



Research Article

The Impact of Online Mobile Games on Secondary and Higher Secondary Students in Shariatpur District

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Abstract

Online mobile gaming has emerged as a prevalent leisure activity among secondary and higher secondary students, attributable to swift improvements in digital technology and mobile internet accessibility. This study investigates the effects of online mobile gaming on students' academic performance, social conduct, and interpersonal relationships in Domshar Union in Shariatpur Zilla, Bangladesh. A quantitative research design utilized a semi-structured questionnaire to gather data from 100 students, which was subsequently analyzed using descriptive statistics and correlation analysis. The results indicate that action-based games are the most favored, with several pupils participating in extended daily gaming sessions. The study indicates a substantial correlation between conflicts in gaming communities and disputes among teammates, while other social factors, such as neighborhood impressions, significantly affect gaming experiences. Nonetheless, no substantial correlation was identified between educational achievement and gaming-related disputes, suggesting that social and environmental factors exert greater influence. The study underscores the intricate social ramifications of online mobile gaming and stresses the necessity for awareness initiatives and interventions to foster responsible gaming practices among students.

Keywords

Online Mobile Gaming, Academic Performance, Social Behavior, Interpersonal Relationships, Behavioral Impact.

1. Introduction

Due to the increased accessibility of smartphones and better internet connectivity, online mobile gaming has grown significantly worldwide. According to earlier research, students learning motivation, engagement, and participation in educational activities may be improved by mobile and game-based applications (Petrović et al., 2021; Fadda et al., 2022; Kao et al., 2023). Interactive learning experiences and cognitive engagement have been proven to be enhanced by game-based learning environments (Güler et al., 2022). Nevertheless, despite these advantages, researchers are becoming more concerned about the behavioral and societal effects of teens excessive online mobile gaming.

According to a number of international research, playing online mobile games frequently may lead to behavioral imbalance, less in-person interaction, and more peer conflict (Hou et al., 2022; Nicolaidou et al., 2023). According to McKee and Ntokos (2022), social identities and group memberships can be shaped by online gaming settings, which can occasionally result in rivalry and interpersonal conflict. The social behavior and interpersonal interaction aspects of online mobile gaming are still relatively understudied, especially among school-age adolescents, despite the fact that academic and psychological effects have drawn a lot of scholarly interest.

Online mobile gaming has been more popular among secondary and upper secondary students in South Asia. Research in the area primarily focuses on how well mobile games can enhance student engagement, language acquisition, and academic achievement (Ahmed, Widodo et al., 2022; Tan & Nurul-Asna, 2023). Although these studies show educational benefits, less focus has been placed on how gaming affects student conflict, peer relationships, and social interaction patterns. This restriction is more noticeable in developing nations because peer pressure, societal standards, and family expectations have a significant impact on teenage behavior. There is currently little empirical research on online mobile gaming in Bangladesh, especially in rural areas. There is a big knowledge vacuum regarding the social and relational effects of online mobile gaming because the majority of current research focuses on digital learning and technology adoption. The effects of gaming on students social identity formation, interpersonal connections, and peer group conflict dynamics are not well studied. In order to close this gap, the current study examines how social behavior and interpersonal relationships are affected by online mobile gaming among secondary and upper secondary students in Domshar Union, Shariatpur Zilla. The study examines how students social experiences and relationships are shaped by gaming-related interactions using Social Identity Theory and Conflict Theory.

1.1. Background of the Study

Online mobile gamings explosive rise has garnered a lot of scholarly attention lately, especially in the domains of digital pedagogy, learning motivation, and education. Academic engagement, motivation, and learning outcomes are all positively impacted by mobile and game-based learning applications, according to a large body of research (Kao et al., 2023; Güler et al., 2022; Fadda et al., 2022; Jarrah et al., 2022). Gamification and mobile learning tools have been shown to improve involvement, creativity, and cognitive performance in a variety of educational environments (Alam & Mohanty, 2023; Petrović et al., 2021).

