Correlation of Sociality in Multiplayer Online Games and Game Experience among Gamers in Bansalan Davao del Sur

Anave Castillo[1], Karl James Molde[1], Anjo Ubat[1], Christian Jay Calaylay[1], Valbin Albino[1], Kristel Angela Cartin[1], Jhon Brian Cantil[2]

[1]*BS Information Technology, St. Mary's College of BansalanInc.,*
[2]*Program Head, Bachelor of Science in Information Technology, St. Mary's College of Bansalan Inc,*

Abstract: **Diverse sources have argued that sociality in any setting affects the experiential functioning of gamers. This correlational study's primary purpose was to examine the substantial correlation between sociality in multiplayer online games and gamer experience in Bansalan, Davao del Sur. This research included two modified questionnaires for data gathering. Through the Google Forms software, the survey was conducted digitally to one hundred Banasalan residents. A statistician analyzed and presented the collected data using four statistical methods: relative frequency, weighted mean, analysis of variance, and Pearson's correlation coefficient. The researchers provided and elaborated on the analyzed data in a succinct way. According to the survey findings, the degree of sociality in multiplayer online games is moderate, and there is a substantial correlation between sociality and gaming experience. Thus, there is a strong relationship between sociality and gaming enjoyment.**

Keywords**: Correlational Research, Sociality in Multiplayer Online Games and game Experience among gamers**

I. INTRODUCTION

A. Background of the Study

The expansion of the internet has significantly altered our everyday life. This rise has specifically contributed to the development of online gaming. Online gaming is one of the most popular types of entertainment in the contemporary world, particularly among adolescents. It brings them joy and alleviates their tension. These games are played online, and users may join to multiplayers immediately. In Bansalan, Davao del Sur, it has become one of the most popular kinds of amusement among young people. Consequently, almost everyone is curious. They acquire an addiction to video games and spend more time playing. By playing online games, you may communicate with individuals from different walks of life. However, playing on it may have an influence on it.

According to study, there are two sorts of social conduct in gaming: interpersonally harmful antisocial behavior and prosocial activity (which is interpersonally constructive). Bullying is seen as an antisocial activity, while bullying intervention is viewed as a prosocial action. In contrast, academic interest is motivated by emotional and cognitive interests. Emotional interest is the set of factors that motivate students to immerse themselves in a topic or lesson due to their enthusiasm, whereas cognitive interest is the set of factors that motivate students to immerse themselves in a subject or course due to their clear structural understanding of the content [1]. A research was undertaken internationally to evaluate academic interest, engagement, and accomplishment in connection to sociality in multiplayer online games, as well as the educational potential of such games. It examined the significant impacts of online games on the sociability and collaboration abilities of pupils. The study then analyzed the relationship between such talents and academic success. Furthermore, the same research found that when students were exposed to online multiplayer games, their levels of interest, motivation, engagement, and learning performance rose [2]. Similarly, according to a second research, academic stakeholders have incorporated the advantages of multiplayer online games into the academe in order to increase students' enthusiasm for studying.

In the Philippines, video games such as multiplayer online games have been shown to influence students' academic attitudes. It has been discovered that when students are more inclined to play computer-mediated games, they lose interest in reading books, listening to teachers' instructions, and socializing with their classmates. This is because the psychological effects they get from socializing with other gamers on the virtual platform influence their attitudes in the real world. If they had a negative social environment while playing, they tend to absorb that experience and act it out in the real world, such as at school [3].

Locally, many students at Bansalan, Davao del sur enjoy playing multiplayer online games, especially during the pandemic, as it serves as a coping mechanism for the various stresses they face. As researchers, we are interested in learning about their perceptions and attitudes toward sociality in multiplayer online games, as well as how this sociality affects their academic interest as students. Furthermore, no research study on the subject has ever been conducted locally, emphasizing the importance of the study.

