THE EFFECT OF ONLINE GAMES TO THE ACADEMIC PERFORMANCE OF THE SENIOR HIGH SCHOOL STUDENTS

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Abstract

The research conducted is about the Effect of Playing Online Games on the Academic Learning of Senior High School in Sta Monica National High School, Sta. Monica, Hagonoy, Bulacan. The researcher aims to find out if online games have a significant effect on their studies and help students, parents, teachers, stakeholders, researchers and our society from the results of this study.

According to the study conducted by the researcher, it was found that playing online games among Senior High School students does not have much effect on their learning in important subjects such as English, Science and Mathematics. It appears from the data found in the research that despite Senior High School students playing online games they still get satisfactory grades and it can also be seen that most students only use playing online games so that they can relax and use it in a positive way. The senior High School students of Sta. Monica National High School used the Online Games to prevent stress in their everyday life and to communicate and express themselves even in the virtual world. Many students who are not intelligent and athletic used the virtual world created by the online games for them to feel superior and strong even in their weak physical condition. The study will be the baseline and can be uses by future researchers about the effect of Online Games not only in SHS students but in other group of people in society.

Keywords: Online Games, Academic Performance, School, Students, Academic Learning.

Introduction

The world continues to go through rapid development, economic growth, as a result of globalization in our environment, one of which is the presence of modern technological equipment that we use in our daily lives. Since the computer was invented in the 19th century by an Englishman, Charles Babbage, and mobile telephones or what we call cellphones in the 1940s, it has continued with many developments and changes until the present time.

Currently, computers and cellphones are not only used for communication and work, instead they are more often used to play online games that are entertaining, interesting or sometimes addictive to our minds that simply consume our time and time. Online computer games started in the 1970s and the first example of online games was the MUD. Over time it was followed by new online games such as Island of Kesmai (1984), Flight Simulator Air Warrior (1987), Nexus: The Kingdom of the Wind (1996) and Conterstrike (1999). With the acceleration of the Internet connection and the availability of new technologies in computers and cellphones such as connecting to wifi and social media, people are more interested in playing online games due to the availability of better graphics and realistic design of characters and characters. place where they play [1].

Currently, the new online games that people are obsessed with are MOBA (Multiple Online Battle Arena) as well as Dota and Dota2 which are very popular among young people and even among the elderly and some other examples of this are the game Warcraft, Defense of the Ancients, Heroes of the Storm and Smite.

There are also online games that need to be connected to fast internet or wifi where hundreds or thousands of online gamers can play at the same time wherever they are in the world such as MMO (Massively multiple online games), MMORPG (Massively multiplayer online role-playing games), MMORTS (Massively multiplayer online real-time strategy), MMOFPS (Massively multiplayer online first-person shooter) and MMOSG (Massively multiplayer online game). Currently more men play online games with 52% of the total 100 percent and only 48% for women who play online games.

Currently, the latest online games that young people and even adults are obsessed with is the game Mobile Legends: Bang Bang or ML as most people call it, it is an online game that is called MOBA or Multiplayer Online Battle Arena where many can fight. player simultaneously, it is developed and produced by the company Moonton [2],

Mobile Legends or ML is a game where once the battle starts you can't stop it, so there are recorded cases of teachers scolding students because they blame their teammates when they lost their battle. This was proven in an episode from the program of GMA 7, Kapuso mo Jessica Soho (KMJS), which

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went viral or became popular on social media in an incident where a child pranked his Senior Citizen mother who is a Physical Education teacher (P.E) who does not want to be disturbed while he is playing Mobile Legends even though the son says that he needs to watch his cooking. The said video went viral or became popular because it only shows that there is no choice of age, gender or any profession in life that sometimes even prefers playing online games over the role in real life [3].