Notwithstanding these conclusions, current research indicates a notable disparity in scholarly emphasis. The social, relational, and conflict-related aspects of online mobile gaming are usually ignored in favor of academic achievement, instructional efficacy, and learning outcomes. For example, studies by Song et al. (2023), Ahmed et al. (2022), and Kao et al. (2023) highlight learning benefits but offer little information about how gaming influences students interpersonal relationships or social behavior. Similar to this, experimental research and meta-analyses (Güler et al., 2022; Fadda et al., 2022) measure the educational advantages of extended mobile gaming without taking into account the wider societal ramifications. Even though some studies recognize behavioral or psychological issues, their reach is still quite small. Hou et al. (2022) look at online dangers and mental health problems related to mobile gaming, but they don't look at interpersonal interactions or social conflicts at the community level. Noting that current findings cannot be applied generally, McKee and Ntokos (2022) draw attention to engagement dynamics in gaming settings and urge more research across cultural contexts. Nicolaidou et al. (2023) discuss conflict in gaming environments, however they mostly concentrate on planned solutions rather than adolescent gamers inherent social issues. Furthermore, the literature as a whole clearly exhibits contextual constraints. Many studies have limited application to real-life social environments due to their reliance on small samples, brief research periods, or experimental settings (Song et al., 2023; Ebadi et al., 2023). Rural and developing areas, especially South Asian nations like Bangladesh, are underrepresented in research because the majority of it is carried out in developed or metropolitan educational contexts. Little is known about the social realities of pupils in rural areas, where peer pressure, local impact, and family expectations are significant factors.

As a result, there is a glaring study vacuum regarding the ways in which online mobile gaming affects interpersonal relationships, social behavior, and conflict patterns among Bangladeshi secondary and upper secondary students. The work currently in publication falls short in explaining how conflicts within gaming communities or among teammates are influenced by peer competitiveness, community impact, gaming-related identities, and environmental factors. This disparity emphasizes the necessity of a quantitative, context-specific study based on sociological theory.

A study was conducted to investigate the social effects of online mobile gaming among secondary and upper secondary students in Domshar Union, Shariatpur Zilla, in response to these constraints. The study aims to explain how group membership, competition, and power dynamics influence students gaming experiences and social interactions by utilizing Social Identity Theory and Conflict Theory. In addition to offering insights that can help parents, educators, and legislators encourage responsible and socially responsible gaming activities, this study attempts to give empirical data in an understudied field.

1.2. Problem of Study

The report highlights an escalating social issue linked to the swift rise of online mobile gaming among secondary and higher secondary pupils in Domshar Union. Despite the widespread accessibility and popularity of mobile gaming, there is a paucity of knowledge regarding its impact on students social conduct, interpersonal relationships, and patterns of conflict. The results demonstrate that excessive gaming, significant engagement in online forums, and financial outlay lead to disputes with family and peers. Simultaneously, current research in Bangladesh especially in rural regions has predominantly neglected these social and relational features, concentrating instead on educational or technological factors. The fundamental issue of the study resides in the absence of empirical, context-specific insights regarding the impact of online mobile gaming on students social interactions, conflict experiences, and overall social well-being, thereby complicating the formulation of effective guidance and intervention strategies.

1.3. Objective of the Study

- To know what types of online mobile games are popular among these students.
- To find out how many hours a day the students spend playing online mobile games.
- To explore the factors influencing the students to play online mobile games.
- To explore the conflicts that emerge from online mobile games.

2. Literature Review

(Kao et al., 2023) in their research “The study on designed gamified mobile learning model to assess students learning outcome of accounting education”. They found that the literature review discusses the value of gamification in education, with an emphasis on how it might enhance learning outcomes and student engagement in accounting education. However, social relationships and behavioral patterns were not explained.

(Song et al., 2023) in their study “Developing a Virtual Go mode on a mobile app to enhance primary students vocabulary learning engagement: an exploratory study”. Due to the studies brief duration and limited participant count, they disclosed that the results could not be broadly applied. In order to lend significant value to the discrepancy, the researcher uses a slightly larger sample.

(McKee & Ntokos, 2022) in their study “Online microlearning and student engagement in computer games higher education”. In order to better understand engagement dynamics, the authors underlined the need for additional study on video duration across various fields and cultural contexts. In addition, the researcher focused mostly on their social activities while applying research questions and gathering data at the local level.

(Alam & Mohanty, 2023) in their study “Learning on the Move: A Pedagogical Framework for State-of-the-Art Mobile Learning”. They disclosed that the approach used smartphone interactions and animated avatars to increase student engagement and creativity throughout the learning process. Additionally, the researcher used a semi-structured questionnaire for the study, which yielded a wealth of data related to the social behavior and inclinations of online mobile game players.

(Hou et al., 2022) in their study “Childrens mobile-gaming preferences, online risks, and mental health”. They clarified that in order to find correlations between gaming habits, internet dangers, and emotional/behavioral issues, the methodology involved multiple logistic regression analysis. However, they did not investigate social facts and relationships, which is why further research is necessary.