B. Theoretical framework

The independent variable, Sociality in Multiplayer Online Games, is based on Festinger, Pepitone, and

Newcomb's Deindividuation Theory [4]. The dependent variable, Academic Interest, on the other hand, is based on Bronfenbrenner's Theory of the Ecology of Human Development [5]. These theories demonstrate the potential interconnection of the variables in this study. Hughes defines online games as "social interaction in a virtual group" [6]. According to the Deindividuation Theory, individuals in a group may lose their sense of identity, resulting in decreased self-awareness and self-regulation [7]. This theory backs up the idea of Sociality in Multiplayer Online Games by implying that gamers are more likely to have experience. The idea that they developed is that the "Theories Multiplayer gamer experience" and this is the idea that we tend to utilized in this research. This theory was written to present basis towards the Multiplayer games and games experience among gamers in Bansalan

Hughes defines online games as "social interaction in a virtual group" [6]. Bandura, on the other hand, coined the term "Power of Humanization" to explain how a person can have more humane actions if he has positive perceptions of the group in which he is immersed. For example, one study discovered that if a gamer likes the performance of his teammate's or opponent's avatar in a game, he has a more acceptable social interaction with the player who uses that avatar. As a result, according to the theory, sociality in multiplayer online games can be positive or negative [8]. Furthermore, the variable Academic Interest of this study is anchored to Bronfenbrenner's Theory of the Ecology of Human Development.

C. Conceptual Framework

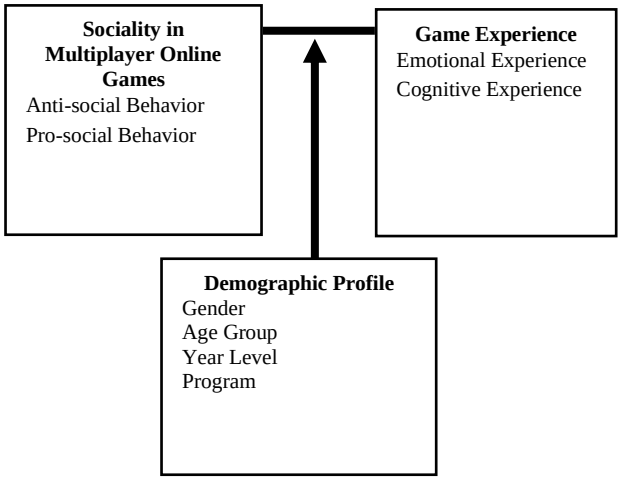

Figure 1. Conceptual Framework of the study

Figure 1 above presents the conceptual model that will be used in this study. The study's key variables and their corresponding indicators are shown in the conceptual framework above. It depicts the independent and dependent variables' potential linkage with the moderating variables.

Sociality in Multiplayer Online Games is the independent variable for the researchers in this study. Anti-social Behavior and Pro-social Behavior are the two signs. Game Experience, on the other hand, is the dependent variable, with two indicators: Emotional Experience and Game Experience. Moreover, the Demographic Profile is a moderating variable with four indicators: Gender, Age Group, Year Level, and Program. This moderating variable's objective is to aid in the assessment of the relationship between sociality in multiplayer online games and game experience among players in Bansalan, Davao del Sur.

D. Research Questions

The goal of this study is to determine the extent to which sociality in multi-player online games influences gaming experience among players in Bansalan, Davao del Sur. This research aims to answer the following questions in particular:

RQ1. What is the profile of the respondents in terms of:

1.1 Gender
1.2 Age Group
1.3 Year Level
1.4 Program

RQ2**.** What is the level of sociality in multi-player online games among players in Bansalan, Davao del sur in term of:

2.1Anti-Social Behavior
2.2 Pro-Social Behavior

RQ3. What is the level of game experience among players in Bansalan, Davao del Sur in terms of:

3.1 Emotional Experience
3.2 Cognitive Experience

RQ4. Is there a significant difference in the level of sociality in multi-player online games among players in Bansalan, Dvao del Sur when grouped according to:

4.1 Gender
4.2 Age Group
4.3 Year Level
4.4 Program

RQ5**.** Is there a significant difference in the level of game experience among players in Bansalan, Davao del Sur when grouped according to:

5.1 Gender
5.2 Age Group
5.3 Year Level
5.4 Program

RQ6**.** Is there a significant correlation between the sociality in multi-player online games and academic experience among players in Bansalan, Davao del Sur?

Null Hypothesis

Ho1: There is no significant difference in the level of sociality in multi-player online games among Gamers in Bansalan, Davao del Sur.

Ho2: There is no significant difference in the level of game experience among Gamers in Bansalan, Davao del Sur.

Ho3: There is no significant correlation between the sociality in multi-player online games and Game experience among Gamers in Bansalan, Davao del Sur.

II. METHODOLOGY

A. Research Design

The descriptive correlational research approach will be used in this study, using modified questionnaires on Sociality in Multiplayer Online Games among Gamer Experience. According to Best Kahn (2006), quantitative approaches are used to describe what is, describing, documenting, analyzing, and interpreting existing conditions. It includes some kind of comparison or contrast and aims to identify links between existing non-manipulated data. It is largely focused with the present, yet it often examines previous experience and effects in relation to current problems. The primary goal of a correlational research is to discover the link between variables and the regression equation that may be utilized to generate population projections. And the association will be given a degree and a direction via statical analysis.

