



Internet Gaming: Investigating Gamer Profiles Using the IGD-20 Scale

Syeda Zubera Rida

MSc Psychology, Jain (Deemed-to-be University), Bengaluru, India

Email: syedazuberarida@gmail.com

ARTICLE DETAILS

Research Paper

Accepted: 24-05-2025

Published: 10-06-2025

Keywords:

Internet Gaming Disorder, IGD-20 Scale, Competitive gaming, Educational gaming, Indian gamers, gamified learning, mobile gaming, National Education Policy 2020

ABSTRACT

This study examines Internet Gaming Disorder (IGD) risk among 98 Indian gamers (aged 18–35), comparing Competitive and Educational gamers using the IGD-20 Scale. India's gaming surge, fueled by 700 million Smartphone users, necessitates genre-specific IGD research. A cross-sectional survey revealed Competitive gamers ($M = 53.40$, $SD = 13.20$) scored significantly higher than Educational gamers ($M = 38.70$, $SD = 10.50$), $t(96) = 14.18$, $p < 0.001$, with a large effect size (Cohen's $d = 1.235$). IGD-20 scores correlated moderately with weekly gaming hours ($r = 0.45$, $p < 0.001$) and academic/professional disruptions ($r = 0.42$, $p < 0.001$). The IGD-20 showed high reliability (Cronbach's $\alpha = 0.912$), though two items suggested cultural misalignment, indicating a need for localized validation. Findings support gamified learning's safety for India's education system, per the National Education Policy 2020, while urging interventions for Competitive gaming's IGD risks. Results inform ethical game design and public health strategies in India's mobile-driven gaming landscape.

DOI : <https://doi.org/10.5281/zenodo.15652494>

1 Introduction

India's gaming industry, projected to reach USD 2 billion by 2025, is driven by 700 million smartphone users and affordable data plans (Statista, 2024). Mobile gaming dominates, with Competitive genres like Battlegrounds Mobile India (BGMI) fostering social engagement, while Educational games like Byju's support learning (Deloitte India, 2023). However, excessive gaming raises concerns about Internet Gaming



Disorder (IGD), recognized in the DSM-5 and ICD-11 (American Psychiatric Association, 2013; World Health Organization, 2018). Competitive games, with reward-driven mechanics, may heighten IGD risk, unlike structured Educational games (Kuss and Griffiths, 2012). India’s collectivist culture and academic pressures amplify gaming as a stress-coping mechanism, yet IGD research is scarce (Sharma and Mahajan, 2022). The IGD-20 Scale, validated globally, assesses IGD symptoms but requires cultural validation in India (Pontes et al., 2014). This study compares IGD-20 scores between Competitive and Educational gamers, hypothesizing higher scores for Competitive gamers (H1), lower scores for Educational gamers (H2), and correlations with academic/professional disruptions (H3). Findings aim to inform safe gamified learning and IGD interventions in India’s digital landscape.

2 Materials and Methods

A cross-sectional survey recruited 98 Indian gamers (aged 18–35) via convenience and snowball sampling through social media and university networks. Inclusion criteria were regular gaming (1 hour/week), Indian residency, and English proficiency. Participants completed a Google Forms survey comprising:

- Socio-Demographic Questionnaire: Age, gender, education, gaming platform, weekly gaming hours, primary game type (Competitive or Educational), and academic/professional impact (1 = no impact, 5 = severe).
- IGD-20 Scale (Pontes et al., 2014): 20 items, 5-point Likert scale (1 = Never, 5 = Very Often), assessing DSM-5 IGD criteria (Cronbach’s $\alpha = 0.912$). Total scores range from 20–100; items 2 and 19 are reverse-scored.

Data were analyzed using SPSS-style methods: descriptive statistics, independent sam- ples t-test, Pearson correlations, and exploratory factor analysis (EFA) with promax rotation. Ethical approval ensured informed consent and anonymity.

Table 1: Demographic Characteristics of the Sample ($N = 98$)

Characteristic	Category	Percent (%)
Age Group	18–25 years	61.2
	26–35 years	38.8
Gender		



Male	68	69.4
Female	30	30.6
Education Level		
High School	15	15.3
Undergraduate	55	56.1
Postgraduate	28	28.6

3 Results

The sample ($N = 98$) was predominantly male (69.4%) and young (61.2% aged 18–25) (Table 1). The IGD-20 mean score was 46.23 ($SD = 14.49$), with 5–10% scoring 71, indicating potential IGD risk (Table 2). A histogram (not shown) depicted a slightly left-skewed distribution, peaking at 40–50. Competitive gamers ($n = 49$, $M = 53.40$, $SD = 13.20$) scored significantly higher than Educational gamers ($n = 49$, $M = 38.70$, $SD = 10.50$), $t(96) = 14.18$, $p < 0.001$, Cohen's $d = 1.235$ (Table 3), supporting H1 and H2. Pearson correlations showed IGD-20 scores correlated with weekly gaming hours ($r = 0.45$, $p < 0.001$) and academic/professional impact ($r = 0.42$, $p < 0.001$), supporting H3. EFA revealed a single factor (44.7% variance), with high loadings for withdrawal and salience items, but low loadings for items 2 and 20, suggesting cultural misalignment.

