

ADOLESCENTS' ADDICTION TO ONLINE VIDEO GAMES: IDENTIFYING THE RISK

Mr. VIJAYARAJ. M¹ Dr. RAJESH. R²

¹Research Scholar, Department of Visual Communication, Faculty of Science and Humanities, SRM Institute of Science and Technology, Kattankulathur, Tamilnadu, India.
vm3913@srmist.edu.in

²Associate Professor, Department of Visual Communication, Faculty of Science and Humanities, SRM Institute of Science and Technology, Kattankulathur, Tamilnadu, India.
rajeshr@srmist.edu.in

Abstract

In the new era of technology, online gaming is very popular among children because it challenges the players, which excites them and leads to addiction. Online gaming has many drawbacks. Playing online games leads to serious gaming addiction which is considered as gaming disorder. Hence, playing online games without restrictions and self-limitations leads many players to become addicted and eventually diagnosed with gaming disorder. The "National Child Safety Council" has issued a report that especially for children, there are defects related to mental and physical stress. In this study a questionnaire was distributed through Snowball sampling technique and collected the data from 145 samples of school children (aged 13-17) from Chennai. Measures were compulsive Internet use volume, weekly hours of online gaming, and psychological variables. Although these gamers report problems with addiction, relationships with poorer psychological and physical health issues are less evident. Also, conclusions can be drawn on physical effects on students. The research is carried out using a quantitative survey method to identify a small group of addicted online gamers. Supports efforts to develop and validate questionnaire scales aimed at measuring online video game phenomenology. The main objective of the study was to investigate the effects of 'addiction and related consequence' on online video game play. Also, to find the mental and physical health issues occurred because of the continuous video game play among the school students.

Keywords: Online games, Addiction, psychological and physical health, Gaming disorder, Phenomenology

Introduction

Millions of computers are connected by a global network called the Internet. More than 100 nations are connected to exchange information, news, and ideas. Internet World Stats estimates that there were 137,000,000 Internet users in India as of June 30, 2012. This amounts to 11.4% of internet users in India. The Internet is decentralised by design, in contrast to online services, which are centralised. A host is a single Internet computer, and they are all independent. Its operators are free to decide which local services to make available to the entire Internet community as well as which Internet services to use themselves. It's amazing how well this

anarchy by design works. The Internet can be accessed in a number of ways. Access to some Internet services is provided by the majority of online services. You can also sign up with a for-profit Internet Service Provider to gain access (ISP).

Internet and India

The general Internet usage environment in a nation affects the adoption and use of any advanced applications, such as online gaming. It is crucial to map the current state of the Internet ecosystem in India in order to accurately understand the likely growth path for online gaming. The size of the user base overall, user income levels, and trends in the adoption of other applications are some of the crucial variables that must be understood.

Internet growth in India

India is shown in the report to be the second most populous country in the world and the seventh largest overall. In terms of PPP, it has the fourth-largest economy in the world (purchasing power parity). In terms of monthly telecom subscriber growth, India currently leads the world and ranks second after China in terms of subscriber base. India's latent strength has been unleashed, elevating it to the forefront of the rapidly expanding Asia-Pacific region as a result of a number of ambitious economic reforms aimed at deregulating the economy and encouraging foreign investment.

India is currently one of the world's most exciting emerging markets. India has a distinct advantage in the global competition thanks to skilled managerial and technical manpower that is on par with the best in the world and a middle class that is larger than the populations of the USA or the European Union. The general Internet usage environment in a nation affects the adoption and use of any advanced applications, such as online gaming. It is crucial to map the current state of the Internet ecosystem in India in order to accurately understand the likely growth path for online gaming.

The number of users overall, their level of wealth, the availability of enabling infrastructure, and patterns in the adoption of other applications are some of the crucial factors that must be understood. An accurate mapping of these would aid in comprehending the overall context of Indian online gaming. According to the data in the chart below, which represents internet usage in India as of June 30, 2012, there is a significant untapped market opportunity.