B. Research Locale

The study will be conducted in Bansalan, Davao del Sur that has 25 Barangays those are Alegre, Altavistta, Bitaug, Bonifacio, Buenavista, Darapuay, Dolo, Eman, Rizal, Anonang,Libertad, Linawan, Mabuhay, Mabunga, Marber Kinuskusan, Poblacion Uno and Dos, Newclarin, Santo Nino, Sibayan. Tinongtongan, Tubod, Union, Managa and has the population of 62,737.

C. Participants of the Study

Gamers from Bansalan, Davao del Sur, took part in this study. The researchers will apply the following inclusion criteria when selecting samples:

1. In Bansalan, Davao del Sur, the respondent must be a gamer.
2. A multiplayer online gamer must be the respondent.
3. In terms of ethical considerations, the respondent must be willing to engage in this study.

D. Sampling Techniques

This study's samples will be determined using the approach of convenient sampling. Convenience sampling is a sort of non-probability sampling in which the sample is selected from the nearest portion of the population. In this research, the overall sample size will rely only on the number of respondents to the online survey. This study's samples will be selected utilizing the approach of voluntary response sampling. Voluntary Response Sampling is a non-probability sampling technique that employs a sample of persons who have freely chosen to be included in the sample group. In this research, the overall sample size will rely only on the number of respondents to the online survey. In addition, at least 77 individuals have responded.

E. Statistical Treatments

The following statistical instruments will be utilized to perform this research study:

Relative Frequency comes first. This instrument will be used to characterize the respondents' Gender, Age Group, Year Level, and Program, as specified in subproblem 1.

Weighted Average This instrument will be used to characterize the degrees of Sociality in Multiplayer Online Games and Game Experience outlined in subproblems 2 and 3.

Analysis of Variability This instrument will be used to characterize the major variations between the degrees of Sociality in Multiplayer Online Games and Game Experience when assessed by Gender, Age Group, Year Level, and Program, as described in subquestions 4 and 5.

Four. Pearson, R. This instrument will be utilized to explain the substantial association between Sociality in Multiplayer Online Games and Game Experience, as described in subproblem 6.

F. Data Collection and Procedures

The following measures will be taken by the researchers of this current study in order to perform the study on the Sociality in Multiplayer Online Games and Game Experience among Gamers in Bansalan, Davao del Sur:

1. A consent letter will be issued to the respondents, requesting permission to perform the research.
2. Once authorization is given, the researcher will begin distributing the questionnaire to responders using the Google Forms system.
3. The collected data will be counted, calculated, and analyzed using the proper statistical techniques.

G. Research Instrument

The questionnaires on Sociality on Multiplayer Online Best kahn(2006) research of among Gamer Experience were utilized in this study. The items were changed to accommodate the investigation. The indicators were carefully created and enhanced after speaking with a consultant.

The initial draft of the research instruments was given to the research advisor for feedback and ideas on how to enhance it, with modifications incorporated and integrated. Before it was ready for distribution and administration, final adjustments were made by adding the adviser's errors, comments, and recommendations.

H. Ethical Considerations

The primary concerns of this study are senior students who have encountered sociality in multiplayer online games, which can negatively impact their gaming experience. The

researchers will not force anyone to answer or evaluate the questionnaire during the survey.

The researchers will conduct an online survey to distribute the questionnaire in order to adhere to the COVID-19 health protocols, specifically the avoidance of crowded places. To ensure the protection of the participant's profile, all responses will be kept confidential, and all statements to be cited will be coded.

III. RESULTS AND DISCUSSIONS

Table I. Level Of Sociality

Sociality	Mean	SD	Descriptive Interpretation
Anti-social	3.516	0.976	High
Pro-social	4.104	0.761	High
Overall	3.810	0.661	High

The average scores for the anti-social and pro-social indicators of sociality are 3.516, and 4.104, respectively. Furthermore, their standard deviations are 0.976, and 0.761. Hence, both indicators of the sociality are high. This indicates that the level of sociality for the participants are oftentimes manifested.