(Güler et al., 2022) in their study “A meta-analysis of the impact of mobile learning on mathematics achievement”. They reported that, with an effect size of $g = 0.476$ and $p < .001$, the meta-analysis showed that mobile learning has a medium-level beneficial impact on students mathematical achievement. However, they did not provide an explanation for the social phenomenon that resulted from the influence of mobile internet users.

(Jarrah et al., 2022) in their study “Assessing the impact of digital games-based learning on students performance in learning fractions using (ABACUS) software application”. According to the study, students in the experimental group who were taught using digital games-based learning, or ABACUS performed better on post-tests than students in the

control group, who were taught using conventional methods. However, the researchers goal is to portray social truths that are fundamentally related to users of online mobile games.

(Ahmed, Sayed, et al., 2022) in their study “An Empirical Study on the Effects of Using Kahoot as a Game-Based Learning Tool on EFL Learners Vocabulary Recall and Retention”. According to the study, the two groups pretest results did not differ statistically significantly, suggesting that their vocabulary knowledge was comparable before the intervention. However, the goal of the study is to determine whether any online mobile game players have social relevance.

(Al-Razgan & M. Alotaibi, 2022) in their study “Integrating Mobile Games in Arabic Orthography Classrooms”. According to the study, there has been a general uptick in student motivation and involvement, which suggests that students are more involved in the learning process. Additionally, the social interactions of online mobile game players that are relevant to the researchers study were not depicted.

(Kai-Hsiang Yang et al., 2022) in their study “Promoting Students Math Learning Performance and Engagement: A Help-seeking Mech+C3:C18anism-based Mobile Gaming Approach”. To evaluate the efficacy of the mobile game-based learning strategy in an elementary school mathematics course, a quasi-experimental method was used. However, the researcher only used quantitative research in conjunction with descriptive study on secondary and upper secondary students, with the goal of using numbers to depict social facts related to online mobile games.

(Ahmed, Widodo, et al., 2022) in their study “Assessing the Effects of Gamification on Developing EFL Learners Idiomatic Knowledge: Do Attitudinal Factors Contribute to the Learning of the Idioms with the Game?”. The study used a quasi-experimental approach that collected data using both quantitative and qualitative techniques. Additionally, the researcher used a quantitative approach, which was a numerical examination of the data.

(Fadda et al., 2022) in their study “Effects of digital games on student motivation in mathematics: A meta - analysis in K - 12” . Seventy-two university students, ages 19 to 21, were specifically chosen from the University of Jordans humanities and scientific faculties. In contrast, 100 secondary and upper secondary pupils from a specific Shariatpur neighborhood participated in the researchers study.

(Petrović et al., 2021) in their study “Designing an extended smart classroom: An approach to game - based learning for IoT” . Through engaging and technologically advanced activities, the technique sought to improve learning outcomes and student assessment. However, the study wants to demonstrate how social activities and online mobile games are related.

(Ebadi et al., 2023) in their study “On the relationship between mobile-based extramural activities and vocabulary development of EFL learners: a mixed-method study”. It comprised a sample of sixty intermediate EFL learners from two language institutes, equally split between male and female students. However, the sample was drawn from secondary and upper secondary levels, and the researcher included 100 samples from various institutions.

(Żammit, 2022) in her study “Is mobile game-based learning effective for international adults learning Maltese?”. With a focus on international students taking part in the study, the questionnaire technique made it possible to gather perspectives from a broad audience. In order to demonstrate the impact of online mobile games, the researcher also conducted his study with secondary and upper secondary kids in the surrounding area.

(Ramírez-Donoso et al., 2023) in their study “Fostering the use of online learning resources: results of using a mobile collaboration tool based on gamification in a blended course”. One of the tools used to collect data is a questionnaire that focuses on the aspects of Team Dimensional Training (TDT) and consists of 15 Likert scale questions. However, the researcher employs a semi-structured inquiry approach with a 37-item questionnaire.

(Önal et al., 2022) in their study “The effect of SOS Table learning environment on mobile learning tools acceptance, motivation and mobile learning attitude in English language learning” . The study used a mixed method approach, gathering and analyzing both quantitative and qualitative data. However, the researcher employs a quantitative approach, presenting the results in numerical form.

(Tan & Nurul - Asna, 2023) in their study “Serious games for environmental education”. The study also identified knowledge gaps about the effects of serious games, especially with regard to the efficacy of publicly accessible games. However, the social difficulties are methodically avoided in this study. Further research covering social issues is required.