Table 2: Descriptive Statistics for IGD-20 Scores

Variable	Minimum	Maximum	M	SD
IGD-20 Total	19.00	85.00	46.23	14.49
Competitive Gamers	25.00	85.00	53.40	13.20
Educational Gamers	20.00	60.00	38.70	10.50

Table 3: Independent Samples T-Test for IGD-20 Scores by Gamer Type

Group	n	M	SD	$t(96)$	p
Competitive	49	53.40	13.20	14.18	< 0.001
Educational	49	38.70	10.50		

Note. Cohen's $d = 1.235$.



4 Discussion

Competitive gamers exhibited significantly higher IGD-20 scores than Educational gamers, aligning with the Cognitive-Behavioral Model and Self-Determination Theory, as Competitive games' reward systems and social pressures foster compulsive play (Davis, 2001; Deci and Ryan, 1985). The large effect size ($d = 1.235$) underscores gaming type's impact, amplified by India's mobile gaming surge (Statista, 2024). Educational gamers' lower scores support gamified learning's safety, aligning with the National Education Policy 2020 (Ministry of Education, 2020). Correlations with gaming hours and disruptions highlight IGD's practical impacts, consistent with prior findings (Gentile et al., 2011). The IGD-20's reliability ($\alpha = 0.912$) is robust, but two items' misalignment suggests cultural adaptation needs (Pontes et al., 2014). Limitations include self-report bias, cross-sectional design, and binary gamer classification. Future research should explore longitudinal effects, objective data, and additional genres to refine IGD interventions and educational game design in India's USD 2 billion gaming market.

5 Conclusion

This study confirms Competitive gaming's higher IGD risk compared to Educational gaming among Indian gamers, supporting safe gamified learning integration. Findings advocate for ethical game design and public health strategies to mitigate IGD, contributing to India's gaming and educational policy frameworks.

Acknowledgements

Thanks to Jain (Deemed-to-be University) for ethical approval and participants for their cooperation. No funding was received.

References

- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). American Psychiatric Association Publishing. <https://doi.org/10.1176/appi.books.9780890425596>
- Davis, R. A. (2001). A cognitive-behavioral model of pathological Internet use. *Computers in Human Behavior*, 17(2), 187–195. [https://doi.org/10.1016/S0747-5632\(00\)00041-8](https://doi.org/10.1016/S0747-5632(00)00041-8)



- Deci, E. L., & Ryan, R. M. (1985). Intrinsic motivation and self-determination in human behavior. Springer. <https://doi.org/10.1007/978-1-4899-2271-7>
- Deloitte India. (2023). India's gaming market projections. Deloitte India.
- Gentile, D. A., Choo, H., Liau, A., Sim, T., Li, D., Fung, D., & Khoo, A. (2011). Pathological video game use among youths: A two-year longitudinal study. *Pediatrics*, 127(2), e319–e329. <https://doi.org/10.1542/peds.2010-1353>
- Kuss, D. J., & Griffiths, M. D. (2012). Internet gaming addiction: A systematic review of empirical research. *International Journal of Mental Health and Addiction*, 10(2), 278–296. <https://doi.org/10.1007/s11469-011-9318-5>
- Ministry of Education. (2020). National Education Policy 2020. Government of India. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf
- Pontes, H. M., Király, O., Demetrovics, Z., & Griffiths, M. D. (2014).
- The conceptualisation and measurement of DSM-5 Internet Gaming Disorder: The development of the IGD-20 Test. *PLoS ONE*, 9(10), e110137. <https://doi.org/10.1371/journal.pone.0110137>
- Sharma, R., & Mahajan, A. (2022). Gaming as a coping mechanism: Psychological impacts among Indian youth. *Journal of Indian Psychology*, 10(3), 45–60.
- Statista. (2024). Mobile gaming in India: Market insights and user demographics.
- Statista.
- World Health Organization. (2018). International classification of diseases for mortality and morbidity statistics (11th ed.). World Health Organization. <https://icd.who.int/>