Introduction to Online Gaming

Since the 1970s, playing video games has gained in popularity all over the world. With the development of digital technology, mobile communications, and the Internet in the 1990s, video games have become more and more popular. PC, console, wireless, multiplayer, and massively multiplayer online role-playing games are the different types of gaming (MMORPG).

Games that are created and played online typically use some type of computer network. It ranges from straightforward text-based games to those with complex graphics and virtual worlds that are simultaneously populated by many players. The development of personal

computers and the internet during the 1990s gave traditional PC games on solitary individual PCs a great opportunity to move into the boundless universe of cyberspace, where it is now possible to start multiplayer games with players from around the globe participating via the internet highway. The world of video games has evolved over the years.

The economic sector responsible for the creation, promotion, and retailing of video and computer games is known as the video game industry, or interactive entertainment. Online games, handheld devices, mobile games, game software, and video game consoles are all included. The video gaming market has been expanding rapidly in recent years. Future growth is anticipated to outpace current growth. Online games are now very popular in India after becoming extremely well-liked in the US, the UK, China, and Japan, among other countries. Playing a video game online simply means doing so while connected to the internet, typically with friends. Online games can be played on a wide range of gadgets, including PCs, laptops, mobile phones, and specialised gaming consoles like PlayStations, Xboxes, and Nintendo Switches. Online gaming offers a variety of advantages. Unfortunately, there are some risks associated with it. The ability to play and chat with people around the world can expose kids to scams, grooming, and online bullying in addition to the development of gaming disorders.

Skin betting and loot boxes have also drawn considerable attention for promoting similar gambling-related behaviour. For these reasons, it's crucial that dependable adults become knowledgeable about online gaming and learn how to ensure children play it safely.

Online Games and India

The gaming industry in India has recently expanded to include online gaming. With the introduction of consoles, electronic gaming in India began years ago. As PC adoption increased, so did offline gaming. In India, the gaming sector is still in its infancy, but it holds tremendous growth potential. A high proportion of young people, steadily rising disposable incomes, an increase in wireless usage, and a proliferation of game developers are some of the key factors that are advancing this industry. Mobile phones and personal computers are now much more widely used, which has also contributed to the industry's growth. With the introduction of new technologies into the gaming circuit, the global gaming industry is constantly evolving, and this has had a significant impact in India. Customers' demand for new innovations is continually growing in the domestic market as well.

The emergence of online gaming addiction

The Internet is a recent technology that has changed the world and given its users many advantages. However, the Internet has also had unfavourable effects. Some people are putting their jobs and relationships in danger by becoming obsessive online and being unable to control their use.

The unrestrained, destructive use of this technology has given rise to the theory of "Internet addiction." The United States is where research on Internet addiction first began. Internet addiction has been studied more recently in a growing number of nations, including the Czech Republic, Pakistan, and Italy (Ferraro, Caci, D'Amico, & Di Blasi, 2007). (Simkova & Cincera,

2004). According to reports, online gaming addiction has also become a significant public health issue in China (BBC, 2007), Korea (Hur, 2006), and Taiwan (Lee, 2007). Of the more than 30 million Internet users in China, 10% were reportedly addicted. Chinese authorities regularly shut down Internet cafes and implemented laws to restrict the amount of time teenagers can spend playing online games to combat what has been called an epidemic.

Online addiction has a specific subtype that includes excessive gaming (Block, 2008). Although it is difficult to determine the extent of the issue, the American Medical Association estimates that up to 90% of American children play video games, and that up to 15% of these more than 5 million kids may be addicted (Tanner, 2007). Online gaming-related issues have gotten so bad that the Netherlands now has the first Detox Center for Video Game Addiction (CBSNews.com, 2006). "Video games may appear innocent, but they can be just as hard to stop playing once you get hooked as drugs or gambling," said Keith Bakker, the center's founder and director of Smith & Jones Addiction Consultants in Amsterdam.