Table II. Level Of Game Experience

Game Experience	Mean	SD	Descriptive Interpretation
Emotional	4.104	0.761	High
Cognitive	3.597	0.863	High
Overall	3.590	0.749	

The average scores for the emotional and cognitive indicators of game experience are 4.104, and 3.597, respectively. Furthermore, their standard deviations are 0.761, and 0.863. Hence, both indicators of the game experience are high. This indicates that the level of game experience for the participants are oftentimes manifested.

Table Iii A. Significant Differences

Sociality	t	p-value	REMARKS
Anti-social	1.199	0.233	NOT SIGNIFICANT
Pro-social	-0.786	0.434	NOT SIGNIFICANT

Based on the independent t-test, The p-values for the anti-social and pro-social indicators of sociality are 0.233, and 0.434. This means there is no significant difference on the respective average indicators of sociality in terms of gender.

Table Iii B. Significant Difference

Game Experience	t	p-value	REMARKS
Emotional	0.814	0.418	NOT SIGNIFICANT
Cognitive	1.765	0.081	NOT SIGNIFICANT

The p-values for the emotional and cognitive indicators of game experience are 0.418, and 0.081. This means there is no significant difference on the respective average indicators of game experience in terms of gender.

TABLE IV A. Significant Differences in terms of Year level Anti-social

Source	Sum of Squares	dF	Mean Squares	F	p-value	REMARKS
Treatment	1.881	3	0.627	0.652	0.584	NOT SIGNIFICANT
Error	92.374	96	0.962			
Total	94.255	99				

Pro-social

Source	Sum of Squares	dF	Mean Squares	F	p-value	REMARKS
Treatment	5.191	3	31.730	3.187	0.027	SIGNIFICANT
Error	52.127	96	0.543			
Total	57.318	99				

Based on the Analysis on Variance (ANOVA), The p-values for the anti-social and pro-social indicators of sociality are 0.584, and 0.027. Between the two indicators, the average of anti-social score indicator has no significant difference in terms of the year levels. However, the average of pro-social score indicator has significant difference in terms of the year levels

Emotional

Source	Sum of Squares	dF	Mean Squares	F	p-value	REMARKS
Treatment	2.063	3	0.688	1.307	0.277	NOT SIGNIFICANT
Error	50.531	96	0.526			
Total	52.594	99				

Cognitive

Source	Sum of Squares	dF	Mean Squares	F	p-value	REMARKS
Treatment	2.643	3	0.881	1.190	0.318	NOT SIGNIFICANT
Error	71.047	96	0.740			
Total	73.69	99				

The p-values for the emotional and cognitive indicators of game experience are 0.277, and 0.318. This means there is no significant difference on the respective average indicators of game experience in terms of year level.

TABLE IV B. Significant Differences in terms of Course Anti-social

Source	Sum of Squares	dF	Mean Squares	F	p-value	REMARKS
Treatment	5.058	4	1.264	1.347	0.258	SIGNIFICANT
Error	89.197	95	0.939			
Total	94.255	99				

Pro-social

Source	Sum of Squares	dF	Mean Squares	F	p-value	REMARKS
Treatment	2.306	4	0.576	0.995	0.414	SIGNIFICANT
Error	55.013	95	0.578			
Total	57.319	99				

The p-values for the anti-social and pro-social indicators of sociality are 0.258, and 0.414. This means there is no significant difference on the respective average indicators of sociality in terms of courses.

Emotional

Source	Sum of Squares	dF	Mean Squares	F	p-value	REMARKS
Treatment	3.461	4	0.865	1.673	0.163	SIGNIFICANT
Error	49.133	95	0.517			
Total	52.594	99				

Cognitive

Source	Sum of Squares	dF	Mean Squares	F	p-value	REMARKS
Treatment	4.912	4	1.228	1.696	0.157	SIGNIFICANT
Error	68.778	95	0.724			
Total	73.69	99				

The p-values for the emotional and cognitive indicators of game experience are 0.163, and 0.157. This means there is no significant difference on the respective average indicators of game experience in terms of courses.

Table V. Relationship

Variables: Anti-Social	Pearson r	p-value	REMARKS
Emotional	0.484	<0.001	SIGNIFICANT
Cognitive	0.483	<0.001	SIGNIFICANT

The p-values for the relationship in emotional and cognitive indicators of game experience in terms of anti-social sociality are both <0.001. This indicates that there is a significant relationship between the anti-social sociality and the indicators of game experience.

Since there is relationship between the two, the strength of relationship between the anti-social of sociality and emotional of game experience is moderate since the Pearson r is 0.484. This implies that there is positive moderate correlation between the anti-social sociality and emotional game experience.