According to the report of the Online Games Market Forecast, its revenue reached U.$ 35 Billion worldwide for the year 2017 with a huge increase since 2011 when the revenue reached only U.$ 19 Billion worldwide. Mobile Legends which is currently the most popular online game in the Philippines has earned over U.$ 200 Million in revenue in its first year since it was released by Moonton in 2016 and is expected to continue to grow in the years to come due to continued patronage not only of students but people. Due to the large revenue of playing online games, the researcher realized that there are many young people and students not only in elementary school, junior high school if not most of them are at the senior high school level. With online games that can be played using various social networking sites and with the help of the internet, it has also been found that students neglect other aspects of their lives. So, the researcher wants to use Online Games to find out and determine the attitude of senior high school students because they want to know in a scientific way if it is true that most of Students today are addicted to playing online games excessively [4-8].

Excessive playing or obsession with online games is also considered a vice like alcohol, cigarettes, gambling, etc. for students, which not only affects their social aspect, but is also sometimes put in jeopardy because they forget them and neglect the responsibilities of real life. Not only does the researcher of this study seek the effects of online games on aspects of students' lives, the researcher also seeks to inform or inform young people, students, parents and others about the importance of socializing with others and the responsibility of each one despite the use of technologies in our lives [9].

Statement of the Problem
This study aims to find out the effect of online gaming in the study of Senior High Schools in Sta. Monica, Hagonoy, Bulacan, the study seeks answers to the following questions:
1. How often do senior high school students use online gaming?
2. What is the profile of senior high school in academic studies based on the following lessons:
2.1 English
2.2 Science; and

2.3 Math
3. What are the effects of online gaming on academic learning in senior high school students?
4. Based on the outcome of the study, what implications can be drawn?

Methodology
This chapter presents the research methods, the study respondents, the research instruments and the method of data collection and data processing.

Research Design
This study used a descriptive-correlational method to reveal the effects of playing online games on the academic learning of Senior High School students. All the respondents in the study were asked to use questionnaires using the survey to find out their profiles, length of playing online games per day, amount spent playing online games per day and its effect on their academic performance. study.

Respondent of the Study
The respondents or research participants are 100% (178/178) students of Grade 11 in the Senior High School Department of Sta. Monica National High School from the strands of General Academic Strand (GAS) and Technical Vocational Livelihood (TVL). The participants were taken with the appropriate data with the help of their teacher advisors and the recommendation of the SHS guidance counselor to conduct the research successfully. The study respondents consisted of 45 females and 133 males. The teacher advisors of each group will endorse students whose studies are affected by playing online games, causing them to sometimes run away, be absent or lack focus while they are studying.

Assessment, Presentation and Analysis of Data
This chapter presents, analyzes and interprets the data gathered in this study to determine the effects of online gaming on the academic learning of senior high school students. For clarity of presentation and consistency in discussion, the data are presented in accordance with the order of the questions raised in chapter 1.

Length of time spend by the Senior High Students in playing Online Games
The length of time spent playing online games also affects the lives of online gamers. According to the study conducted by CINT in 2017-2018 the average time spent by gamers in the Philippines is only 3 hours (180 minutes) per week or only 25.71 minutes per day. This is lower than the American Medical Association's recommendation that the right time to play online games is up to 2 hours (120 minutes) per day or the equivalent of 14 hours (420 minutes) per week. The American Medical Association also states that an individual is at the level of addiction to

playing online games if he plays 6-12 hours (360 minutes-720 minutes) per day or the equivalent of 42-84 hours (2,520 minutes- 5,040 minutes). Tencent stated that young people aged 13-18 years old usually play online games between 9pm at night because this is the time when they have come home from their school, done their homework for tomorrow and they just pass the time to sleep. Tencent also stated that students who are very addicted to playing online games do not choose the time when they play online games, they will play no matter where they are or even right inside the school as long as they have of opportunity.

Profile of the Senior High School Students based on the following lessons
What is the profile of senior high school in academic studies based on the following lessons: 2.1 English (Oral Communication); 2.2 Science (Earth and Life Science); and 2.3 Mathematics (General Mathematics).