Methodology

The study is being conducted among the Adolescent of the overall Chennai city which was to the capital city of Tamil Nadu. Also, this study aims to explore popular online video game identifying for addiction among Adolescent. The research is carried out using a quantitative survey method and descriptive analysis was used in this study. The Snowball sampling technique is used for this study. Focusing on the main objectives of the study, an online questionnaire consisting of both closed-ended and open-ended was constructed. The questionnaire was distributed online to the respondents by responding on Facebook, Instagram, and WhatsApp groups. The questionnaire was distributed through the Google form and collected data from 160 respondents. In that 15 samples were rejected because of invalid response and 145 samples were taken for the study.

Discussion and analysis

Sample distribution regarding age

The focused random sampling technique used for this study contains the sample distribution of more than 145 respondents and the data collected through the google form in 2023. Because the data was collected only from the age group between the last phase of adolescent starting phase of (13-18) for a better understanding of the influence of online gaming addiction and to know about the risk in the factor of mental and health-related problems occurred among students who regularly play online games in their day-to-day life. In this response, nearly 58 percent of the students were from the 17 to 18-year age group, 28 percent of the respondents belonged to the 15 – 16-year age group and only 14 percent of the students whose age was above 18 years were considered for the study. This shows that the respondents were valid for the research to understand the impact of online gaming on the student's life cycle.

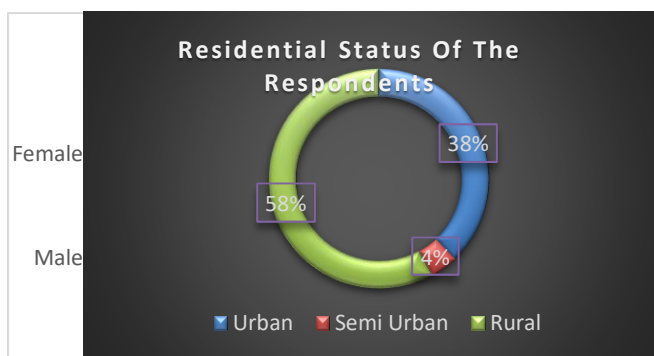
**Fig. 1.1****Fig. 1.2**

Fig 1.1, shows that more than 60 percent of the respondents were male and nearly 40 percent of the respondents were female. This shows that apart from the social media fever most youngsters are engaging themselves in online gaming to manage their boredom. The data shows that (**Fig 1.2**) more than 58% of the participants belong to Rural areas and 38 % of the participants belong to Urban areas which provide the scope for the students to know about online games for social connectivity and lack of outside atmosphere create an addiction to the particular popular culture. Apartment-based lifestyle and the Covid-19 lockdown created a huge impact on the lifestyle change and playing pattern change of the GanZ people. Interestingly, more than 85 students belong to rural areas playing online games. This result shows how the globalization process, the intervention of Jio telecom service, and the digital India process create awareness and impact in the rural area people. All the respondents were aware of the online game, and they regularly spent a few hours a day playing those games for their stress relief.

36 percent of the respondents whose family income was around one lakh – two lakhs per annum were studied in Matriculation schools. 54 percent of the respondents, whose family income was around 50 thousand rupees to one lakh per year were studied in either Government school or Government aided school.

Fig 1.3: The graphical figure was about the response detail to the question ‘How often do you play online games?’

