

A Study on Mobile Gaming Usage and Its Effect on Academic and Personal Performance Among Adolescence

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Abstract

This study examines mobile gaming usage and its impact on the academic performance and personal life of adolescents in Coimbatore. Using a descriptive research design and data collected from 103 respondents, the study analyses gaming patterns, frequency, and behavioural outcomes. Findings indicate that while moderate gaming can enhance cognitive skills and provide relaxation, excessive usage leads to poor academic performance, time mismanagement, and negative behavioural changes. The study highlights the importance of maintaining balanced gaming habits and emphasizes the role of parents and educators in guiding adolescents toward responsible gaming practices.

Keywords:

Mobile Gaming - Adolescents - Academic Performance - Behaviour - Time Management-
Gaming Addiction

INTRODUCTION

Mobile gaming has become a popular form of entertainment among adolescents due to the rapid growth of smartphones and internet access. It offers convenience, accessibility, and a wide variety of engaging games that attract young users. Adolescents increasingly use mobile games for relaxation, social interaction, and enjoyment. While gaming can improve cognitive skills such as problem-solving and coordination, excessive usage may negatively affect academic performance and personal behaviour. It can lead to poor time management, reduced concentration, and decreased physical activity. The growing concern is the balance between

the benefits and drawbacks of gaming. Therefore, it is important to understand gaming patterns among adolescents. This study focuses on analysing mobile gaming usage and its impact on academic and personal life

STATEMENT OF PROBLEM

The rapid increase in smartphone usage has made mobile gaming a common activity among adolescents. While it provides entertainment and relaxation, excessive gaming has become a growing concern. Many adolescents spend a significant amount of time on mobile games, which may negatively affect their academic performance by reducing study time, concentration, and time management. In addition, excessive gaming can influence personal life, leading to issues such as reduced physical activity, sleep disturbances, social isolation, and behavioural changes. Despite its popularity, there is a need to clearly understand whether mobile gaming has a positive or negative impact on adolescents. Therefore, this study aims to analyse the pattern of mobile gaming usage and its effect on the academic and personal performance of adolescents.

OBJECTIVES

- 1.To identify the factors influencing Adolescence to play mobile games.
- 2.To study the effects of mobile gaming usage and habitual patterns among adolescence.
- 3.To assess the positive and negative effects of mobile gaming on students' academic and personal performance in daily routine.

RESEARCH METHIDODOLOGY

This study adopts a descriptive research design to examine mobile gaming usage and its impact on adolescents' academic and personal performance. The research is conducted in Coimbatore city, focusing on students from schools and colleges. Both primary and secondary data are used, where primary data is collected through structured questionnaires using Google Forms and direct surveys, and secondary data is gathered from books, journals, and reliable online sources. The study employs a convenience sampling technique with a sample size of 103 respondents. A structured questionnaire is used as the main research instrument, consisting of mostly closed-ended questions. The collected data is analysed using statistical tools such as

- Simple percentage
- Ranking analysis
- Chi-square test
- ANOVA

REVIEW OF LITERATURE

Rahman et al. (2025)¹ “Explore the effects of technology addiction, including electronic games and social media use, on academic performance and psychiatric symptoms among school-age adolescents”. The study highlights that excessive engagement with digital platforms is associated with lower academic achievement and increased risk of mental health issues, such as anxiety, depression, and attention problems. It suggested that both gaming and social media use can serve as coping mechanisms but may exacerbate psychiatric symptoms when overused. Prior studies cited in the research emphasize that addiction behaviors disrupt sleep, reduce study time, and impair concentration, contributing to poor school performance. The literature underscores the importance of parental monitoring, self-regulation, and digital literacy in mitigating negative consequences. The study concluded that responsible use of technology is critical to safeguarding both academic success and psychological well-being among adolescents.

Kaya and Sarpkaya (2025)² “Explored how digital game addiction severity relates to academic procrastination and school burnout in adolescents” aimed to examine how the severity of digital game addiction was related to academic procrastination and school burnout among adolescents. The researchers conducted a cross-sectional study involving 313 adolescents to analyze the relationship between excessive gaming behavior and academic difficulties. The study focused on how digital game addiction influenced students’ study routines, motivation, and emotional engagement with school tasks. It also explored the mediating role of academic procrastination in the association between gaming addiction severity and school burnout. The results indicated that higher levels of game addiction were positively associated with academic procrastination and increased school burnout, with academic procrastination partially mediating the relationship between gaming addiction and burnout. The study concluded that excessive gaming contributed to academic disengagement and emotional exhaustion, emphasizing the need for preventive and intervention programs addressing both gaming addiction and procrastination among adolescents.

Tang, Shen, Khan, and Wang (2025)³ “Investigated how mobile phone use relates to students’ academic achievement” aimed to examine how mobile phone use was related to students’ academic achievement, psychological well-being, and socio-psychological functioning. The researchers conducted a quantitative cross-sectional survey involving 300 students in China to analyze the influence of mobile phone usage patterns on academic and mental health outcomes. The study focused on the use of mobile phones for entertainment activities such as social media, messaging, and music, and how these habits affected students’ concentration, stress levels, and academic engagement. It also examined moderating factors such as age, gender, and academic discipline to understand how different contexts shaped the impact of mobile phone use on students. The results showed that excessive mobile phone use for entertainment was negatively associated with academic performance and was linked to higher stress and mental health concerns. The study concluded that uncontrolled mobile phone usage adversely affected students’ academic functioning and psychological well-being, highlighting the importance of balanced usage and effective time-management interventions.