According to (Fadda et al., 2022) “Effects of digital games on student motivation in mathematics: A meta - analysis in K - 12” . The paper clearly identifies itself as a systematic review of the literature. Any descriptive literature review that the researcher uses adds a great deal of significance to the study.

(Malysheva et al., 2022) in their study “The effect of online learning in modern history education”. They emphasized that a survey was distributed to 623 history students and 29 faculty members in order to gather data on the methods used in teaching history. But in order to obtain more precise results, we shall take 100 histories.

(Herwin et al., 2022) in their research “Mobile Assessment to Improve Learning Motivation of Elementary School Students in Online Learning”. They state that 53 students were randomly selected from the sample of class V primary school students who were the study's subjects. Additionally, we select 100 secondary and upper secondary kids for our study.

(Ahmed et al., 2022) in their study “Investigating the Effect of Using Game-Based Learning on EFL Learners Motivation and Anxiety”. 58 intermediate EFL participants were divided into two groups: an experimental group (EG) and a control group (CG). However, for the quantitative approach, we wish to use a basic random sample.

(Almusharraf et al., 2023). In their research “Gender differences in utilizing a game-based approach within the EFL online classrooms”. The study used a t-test to analyze the data and determine whether the motivation and involvement levels of male and female students differed significantly. Nevertheless, additional findings, such as correlation, frequency distribution, and graph, are needed to improve the study.

(Nicolaidou et al., 2023) in their study “Developing Fact Finders: A Mobile Game for Overcoming Intractable Conflicts”. A 17-item survey on opinions of past conflicts and gameplay analytics, which included performance indicators and assessments of the reliability of the sources, made up the data sources. However, in order to get more data, the researcher uses a 37-item questionnaire to compare the relationships between students and society.

3. Theoretical Framework

Henri Tajfel and John Turner's Social Identity Theory (SIT) describes how people construct their self-concept through group memberships, differentiating between in-groups and out-groups, which can result in bias and conflict as well as group cohesion. Strong in-group identification can lead to favoritism toward teammates and conflicts with rival players or groups, which can occasionally be exacerbated by outside influences like disparaging remarks from non-players. In online gaming environments, players frequently construct identities around teams, games, or communities. By highlighting power disparities, rivalry, and unequal access to resources, conflict theory—which has its roots in the theories of Karl Marx and other scholars further explains these dynamics. Conflicts in online gaming communities can result from structural elements like game design and community rules, as well as from competition for status, prizes, or recognition. Together, these theories shed light on how identity formation, rivalry, and inequality fuel disagreements in online gaming and emphasize the necessity of inclusive behaviors and just systems to foster constructive social interaction and lessen conflict.

4. Methodology

This study used a descriptive research approach to analyze the patterns of online mobile game usage among secondary and higher secondary students, concentrating on game kinds, influencing variables, expenditure behavior, and social interaction. A quantitative research methodology was employed via a survey questionnaire. The research was carried out in Domshar Union in Shariatpur district, involving students from various villages due to their significant participation in mobile gaming. The whole population consisted of around 1,000 pupils, from which a sample of 100 respondents was obtained using simple random sampling. Primary data were obtained by individual semi-structured inter-

views administered using Google Forms, with responses collected from April 18 to April 22, 2024. Data were inputted and analyzed utilizing Excel and SPSS, with the results conveyed through tables, charts, and diagrams accompanied by lucid explanations for enhanced comprehension.

5. Results

Table 1: Respondent Education Level * Gender Cross Tabulation

Respondent Education Level - Gender Cross Tabulation					
			Gender		Total
			Male	Female	
Respondent education level	Secondary Level	Count	68	4	72
		% within Respondent education level	94.4%	5.6%	100.0%
		% within Gender	73.9%	50.0%	72.0%
	Higher Secondary Level	Count	24	4	28
		% within Respondent education level	85.7%	14.3%	100.0%
		% within Gender	26.1%	50.0%	28.0%
Total		Count	92	8	100
		% within Respondent education level	92.0%	8.0%	100.0%
		% within Gender	100.0%	100.0%	100.0%

Source: Field Survey, 2024

Table 1 shows the cross tabulation that reveals a significant gender disparity among respondents, with 92% identifying as male and merely 8% as female. At the secondary level, males constitute 94.4%, and girls represent merely 5.6%. At the higher secondary level, male dominance persists at 85.7%, while the female fraction marginally rises to 14.3%. Among gender categories, the majority of males (73.9%) are at the secondary level, while females are evenly divided between secondary and higher secondary levels (50% each). Males predominantly occupy lower educational tiers, but females, despite their smaller numbers, exhibit a more equitable distribution.