Table 1: Subject Wise Distribution

SUBJECT	90-100	85-89	80-84	75-79	70-74	TOTAL
Mathematics (General Math)	39 (22.0%)	62 (34.9%)	55 (30.9%)	22 (12.2%)	0	178 (100%)
English (Oral Communication)	28 (15.6%)	66 (37.1%)	66 (37.1%)	18 (10.2%)	0	178 (100%)
Science (Earth and Life Science)	19 (10.7%)	66 (37.1%)	58 (32.7%)	35 (19.7%)	0	178 (100%)

The data obtained by the researcher in the ongoing study on the effect of playing online games on the academic studies of students of Senior High Schools in Sta. Monica National High School in the subjects of English, Science and Mathematics. In English subjects (Oral Communication) it can be seen that the largest share of students with 37.1 percent of the total number of respondents obtained grades between 80-84 and 85-89 with an interpretation of Satisfactory and Very Satisfactory followed by 15.6 percent of SHS students who obtained grades between 90-100 with an interpretation of Outstanding, and finally students who obtained grades between 75-79 with the interpretation of Fairly Satisfactory it has a total percentage of 10.2 percent.

The data obtained by the researcher among the students of Senior High School in the Science Subject (Earth and Life Science and Physical Science) can be observed that the largest part or equal to 37.1 percent are the students who obtained the grades between 85-89 with the interpretation of Very Satisfactory, this is followed by students with 32.7 percent who obtained grades between 80-84 with the interpretation of Satisfactory, followed by those who -SHS students with 19.7 percent of the total number who obtained grades between 75-79 with the interpretation of Fairly Satisfactory and lastly the smallest share or 10.7 percent of students obtained high grades of 90-100 or with an interpretation of Outstanding.

The last subject is Mathematics (General Math), which has the largest share of students who obtained grades 85-89 with the interpretation of Very Satisfactory, it consists of 34.9 percent of the total number of respondents in Subjects Mathematics, followed by 30.9 percent of students who earned grades between 80-84 or with a corresponding interpretation of Satisfactory, followed by 22.0 percent of students who earned grades between 90-100 or with the interpretation of Outstanding, and finally the smallest number is the 12.2 percent of SHS students who achieved grades between 75-79 or with the equivalent of Fairly Satisfactory.

Table 2: Mathematics

Indicators	Frequency	Percentage
90 - 100 (Outstanding)	39	22.0
85 - 89 (Very Satisfactory)	62	34.9

80 - 84 (Satisfactory)	55	30.9
75 - 79 (Fairly Satisfactory)	22	12.2
74 and below (Poor)	0	0.0
Average	**178**	**100.0**

Mean = 85.0 (Very Satisfactory)
Std. Deviation = 4.982

The total grade of Senior High School students as seen in Table 2 in the Subject Mathematics obtained a mean of 85.0 (Very Satisfactory) and Std. Deviation = 4.982, which if analyzed there are still more students who get high scores than those who are lower it just means that the effect is not big and that playing Online Games may have helped them students in Mathematics subject because many students got high marks.

Table 3: English

Indicators	Frequency	Percentage
90 – 100 (Outstanding)	28	15.6
85 – 89 (Very Satisfactory)	66	37.1
80 – 84 (Satisfactory)	66	37.1
75 – 79 Fairly Satisfactory)	18	10.2
74 and below (Poor)	0	0.0
Average	**178**	**100.0**

Mean = 85.0 (Very Satisfactory)
Std. Deviation = 4.100

Table 4: The total grade of the students in Senior High School can be seen in Table 3 which aims to measure the total grade in the English subject, it can be noted that like the Mathematics subject, the marks obtained by the students in total are also satisfactory because it obtained a mean = 85.0 (Very Satisfactory), Std. Deviation = 4.100 which if analyzed does not have a big effect and may have helped the students playing Online Games in their English subject because more of them got high marks.