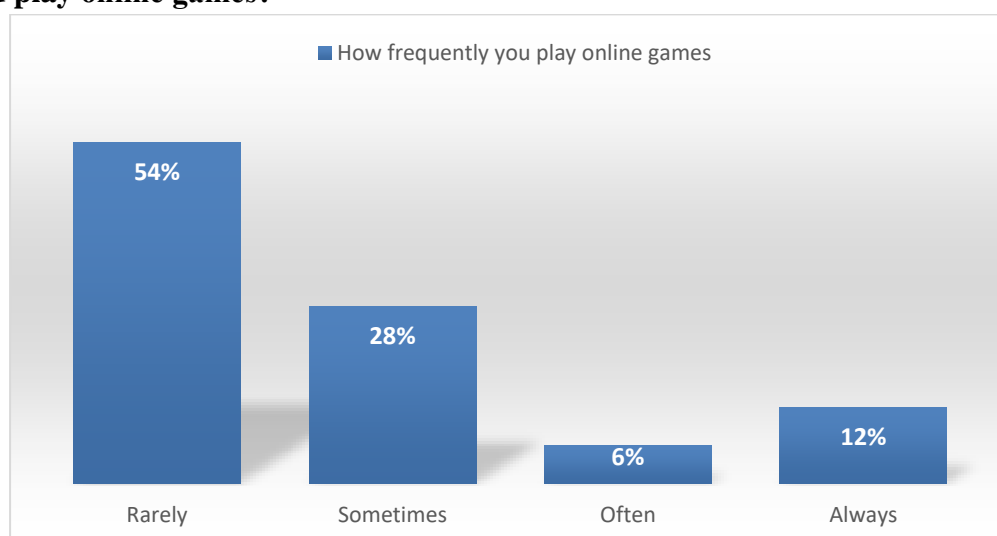
**Fig. 1.3**

Fig 1.3, shows that 54 percent of the respondents rarely use online games for entertainment aspects. Also, more than 28 percent of the students mentioned that they sometimes frequently

use online games; if they don't get access to play, they won't bother about that. This shows that more than 80 percent of the students engage with online games, whenever they want to connect with them. Apart from the addiction level in a rural area belonging students use games during their boredom. Only 12 percent of the respondents said they have an urge always to play online games and the remaining 6 percent of the respondents mentioned that they often use online games for stress relief.

Fig 1.4: The graphical figure shows the audience preferred genre of online games.

The graphical figure (**Fig 1.4**), shows that more than 52 percent of the respondents prefer shooting games as their favorite. 23 percent of the respondents reacted to racing-related games as their preferred genre for playing online for a better audience experience. More than 14 percent of the respondents mentioned action or violent content having games as their favorite genre type. Nearly 11 percent of the audience played Role play games in their free time for better engagement and a user fulfilling experience and also, because of the better graphics and engaging factors.

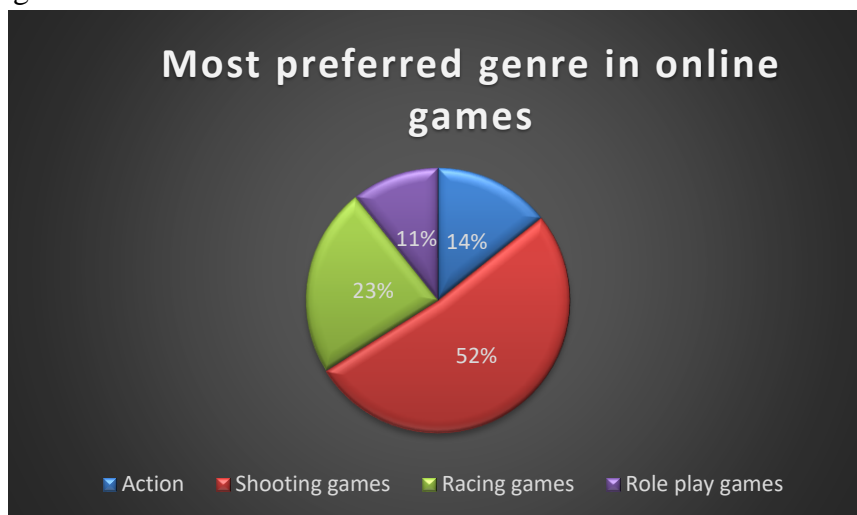


Fig. 1.4

From the above figure, we could easily conclude that Shooting and action-type games were the most preferred genre of the current generation's audience. Also, they like multiplayer role-play games for a better user experience.