Table 2: Respondents Spend Time and Money for Playing Mobile Games

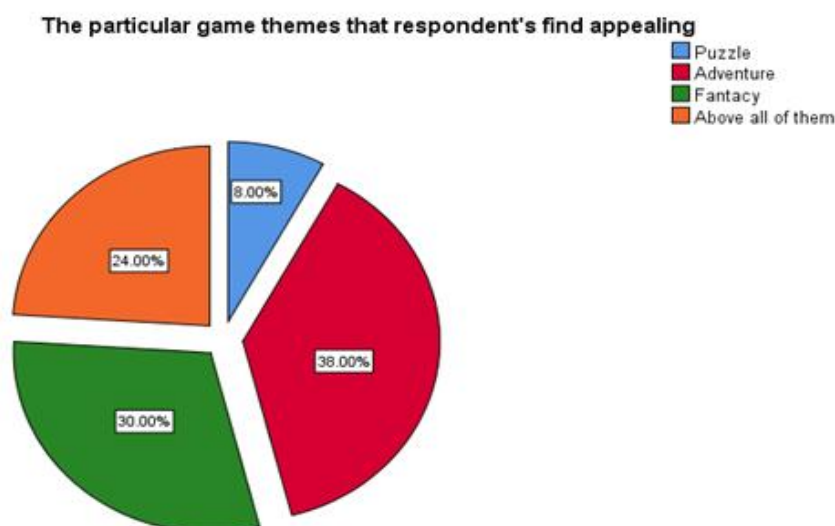
Questions	Responses	Secondary (N)	Higher Secondary (N)	Total (N)	Percentage(%)
Respondents spend time per day for playing online mobile games	1-2	10	1	11	11%
	3-4	50	10	60	60%
	5-6	11	17	28	28%
	7-8	1	0	1	1%
Total		72	28	100	100%
Respondents spend money for playing online mobile games	No money	6	4	10	10%
	0-500	21	6	27	27%
	600-1000	28	8	36	36%
	Above 1000	17	10	27	27%
Total		72	28	100	100%

Source: Field Survey, 2024

The table 2 illustrates the time and financial expenditure of respondents on online mobile games, categorized by their educational attainment. Sixty percent of respondents engage in gaming for 3–4 hours everyday, followed by 28% who allocate 5–6 hours, although a minor fraction dedicates 1–2 hours (11%) or 7–8 hours (1%). Secondary level respond-

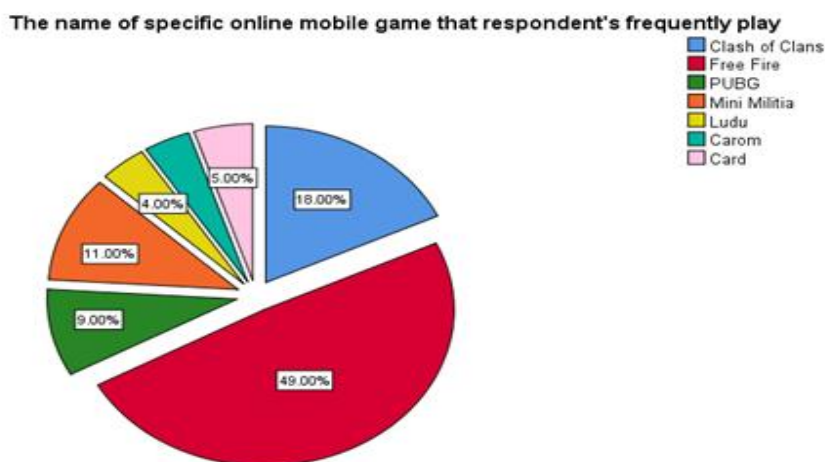
ers predominate throughout all temporal groups in education. Concerning financial expenditure, merely 10% abstain from spending on games, whilst the majority allocate funds over various ranges: 27% expend 0–500 BDT, 36% allocate 600–1000 BDT, and an additional 27% invest over 1000 BDT. The data reveal that the majority of respondents exhibit moderate to high engagement in mobile gaming, both in terms of time and financial investment, with secondary-level students constituting the greatest demographic of active players.