On other hand, the strength of relationship between the anti-social of sociality and cognitive of game experience is moderate since the Pearson r is 0.483. This implies that there is positive moderate correlation between the anti-social sociality and cognitive game experience.

Variables: Anti-Social	Pearson r	p-value	REMARKS
Emotional	0.496	<0.001	SIGNIFICANT
Cognitive	0.446	<0.001	SIGNIFICANT
Variables	Pearson r	p-value	REMARKS
Sociality and Game Experience	0.666	<0.001	SIGNIFICANT

The p-values for the relationship in emotional and cognitive indicators of game experience in terms of pro-social sociality are both <0.001. This indicates that there is a significant relationship between the pro-social sociality and the indicators of game experience.

Since there is relationship between the two, the strength of relationship between the pro-social of sociality and emotional of game experience is moderate since the Pearson r is 0.496. This implies that there is positive moderate correlation between the pro-social sociality and emotional game experience.

On other hand, the strength of relationship between the pro-social of sociality and cognitive of game experience is moderate since the Pearson r is 0.446. This implies that there is positive moderate correlation between the anti-social sociality and cognitive game experience.

Overall, there is significant relationship between sociality and game experience. Hence, the strength of relationship between two is high since the Pearson r value is 0.666. Hence, there is high correlation between the sociality and game experience.

IV. CONCLUSIONS AND RECOMMENDATION

Conclusions

Based on the findings of this research study, the following conclusions are drawn:

1. The results were able to show the demographic profile of the respondents in terms of gender, age group, year level, and program. Importantly, there are 100 who have responded.
2. The results were able to show a moderate level of Sociality in Multiplayer Online Games and Game Experience Among Gamers in Bansalan.
3. The results were able to show a high level of Game Experience Bansalan.
4. The results were able to show no significant difference on the level of Sociality in Multiplayer Online Games according to gender, age group, year level.
5. The results were able to show no significant difference on the level of Game Experience according to gender, age group, year level and SHS program.
6. The results were able to show a weak positive relationship between awareness to e-learnig and Gaming Experience among Gamers in Bansalan.

Recommendations

With the incorporation of this study's results, the following suggestions have been formulated.

1. Parents may tighten their restrictions on their children's online gaming in order to reduce the likelihood that their children would acquire antisocial tendencies from online games.

Academic authorities might hold seminars to educate students about the good and bad effects of multiplayer online gaming.

Those gamers who are identified as intellectually impaired may get counseling from guidance counselors.

Teachers might create strategies that affect students' emotional and cognitive interests to boost their overall academic engagement.

Future academics may perform further studies focusing on the social aspect of online multiplayer games. This will increase the understanding of what other elements influence sociality or interpersonal relationships in the virtual playroom and how these aspects impact the academic performance of the gamer as a whole.

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REFERENCES

[1]. B. Sung, E.J. Vanman, N. Hartley, and I. Pau, "The Emotion of Interest and its relevance to Consumer Psychology and Behavior".AustralasianMarketing Journal (AMJ), pp. 337-343, 2006.

[2]. E. Chan, and P. Vorderer, Massively Multiplayer Online Games, Playing video games: Motives, responses, and consequences, 2006, pp. 77–88

[3]. Clay, Z., Ravaux, L., de Waal, F. B. M., & Zuberbühler, K. Bonobos (*Pan paniscus*). vocally protest against violations of social expectations. *Journal of Comparative Psychology, 130*(1), pp.44–54, 2006.

[4]. C. Hughes, B.J GrifFin, and E.L. Worthington, "A measure of social behavior in team-based, multiplayer online games: The Sociality in Multiplayer Online Games (SMOG) scale". Computers in Human Behavior, pp.386-395, 2006.

[5]. S. Ali, Z. Haider, F. Munir, H. Khan, and A. Ahmed, "Factors Contribution to the Student Academic Performance: A case Study of Islamia University Sub-Campus". American Journal of Educational Research, pp. 283-289, 2013.

[6]. J. Blascovich, "Social influence within immersive virtual environments," in The Social Life of Avatars, ed. R. Schroeder (London: Springer London), pp. 127-145, 2003.

[7]. A. Giddens, "Modernity and self-identity: Self and society in the late modern age". Stanford university press, 1991.

[8]. Halbrook, Y. J., O'Donnell, A. T., & Msetfi,

[9]. R. M. . When and How Video Games Can Be Good: A Review of the Positive Effects of Video Games on Well-Being. Perspectives on.