More than 94 percent of the respondents from the rural and semi-urban areas said they use mobile phones for playing online games, and the remaining 6 percent responded that they use computers and laptops for playing online games.

Fig 1.5: The graphical figure shows the audience response related to the weekly hours spent by the students playing online games.

**Fig. 1.5**

Fig 1.5, This result shows that the students' residency influences the tendency to play online games for relief and the social connection parameters. To strengthen this statement nearly, 34 percent of the respondents from the non-urban areas spend 5 – 20 hours a week playing online games, which makes them addicted to those games. Because of the continuous activity of the respondents playing online games, they often feel physical pain and eye-related issues. More than 70 percent of the respondents mentioned that they felt that kind of physical pain during and after playing online games. More than 64 percent of the respondents mentioned spending less than 5 hours a week playing online games. The remaining 2 percent of the students have big trouble with the case of habit change and mingling with the peer group because they spend more than 40 hours a week. Which was like average they spend 5 – 6 hours a day apart from the time they spend on their studies and sleep cycle.

More than 80 percent of the respondents mentioned that they spend money on online games for the user experience and premium offered by the gaming company. To showcase their dominance and connect with the peer group some of the respondent's spent money on purchasing the elite gift vouchers and other offers provided in the game. Most students spend nearly 3 thousand per month on online games for elite vouchers and other customized costumes in role-playing games. More than 50 percent of the respondents said they could feel some behavior change after continuously playing the online game. Even though 48 percent of the respondents said, they never experienced any behavior change because of the online games.

Fig 1.6: The graphical figure shows the audience response related to the purpose of playing online games.

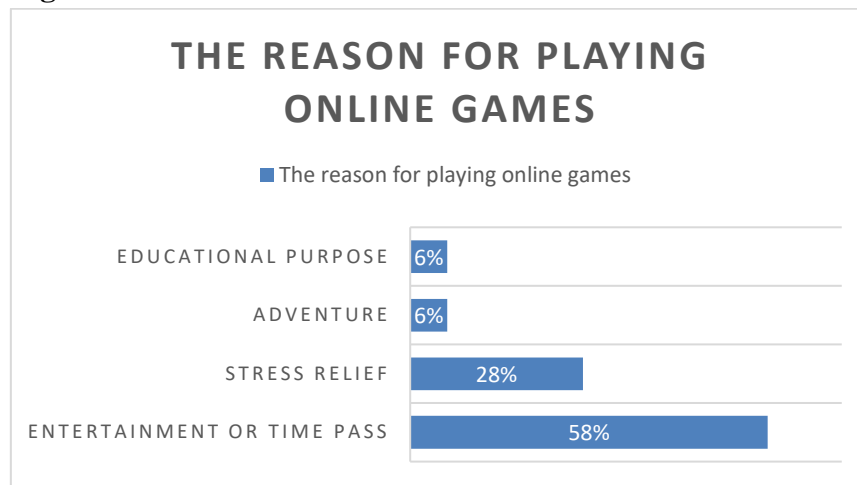


Fig. 1.6

Fig 1.6, clearly shows that most of the respondents play online games for entertainment purposes. Nearly 58 percent of the respondents mentioned that they use online games for entertainment purposes or time pass activity. 28 percent of the respondents mentioned that they use online games for stress relief factor. To get out of the routine stress and engage with the peer group most of the respondents use online games and role-play multiplayer games. Nearly 6 percent of the students said that they use online games for the adventure feeling they get while playing the games. Only 6 percent of the respondents mentioned those other parameters also responsible for playing online games like educational purposes and social connectivity with the peer group. This also plays a major role in the regular use of online games. The virtual creation of a new world shown by online games attracts most respondents to regularly play those games for real-world satisfaction.

Fig 1.7: The graphical figure shows the audience response related to the risk and impacts of playing online games.

