www.elibrary.ru/item.asp?id=42574483>
- Puchkova, E. B., Sukhovershina, Y. V., & Temnova, L. V. (2017). A study of Generation Z's involvement in virtual reality. *Psychology in Russia: State of the Art*, 10(4), 134–143. <https://doi.org/10.11621/pir.2017.0412>
- Osnitsky, A. K. (2004). Opredelenie kharakteristik sotsial'noi adaptatsii [Defining characteristics of social adaptation]. *Psikhologiya i shkola* [Psychology and school], (1), 43-56.
- Sedunova, A. (2018a). Cognitive prerequisites for interaction in the information environment among university students. *Society: Sociology, Psychology, Pedagogy*, 9, 63-66. <https://doi.org/10.24158/spp.2018.9.12>
- Sedunova, A. (2018b, November 01-02). Fenomen "informatsionnaya sreda" v sovremennoy nauke [The phenomenon of "information environment" in modern science]. *Chelovek, kul'tura, obrazovanie sbornik trudov uchastnikov XII Vserossiyskoj nauchno-prakticheskoy konferentsii* [Human, Culture, Education. Proceedings of Participants of the XII Russian Scientific-Practical Conference '18], 138-143. from <https://www.elibrary.ru/item.asp?id=36396339>
- Sedunova, A. (2019). Self-identification and representations of information environment in university students. *Society: Sociology, Psychology, Pedagogy*, 11, 116-120. <https://doi.org/10.24158/spp.2019.11.19>
- Sidorova, M. V. (2020). Current problems of social pedagogy: virtual environment of communication. *Educational Psychology in Polycultural Space*, 49(1), 90–98. <https://doi.org/10.24888/2073-8439-2019-49-1-90-98>
- Wasserman, L. I., Iovlev, B. V., Isaeva, E. R., Trifonova, E. A., Shchelkova, O. J., Novozhilova, M. J., & Vuks, A. J. (2009). *Metodika dlya psikhologicheskoy diagnostiki sposobov sovladaniya so stressovymi i problemnymi dlya lichnosti situatsiyami* [Methodology for the psychological

*diagnostics of coping with stressful and problematic situations for a person*]. The St. Petersburg Bekhterev Psychoneurological Research Institute. <https://docplayer.ru/70289181-Metodika-dlya-psihologicheskoy-dagnostiki-sposobov-sovladaniya-so-stressovymi-i-problemnymi-dlya-lichnosti-situaciyami.html>

- Yemelyanenkova, A. V., Gagarina, M. A., Aygumova, Z. I., Kerimova, I. A., & Deberdeeva, N. A. (2017). Motivational particularities among the members of successful and unsuccessful teams in local organizations. *International Journal of Advanced Biotechnology and Research*, 8(2), 667-673. <https://drive.google.com/file/d/0B8lgDBwl33UqVUxid1VCVndObIE/view>
- Zagranichny, A. (2019). The aspects of the social involvement of the youth in virtual and real environments *Society: Sociology, Psychology, Pedagogy*, 4. <https://doi.org/10.24158/spp.2019.4.16>