Table 4: Science

Indicators	Frequency	Percentage
90 – 100 (Outstanding)	19	10.7
85 – 89 (Very Satisfactory)	66	37.1
80 – 84 (Satisfactory)	58	32.7
75 – 79 Fairly Satisfactory)	35	19.7
74 and below (Poor)	0	0.0
Average	**178**	**100.0**

Mean = 84.0 (Satisfactory)
Std. Deviation = 4.351

It can be seen in Table 4 that the mean obtained by Senior High School students in the Science subject is lower than in Mathematics and English, but overall result it still obtained a positive result with a mean =84.0 (Satisfactory), Std. Deviation = 4.351 and if analyzed, there are still more students who get high marks in the Science subject, so playing Online Games may have helped the students.

Describing the Behavior of the Senior High School Students in Online Games
Table 5

Indicators	Mean	Interpretation
Do you often think about games even when your gaming gadgets/PC/mobile phone are far from you?	2.56	Satisfactory
Do you think you feel symptoms yourself when you are not able to play? (boredom, excitement etc.)	2.31	Fairly Satisfactory
Do you think you should increase your playing time to get your desired satisfaction?	2.27	Fairly Satisfactory
Have you tried to cut back on your gaming time or quit because it got out of control?	2.94	Satisfactory
Have you neglected your cctivities (work/social life/study) because of playing online games?	2.31	Fairly Satisfactory
Do you keep playing even though it's taking a toll on you? (having low grades, insomnia, being late for work, relationship problems etc.)	2.09	Fairly Satisfactory
Ever managed to hide or lie about the length of time you play?	2.38	Fairly Satisfactory
Have you used gaming as a way to cope with daily life stress and negative situations?	2.96	Satisfactory
Has your relationship, studies and work been affected by your excessive gaming?	2.30	Fairly Satisfactory
Average	**2.46**	**Fairly Satisfactory**

The table in Table 5 shows that there are five levels of behavior of Senior High School students regarding the effect of their playing Online Games affecting their daily life and their school studies. The second one with the lowest level that got a scale of 2.27 (fairly satisfactory) is the question in number three (3) which can be read from the question is, Do you think you should increase your playing time so that you can get the your desired satisfaction, which if analyzing the question is looking at the level of the respondents that they do not have enough time to play Online Games to be more happy, but most of the respondents that the time they allocate is enough to get the fun they seek in playing Online Games.

The one with the highest number is question number eight (8), Did you use a method to cope with daily life stress and negative situations? With a score of 2.96 (Satisfactory), which if analyzed the question is a positive way to help students escape their stress and problems in life by playing Online Games.

The third with the highest level got a mean of 2.30 (fairly satisfactory) which can be read in the ninth (9) question, Has your relationship, studies and work been affected because of your excessive gaming, which in the analysis of said question refers to the negative impact of excessive gaming because it affects the life of an individual in his relationship with his neighbor, social, family or love, as well as his studies at school and in his work. It can be seen that there are fewer SHS students who neglect their relationships, studies and work just in exchange for playing Online Games.

The next and the fourth with the highest level is the question in number two (2) and it got a mean of 2.31 (fairly satisfactory) which reads in the question, Do you think you feel symptoms in yourself when you can't play? (boredom, excitement etc.) that in the analysis of the said question it refers to the negative way that an individual feels the symptom of boredom if he is not able to play Online Games, but there are still more of the research respondents who are able to control themselves and emotions if they are unable to play Online Games. The following also obtained the same mean in the second (2) question which has a mean of 2.31 (fairly satisfactory), which can be read in the fifth (5) question, Do you neglect your Activities (work/social/studying due to online games?), in analyzing the said question again it can be seen that the effect that the question wants to know from the respondents of the said research is negative but there are still fewer students who are allowed to neglect not only their education and work if not as well as their role in the society they live in.