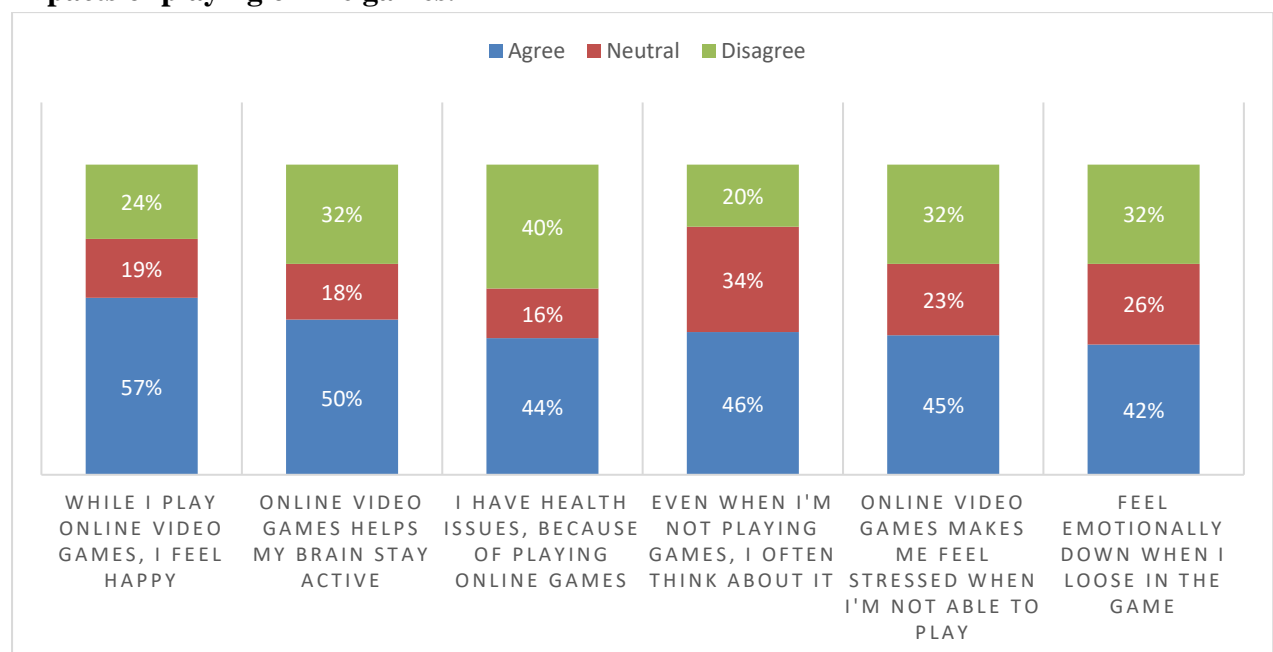


Fig. 1.7

Fig 1.6, clearly shows that more than 57 percent of the respondents felt that they were feeling happy while playing online games, and only 24 percent of the students disagreed with this statement. Nearly 50 percent mentioned that they have strong beliefs regarding playing online games boosting active brain functions. Even though 44 percent of the respondents agreed that playing online games causes health and mental issues, nearly 40 percent of the respondents disagree with the same statement. 46 percent of the respondents have repeated thoughts about the online game, even though they are not playing that game then. 45 percent of the students agreed that they were addicted to online games because they feel stressed when they cannot play online games when they have the urge to play. Though 32 percent of the respondents from rural areas disagree with this statement. More than 42 percent mentioned that they emotionally feel down when they lose in an online game. This concluded that the majority of the respondents at the age of 15 years to 18 years have an addictive mindset to playing online games.