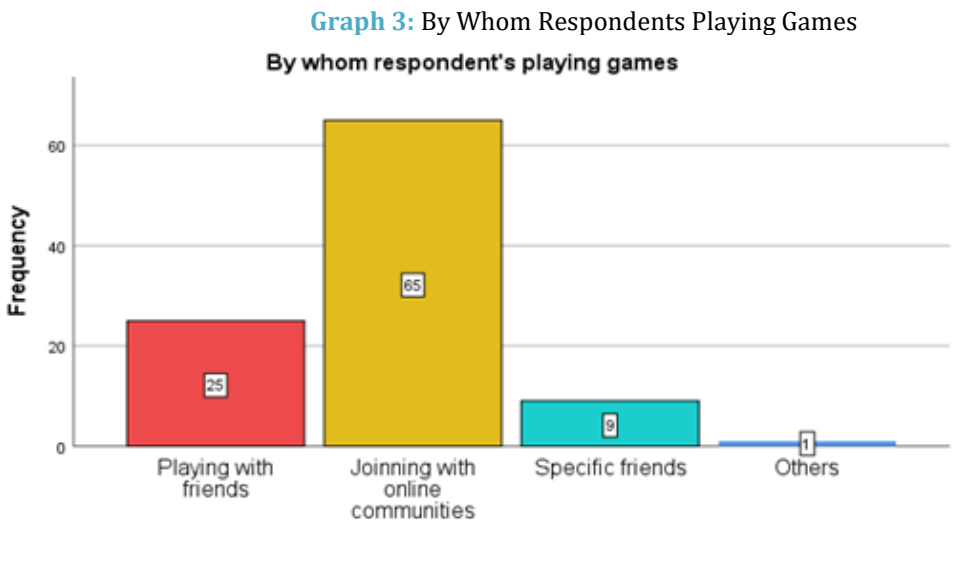
Graph 1: The Particular Game Themes That Respondents Find Appealing



The pie chart illustrates the preferences of respondents on various game topics. The predominant theme is adventure, selected by 38% of participants, signifying a robust inclination towards action-driven and exploratory gameplay. This is succeeded by fantasy at 30%, indicating that a substantial segment of players appreciates imaginative and fictional environments. Simultaneously, 24% of respondents chose above all of them, indicating their willingness to engage with several genres rather than confining themselves to a singular theme. Conversely, puzzle games are the least favored, with merely 8% of respondents expressing a preference for them. The results indicate a pronounced preference for adventure and fantasy themes, whereas puzzle games have comparatively low appeal among the participants.

Graph 2: The Name of Specific Online Mobile Games That Respondents Frequently Play





The bar chart indicates that the predominant preference among respondents is to engage in gaming through online communities, with 65 persons selecting this choice, establishing it as the most prevalent way of gaming interaction. In contrast, 25 respondents indicated engaging in gaming with friends, suggesting that although social gaming inside personal networks is prevalent, it is less favored than extensive online participation. Nine respondents exhibit a preference for engaging with particular friends, indicating a more restricted or selective engagement pattern. Only one responder chose alternate styles of play, indicating that such possibilities are nearly negligible. The findings indicate a pronounced preference for online community-based gaming compared to more intimate or smaller group interactions.

Table 3: Correlations

		which factors influence you to play online mobile games?	Do you play online mobile games for the sense of competition and achievement?	Can you achieve goals or earn rewards within the game?
which factors influence you to play online mobile games?	Pearson Correlation	1	.110	.155
	Sig. (2-tailed)		.277	.124
	N	100	100	100
Do you play online mobile games for the sense of competition and achievement?	Pearson Correlation	.110	1	.418**
	Sig. (2-tailed)	.277		.000
	N	100	100	100
Can you achieve goals or earn rewards within the game?	Pearson Correlation	.155	.418**	1
	Sig. (2-tailed)	.124	.000	
	N	100	100	100

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Field Survey,2024

The correlation results indicate that general influencing factors exhibit weak and non-significant relationships with both competition/achievement motivation ($r = .110$, $p = .277$) and goal/reward achievement ($r = .155$, $p = .124$), suggesting minimal association between external influences and these motivations. There exists a moderate and statistically significant positive correlation between competition/achievement and goal/reward attainment ($r = .418$, $p < .01$), indicating that players motivated by competition are more inclined to prioritize obtaining rewards and accomplishing goals. Intrinsic incentives are more significantly associated with gaming behavior than external influences.