The seventh highest is the question in number seven (7), which obtained a mean of 2.38 (fairly satisfactory), which can be read in the said question, Did you manage to hide or lie about the length of time you played, that if we reanalyzing the question, this is a negative effect because the study wants to know if the respondents are able to hide or may

eventually lie and deceive himself in order to hide from others the true length of time he spends in playing Online Games. Again, fewer SHS students are able to hide from others the true length of time they spend playing Online Games.

The second highest mean obtained is question number one (1), which obtained a mean of 2.56 (Satisfactory), which can be read in the question, Do you often think about games even when your gadgets are far away from you gaming (PC/mobile phone?), which can be seen in the question through analysis that has an effect on the mind of the respondent who wants to know because it affects not only their body and role for daily life if not as well as their thoughts and emotions. It can be seen from their answers that many students still think about playing Online Games especially if they don't hold their gadgets to play Online Games. The one with the lowest score was question number six (6), Do you still continue your gambling even though it is harming you?

Table 6: Regression analysis of Online Games in Academic Performance on Mathematics

Variables	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	5.317	0.196		27.148	0.000
Online Games	0.661	0.076	0.55	8.736	0.000

R-squared = .302

F-value = 76.311

p-value = .000

alpha = 0.05

alpha = 0.05

Impact on Academic Learning of Senior High School Students in Mathematics Subject
Table 6 shows the results of the regression analysis on the effect of Online Games on the Academic Learning of Senior High School Students in the English Subject where it can be seen in the Coefficients B (Online Games) 0.661 that said result has no significant o significant effect of playing online games on Senior High School students in the Mathematics subject which can also be seen at alpha=0.05 which says that playing Online Games has no significant effect on the Math subject. It can also be said that more students prefer to study hard than spend their time playing Online Games because most of the students scored high marks in Mathematics subject.

Table 7: Regression analysis of Online Games in Academic Performance on English

Variables	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	5.093	0.183		27.763	0.000
Online Games	0.599	0.071	0.537	8.443	0.000

R-squared = .288

F-value = 71.276

p-value = .000

alpha = 0.05

Impact on Academic Learning of Senior High School Students on English Subject
Table 7 shows the results of the regression analysis on the effect of Online Games on the Academic Learning of Senior High School Students in the English Subject which can be seen in the Coefficients B (Online Games) 0.599 which can be seen in the result that there is no significant effect playing online games in the English subject, and also see at alpha=0.05 that playing Online Games did not have a significant effect on the English subject. It can also be said according to the analysis of the obtained results that there are still more students in Senior High School who prefer to study hard than to

spend time playing Online Games because there are more students who have obtained high marks in English subject.

Table 8: Regression analysis of Online Games in Academic Performance on Science

Variables	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	4.561	0.208		21.955	0.000
Online Games	0.472	0.08	0.407	5.886	0.000

R-squared = .165

F-value = 34.648

p-value = .000

alpha = 0.05

Impact on Academic Learning of Senior High School Students on Science Subject

It can be seen in Table 8 that the Unstandardized Coefficients B is 0.472 that playing Online Games has no effect on the academic learning of Senior High School Students in the Science subject. It can also be noted that alpha=0.05 which means that playing Online Games has no significant effect on the Science subject. From the analysis it can be said that there are more students who prefer to study hard than to waste time playing Online Games because there are still many students who get high marks in science subject.

Conclusion

Based on the results and discussions, the following conclusions were made:

1. The Frequency and percentage profile of the learners in relation to academic performance in Science, English, and Math can be gleaned as the majority of the learners were outstanding in Math and satisfactory in Science and English. The majority of the academic performance was rated as outstanding and satisfactory, and only 10% fall below the passing marks.
2. There is no significant difference in the importance of the use of translanguaging as gleaned from the assessment of educators and learners. Additionally, the teacher's use of native language in the classroom, including the use of Tagalog in studying English, revealed no significant difference.
3. There is a positive statistical correlation between translanguaging and the academic performance in Math and Science of learners, while the data revealed that there is no significant correlation between academic performance in English and translanguaging.

Conflict of Interest

There is no conflict of interest by the author in this manuscript.

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