Through the survey, the researchers could conclude that by playing online games the focused group faced some negative impacts and they felt addicted to the games. Nearly 75 percent of the respondents mentioned that because of playing the online game they could feel the enormous impact in sense of the physical, mental, and psychological aspects. Also, more than 60 percent of the respondents reacted that they were aware about they were addicted to online games. Only less than 25 percent of the respondent refused to accept the addiction level and other impact factors caused because of online games. They might still not be aware of or experienced those factors.

Conclusion

The identification of a small group of addicted online gamers supports efforts to develop and validate questionnaire scales aimed at measuring the phenomenon of online video game addiction. For digital usage purposes, current adolescent grabs a personal cell phone or laptop that provides space and access opportunities to play online games. This made most of the focus group addicted to online games, and they played various multiplayer online role-playing games. Major percentage of the respondents admitted that they were addicted to online games and felt some mental or psychological impact on their regular routine. The development of malware can have a huge impact on those who spend a lot of time in games. Therefore, this area needs to be addressed now for the betterment of the coming generation of India. If the popular culture of playing online games becomes routine, it will affect the education system and influence the behaviors of the upcoming youth. Also, this study was only conducted with a small population, and the effect would be affected if the number was increased. The researcher suggested that understanding the interest in playing online games and the social connection aspect of students should be studied in a broader format for further study. Also, understanding or measuring addiction status and behavioral changes in a focus group. Finally, different types of online video games are available. Whereas 'online video games' are an advancement of the unified 'video games' approach, future research may benefit from further differentiation, e.g., by distinguishing online First-Person Shooter games from online Role-Playing Games.

References

- Müller, K. W., Janikian, M., Dreier, M., Wölfling, K., Beutel, M. E., Tzavara, C., Richardson, C., & Tsitsika, A. (2015). Regular gaming behavior and internet gaming disorder in European adolescents: results from a cross-national representative survey of prevalence, predictors, and psychopathological correlates. *European Child and Adolescent Psychiatry*, 24(5), 565–574. <https://doi.org/10.1007/s00787-014-0611-2>
- Apperley, T., & Walsh, C. (2012). What digital games and literacy have in common: A heuristic for understanding pupils' gaming literacy. *Literacy*, 46(3), 115–122. <https://doi.org/10.1111/j.1741-4369.2012.00668.x>
- Author, L., Gerber, H. R., & Price, D. P. (2011). Twenty-First-Century Adolescents, Writing, and New Media: Meeting the Challenge with Game Controllers. In *Source: The English Journal* (Vol. 101, Issue 2).
- Leander, K. M., & Lovvorn, J. F. (2006). Literacy Networks: Following the Circulation of Texts, Bodies, and Objects in the Schooling and Online Gaming of One Youth. In *COGNITION AND INSTRUCTION* (Vol. 24, Issue 3).
- Badrinarayanan, V. A., Sierra, J. J., & Martin, K. M. (2015). A dual identification framework of online multiplayer video games: The case of massively multiplayer online role-playing games (MMORPGs). *Journal of Business Research*, 68(5), 1045–1052. <https://doi.org/10.1016/j.jbusres.2014.10.006>
- Felszeghy, S., Pasonen-Seppänen, S., Koskela, A., Nieminen, P., Härkönen, K., Paldanius, K. M. A., Gabbouj, S., Ketola, K., Hiltunen, M., Lundin, M., Haapaniemi, T., Sointu, E., Bauman, E. B., Gilbert, G. E., Morton, D., & Mahonen, A. (2019). Using online game-based platforms to improve student performance and engagement in histology teaching. *BMC Medical Education*, 19(1). <https://doi.org/10.1186/s12909-019-1701-0>
- Procci, K., Bohnsack, J., & Bowers, C. (2011). LNCS 6774 - Patterns of Gaming Preferences and Serious Game Effectiveness. In *LNCS* (Vol. 6774).
- Hanghøj, T., Kabel, K., & Jensen, S. H. (2022). DIGITAL GAMES, LITERACY AND LANGUAGE LEARNING IN L1 AND L2. *L1 Educational Studies in Language and Literature, Speciall Issue*. <https://doi.org/10.21248/11esll.2022.22.2.363>
- Beavis, C., Apperley, T., Bradford, C., O'Mara, J., & Walsh, C. (2009). Literacy in the digital age: Learning from computer games. *English in Education*, 43(2), 162–175. <https://doi.org/10.1111/j.1754-8845.2009.01035.x>
- Rosenberg, K., Liu, S., Gathegi, J., & Watson, R. (2011). *Gaming Literacy: Construct Validation and Scale Construction*.
- Paulus, F. W., Ohmann, S., von Gontard, A., & Popow, C. (2018). Internet gaming disorder in children and adolescents: a systematic review. In *Developmental Medicine and Child Neurology* (Vol. 60, Issue 7, pp. 645–659). Blackwell Publishing Ltd. <https://doi.org/10.1111/dmcn.13754>
- Kökönyei, G., Kocsel, N., Király, O., Griffiths, M. D., Galambos, A., Magi, A., Paksi, B., & Demetrovics, Z. (2019). The role of cognitive emotion regulation strategies in problem gaming among adolescents: A nationally representative survey study. *Frontiers in Psychiatry*, 10(APR). <https://doi.org/10.3389/fpsy.2019.00273>