Table 4: ANOVA

			Sum of Squares	df	Mean Square	F	Sig.
Ever had a conflict with your parents over the cost of playing online mobile games?	Between Groups	(Combined)	2.432	1	2.432	26.845	.000
		Linear Term	2.432	1	2.432	26.845	.000
		Unweighted Weighted	2.432	1	2.432	26.845	.000
	Within Groups		8.878	98	.091		
	Total		11.310	99			
Ever had a conflict with your friends over the cost of playing online mobile games?	Between Groups	(Combined)	2.432	1	2.432	26.845	.000
		Linear Term	2.432	1	2.432	26.845	.000
		Unweighted Weighted	2.432	1	2.432	26.845	.000
	Within Groups		8.878	98	.091		
	Total		11.310	99			

Source: Field Survey,2024

The ANOVA results indicate that the expense associated with playing online mobile games significantly influences confrontations with both parents and friends. In both instances, the between-groups variance ($F = 26.845$, $p < 0.001$) significantly exceeds the within-groups variation, signifying a substantial and significant disparity across groups. This indicates that respondents with varying spending-related characteristics also considerably varied in their experience of conflict over gaming expenses. The uniform outcomes for both parents and friends indicate that money elements of gaming frequently incite problems in familial and peer relationships.

Table 5: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Have you faced conflict with your family because of playing online mobile games?	100	1.05	.219	.022
Have you faced conflicts with your friends or peers because of playing games?	100	1.07	.256	.026

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Have you faced conflict with your family because of playing online mobile games?	47.936	99	.000	1.050	1.01	1.09
Have you faced conflicts with your friends or peers because of playing games?	41.726	99	.000	1.070	1.02	1.12

Source: Field Survey,2024

The one-sample statistics and test findings indicate that respondents considerably encounter conflicts arising from online mobile gaming. The average values for family conflict ($M = 1.05$) and peer conflict ($M = 1.07$) suggest that the majority of respondents reported experiencing conflict, with minimal variation in replies. The one-sample t-test results indicate highly significant values for both variables (family: $t = 47.936$, $p < 0.001$; peers: $t = 41.726$, $p < 0.001$), signifying that the observed means are considerably different from the null hypothesis value of zero. The confidence ranges for both variables exclude 0, thereby reinforcing statistical significance. The data suggest a significant correlation between playing online mobile games and conflicts within families and among peers.

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.212 ^a	.045	.035	.296

a. Predictors: (Constant), which factors influence you to play online mobile games?

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.403	1	.403	4.598	.034 ^b
	Residual	8.597	98	.088		
	Total	9.000	99			

a. Dependent Variable: Do you play online mobile games out of daily challenge or as a form of distr1?

b. Predictors: (Constant), which factors influence you to play online mobile games?

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.905	.096		9.437	.000
	which factors influence you to play online mobile games?	.062	.029	.212	2.144	.034

a. Dependent Variable: Do you play online mobile games out of daily challenge or as a form of distr1?

Source: Field Survey, 2024

The regression results indicate that the factors affecting respondents engagement in online mobile games exert a minor yet statistically significant influence on their motivation to play for daily challenges or as a means of distraction. The model summary reveals a poor correlation between variables ($R = 0.212$) and accounts for merely 4.5% of the variance ($R^2 = 0.045$) in the dependent variable, indicating that the majority of the variance is attributable to factors not incorporated in the model. The ANOVA results indicate that the model is statistically significant ($F = 4.598$, $p = 0.034$), demonstrating that the association is not attributable to chance.

The coefficients table reveals that the predictor variable is significant ($B = 0.062$, $p = 0.034$), suggesting that an increase in influencing variables correlates with a minor rise in the likelihood of engaging in games for challenge or diversion. Overall, despite the effect being weak, the results indicate a positive and substantial correlation between influencing factors and gaming desire for distraction or challenge-oriented play.

6. Discussion

The survey shows that online mobile gaming has become a big part of the everyday life of the students of secondary and higher secondary level of Domshar Union, Shariatpur. Most of the respondents claimed they play online mobile games for three to six hours a day, indicating great engagement among youths. This finding is in line with previous research that identifies mobile gaming as one of the most popular forms of digital entertainment among the youth (Hou et al., 2022; Nicolaidou et al., 2023) and the increasing accessibility of smartphones and internet services in Bangladesh. Free Fire is the most popular game among the respondents with adventure and action games being the most popular games. The high positive association was also between the motivation directed to competition and achievement in the game (reaching goals and awards in the game). The findings point to competitive elements and reward mechanisms as strong determinants of student engagement in gaming. Similar findings are seen in studies on gamification that highlight the relevance of competition, success and reward systems for retaining user interest and motivation (Deterding et al., 2011; Hamari et al., 2014). It appears that the gaming behaviour of the respondents is primarily motivated by internal goals of competitiveness and achievement.