DATA ANALYSIS AND INTERPETION

SIMPLE PERCENTAGE

GENDER OF THE RESPONDENTS

To identify the gender distribution of the respondents, they are categorized based on gender. Gender plays an important role in understanding differences in mobile gaming usage patterns and its effects among adolescents. The respondents are grouped into categories such as Male and Female, as presented in the following table.

TABLE 4.1 GENDER OF THE RESPONDENTS

	Frequency	Precent
Male	74	71.8
Female	29	28.2
Total	103	100

Source: Primary Data

INTERPRETATION:

Table 4.1 indicates that out of the total respondents taken for the study, 74 (71.8%) respondents are male and 29 (28.2%) respondents are female.

Majority of the respondents are male (71.8%).

RANKING ANALYSIS

TABLE 4.20 RANKING OF TIME PERIODS WHEN STUDENTS MOSTLY PLAY MOBILE GAMES

	Mean Rank	Ranking
Before school/college	4.38	III
During breaks	3.36	IV
After school/college	2.68	II
Late night	2.25	I
Weekends	2.33	V

INTERPRETATION:

The ranking analysis shows that among the preferred time periods for mobile gaming, *Before school/college* has secured the highest mean rank of **4.38**, indicating it is the most preferred time for respondents to engage in mobile gaming. This is followed by *During breaks* with a mean rank of **3.36**, suggesting that short free periods are also commonly used for gaming.

After school/college holds a moderate position with a mean rank of **2.68**, indicating a fair level of preference among respondents. *Weekends* have a slightly lower mean rank of **2.33**, showing that gaming during weekends is less prioritized compared to weekdays.

Late night has the lowest mean rank of **2.25**, indicating it is the least preferred time for mobile gaming among the respondents.

The results of the Friedman Test show a Chi-Square value of **129.367** with **4 degrees of freedom** and a significance value of **0.000**, which is less than 0.05. This indicates that there is a statistically significant difference in the ranking of preferred time periods for mobile gaming.

Overall, before school/college (4.38) emerges as the most preferred time for mobile gaming, while Late night is the least preferred among the respondents.

ANOVA

TABLE 4.21 RELATIONSHIP BETWEEN AGE AND PREVENTING METHODS DO YOU USE TO TIME LIMIT

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.059	3	1.020	1.773	.157
Within Groups	56.922	99	.575		
Total	59.981	102			

HYPOTHESIS:

H0: There is no significant difference between age and the methods used to limit time.

H1: There is a significant difference between age and the methods used to limit time.

INTERPRETATION:

The ANOVA table shows that the significance value (0.157) is greater than 0.05. This indicates that there is no statistically significant difference among different age groups in terms of the methods they use to limit their time (such as setting alarms, using parental controls, engaging in other activities, or relying on self-control).

Therefore, the null hypothesis (H0) is accepted, and it can be concluded that age does not significantly influence the choice of time-limiting methods among the respondents.

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TABLE 4.23 RELATIONSHIP BETWEEN AGE AND THE PERSONAL HABIT MOST INFLUENCED BY MOBILE GAMING IN DAILY ROUTINE

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.586 ^a	6	.024
Likelihood Ratio	15.787	6	.015
Linear-by-Linear Association	6.349	1	.012
N of Valid Cases	103		

HYPOTHESIS:

H0: There is no significant association between age and the personal habit most influenced by mobile gaming in daily routine.

H1: There is a significant association between age and the personal habit most influenced by mobile gaming in daily routine.

INTERPRETATION:

The Chi-Square test shows that the significance value (0.024) is less than 0.05. This indicates that there is a statistically significant association between age and the personal habits influenced by mobile gaming (such as sleep pattern, physical activity, time management, and social interaction).

Therefore, the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is accepted. It can be concluded that age significantly influences which personal habit is most affected by mobile gaming among the respondents.

FINDINGS

- Most respondents are male, aged 13–15, from rural areas, living in nuclear families, and pursuing an undergraduate degree.
- The majority use their own Android smartphones and mobile data for gaming.
- Most started gaming before age 10, were influenced by friends, and play mainly when bored.
- Mobile gaming affects sleep and reduces physical activity, though many can manage when restricted.
- Rewards strongly motivate gaming, problem-solving is a key benefit, and age mainly influences personal habits but not other gaming behaviors.

SUGGESTION

- Adolescents should be encouraged to maintain a balance between gaming and academic activities by following proper time management practices.
- Students should be motivated to engage in physical activities and outdoor games to reduce screen dependency
- Game developers can introduce features like screen-time reminders and usage limits to promote responsible gaming.

CONCLUSION

Mobile gaming plays a significant role in adolescents' lives, offering both benefits and challenges. While it supports entertainment and skill development, excessive use can negatively impact academic performance and personal well-being. Therefore, maintaining a balanced approach through proper guidance and self-discipline is essential to ensure positive outcomes.

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