- Seok, H. J., Lee, J. M., Park, C. Y., & Park, J. Y. (2018). Understanding internet gaming addiction among South Korean adolescents through photovoice. *Children and Youth Services Review*, 94, 35–42. <https://doi.org/10.1016/j.chidyouth.2018.09.009>
- Pampi, M., & Asghar, M. (2021). A Blur Line Between Hobby and Addiction: Online Video Gaming Among the Youth of Arunachal Pradesh. *Oriental Anthropologist*, 21(1), 116–124. <https://doi.org/10.1177/0972558X21994249>
- van Rooij, A. J., Schoenmakers, T. M., Vermulst, A. A., van den Eijnden, R. J. J. M., & van de Mheen, D. (2011). Online video game addiction: Identification of addicted adolescent gamers. *Addiction*, 106(1), 205–212. <https://doi.org/10.1111/j.1360-0443.2010.03104.x>
- Kuss, D. J., & Griffiths, M. D. (2012). Online gaming addiction in children and adolescents: A review of empirical research. In *Journal of Behavioral Addictions* (Vol. 1, Issue 1, pp. 3–22). Akademiai Kiado Rt. <https://doi.org/10.1556/JBA.1.2012.1.1>
- Ferraro, G., Caci, B., D'Amico, A., & Di Blasi, M. (2007). Internet addiction disorder: An Italian study. *CyberPsychology & Behavior*, 10(2), 170–175. <https://doi.org/10.1089/cpb.2006.9972>
- Barbora Simkova and Jan Cincera, (2004). Internet Addiction Disorder and Chatting in the Czech Republic. *CyberPsychology & Behavior*. 536-539. <http://doi.org/10.1089/cpb.2004.7.536>
- Hur, M.H. (2006). Empowerment in Terms of Theoretical Perspectives: Exploring a Typology of the Process and Components across Disciplines. *Journal of Community Psychology*, 34, 523-540.
- Lee, K., Lee, H., and Kim, S. (2007). Factors Influencing the Adoption Behavior of Mobile Banking: A South Korean Perspective. *Journal of Internet Banking & Commerce*, 12, 1-9.
- Ashton, M. C., & Lee, K. (2007). Empirical, theoretical, and practical advantages of the HEXACO model of personality structure. *Personality and Social Psychology Review*, 11(2), 150 – 166. <https://doi.org/10.1177/1088868306294907>
- Block, P. (2008). Community: The structure of belonging. *Berrett-Koehler Publishers*.
- Tanner, D., & Tanner, L. (2007). Curriculum Development: Theory into Practice (4th ed.). Upper Saddle River, New Jersey Columbus, Ohio: Pearson Merrill Prentice Hall.