Another important finding is that most of the respondents preferred to participate in the online gaming communities than with the friends or close acquaintances alone. The findings show that online gaming contexts have become important settings for adolescent social interaction. This is described by Social Identity Theory, which claims that membership to a group gives a sense of belonging. Online gamers are usually members of teams, clans or groups of players and build a common sense of identity. Such connections to the group may lead to more collaboration and togetherness

within teams but also to more disagreement and conflict with opposing players or groups. This is consistent with the high association between conflict among teammates and conflict inside gaming groups.

The study also indicated that online mobile gaming was associated with interpersonal conflicts among students. Respondents mentioned several disputes with family members and classmates around gaming. The ANOVA results in particular demonstrate that the costs of gaming are an essential part of the conflicts with parents and friends. The study suggests the social consequences of money engagement in games. In many families in Bangladesh, especially in rural regions, parents tend to spend more on schooling and home needs than on enjoyment. Online gaming fees could be another bone of contention between students and families. Peers can also be a problem with spending habits and competitive play.

These findings can also be understood through Conflict Theory which is founded on the idea of competition for valuable resources, status and opportunity. Online gaming is competitive for rewards, ranks and achievements and at times is the source of disagreements among gamers. And then there's the cost of gaming, which can be a regular source of dispute amongst families and friends. The findings suggest that social interactions within gaming contexts and economic issues outside of gaming contexts effect debates about gaming.

Notably, the level of education was not significantly associated with gaming-related conflicts. So the major reason for such disputes is not the question of whether the student is studying at the level of secondary or higher school. Instead, the experience of the game, social bonds and money matters seem to have a greater impact on conflicts. This study builds on previous research which has highlighted the importance of social environment and interpersonal relationships in the understanding of gaming behaviour (McKee & Ntokos, 2022).

Statistics show that the Internet-based mobile gaming is more of a social phenomenon affecting the interpersonal connections and social interactions of the youth than a leisure activity overall. The current study adds to the existing literature by providing empirical evidence from a rural Bangladeshi setting that has been overlooked in academic research. The results also support the relevance of the Social Identity Theory and the Conflict Theory in explaining how group belonging, competition and money spent on gaming influence students' social experiences. The findings point to the need for enhanced understanding among parents, instructors and students regarding the relevance of acceptable gaming practices and the social consequences of excessive or conflict-generating gaming activities.

7. Conclusion and Recommendation

The study's findings indicate that online mobile gaming has grown exceedingly common among secondary and higher secondary students in Domshar Union, with the majority of respondents participating for several hours each day and expending a significant amount of money on games. Adventure and action-oriented games, especially Free Fire, prevail among student's interests, with engagement mostly influenced by online communities rather than intimate personal networks. The statistical research indicates that gaming behavior is predominantly shaped by intrinsic motives, including competitiveness, achievement, and reward systems, rather than external influences. The data unequivocally demonstrate that online mobile gaming fosters interpersonal disputes, particularly between families and peer groups, concerning financial expenditures and in-game interactions. The lack of a substantial correlation between educational attainment and gaming-related conflict indicates that these issues are more intricately associated with social and environmental factors than with academic background. The study concludes that online mobile gaming significantly contributes to student's social engagement and entertainment, yet it also presents considerable social challenges, underscoring the necessity for awareness, responsible gaming practices, and supportive interventions to mitigate adverse social effects.

7.1. Recommendation

The study's findings provide numerous practical strategies to mitigate the adverse effects of online mobile gaming while preserving its beneficial elements.

First, Awareness initiatives should be implemented for students, parents, and educators to foster ethical gaming practices, encompassing time management and regulated expenditure. Educational institutions can significantly contribute by incorporating advice sessions or counselling services that focus on gaming behavior, conflict resolution, and foster-

ing good social interactions. Parents ought to be urged to oversee their children's gaming duration and expenditures, while also fostering open dialogue to mitigate familial disputes about gaming.

Additional, developers and legislators ought to foster ethical gaming environments by reducing elements that incentivize excessive expenditure and detrimental competition. Given that peer and community interactions significantly impact gaming experiences, it is imperative to cultivate pleasant online communities and mitigate toxic conduct. Subsequently, additional research should be undertaken with larger and more heterogeneous samples to enhance comprehension of long-term social and behavioral effects, particularly in rural settings such as Domshar Union.

Declarations

Author(s) Contributions

Md. Uzzol Khan: Formal Regionalization Methodology & Analysis, Software, LISA Analysis, Recommendation, Writing – Original Draft. **Md. Ujjal Ali:** Conceptualization, Functional analysis, Writing – Original Draft, Methodology, Software, Data Curation, Visualization.

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Conflict of Interest

The authors declares no conflict of interest related to this research work.

Competing Interest

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