

Engaging Students through Board Games: Measuring Its Effectiveness on Academic Performance

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Abstract- Students' academic performance has various predictors. It is affected by so many factors. As the Department of Education aims to develop citizens who are holistically developed, which in a point is reflected by their academic performance. This study aimed to determine the effectiveness of engaging student through board games on their academic performance. The research used a quasi-experimental approach. There were 44 students on the control group and 43 students on the experimental group. The total population of the two groups was used to be part of the study. Data were collected and treated using mean and t-test to determine the difference on the academic performance of the two groups. Results revealed that the experimental group who was exposed to the board games have higher academic performance as reflected in their mean. Moreover, it is also evident in the findings that there is a significant difference in the academic performance of the control and experimental group. The study recommends to engage students in board games as part of improving their vocabulary bank to increase their academic performance, while considering that the vocabulary must be words that they will encounter in their future lessons.

Index Terms- vocabulary bank, academic performance, board game, effectiveness.

I. INTRODUCTION

A great number of research shows that the academic performance of students can be improved through innovative teaching strategies and other kinds of innovation (Adunola, 2011; Ayeni, 2011).

One of the main targets of the education system is to make sure that the students' will learn their competencies prescribed in the curriculum guide. However, it cannot be denied that there are students who are having difficulties in learning these competencies as reflected in their grade point average or academic performance.

The number of vocabularies a student knows will have an impact on his academic performance. As students have limited vocabularies, comprehension is being at risk. Individuals who have problems or limited vocabularies have weak language skills which often lead to limited education that a student may acquire.

Numerous studies have long pointed out that there is a relationship between vocabulary bank and students' academic

performance (Coyne, Simmons, & Kame'enui, 2004; Stahl & Nagy, 2006). Moreover, Beck and McKeown (2002) stated that a person's vocabulary level is viewed as a means of opening or closing access to information and helps define the success of the students in his academics. It only depicts that those who have limited vocabularies will have difficulties in improving their academic performance.

Based on the result of students' assessment in Masantol High School, there is a need to improve students' vocabulary bank. This issue of having limited vocabularies is alarming. According to Biemiller (2004), there is little opportunity for these students to close the vocabulary gap unless the schools provide useful vocabulary instruction.

According to MacKenty (2006), gaming activities tend to show learning benefits because of the active learning components that are present in each game. The findings was seconded by Schrand (2008). Games that bring out higher order thinking skills are becoming more popular, although more research and scientific assessment is necessary to measure their overall effectiveness.

It is well-known that students really enjoy games or activities beyond the normal classroom interaction. Gee (2003) encapsulated that good learning is also being reflected through games. Johnson (2006) praises games for their ability to help us "find order and meaning in the world and make decisions that create order." Additionally, Squire and Jenkins (2003) also promote games for good learning because they "encourage collaboration among players and thus provide a context for peer-to-peer teaching and for the emergence of learning communities." On the other hand, Okan (2003), using games may have negative effect as he stated that "meaningful learning may sometimes be difficult and requires cognitive and emotional effort... especially in the light of the fact that post-secondary education is not usually a fun undertaking." Students depend now on the innovative teaching strategies of the teacher, which is the used of board games.

It is in this light that the researcher decided to conduct a study on the effectiveness of engaging students through board games on the academic performance of Grade 8 Students.

Framework

The study is anchored in the theory of Lev Vygotsky. In his theory, he cited that cognitive development posits that

information from the external world is transformed and internalized through language. Children at play are making sense of the world through a process of "inner speech" - that is, they are often talking out loud to themselves (Child Development Media, 2015).

Vygotsky assumes cognitive development varies across cultures, whereas Piaget states cognitive development is mostly universal across cultures.

The study is delimited on Measuring the Effectiveness of Engaging Students through Board Games on their Academic Performance.

Statement of the Problem

Specifically, the researcher sought to answer the following questions:

- 1.What is the academic performance of the control and experimental group as reflected in their pretest?
2. What is the academic performance of the control and experimental group as reflected in their posttest?
3. Is there significant difference between the academic performance of the control and experimental group?
4. Based on the findings, what may be suggested?

Hypothesis

There is no significant difference between the academic performance of the control and experimental group.

II. METHODOLOGY

The researcher used the quasi-experimental approach in which experimental group and control group would be part of the study. The control group was exposed to normal classroom interaction, while the experimental group would be exposed to board games while learning. The experimental group was exposed in board games throughout one grading period to make sure that there would be enough and adequate for the exposure to the board games.

Consensus is elusive when it comes to figuring out exactly what it takes to improve our nation’s public schools. When the quest is to ensure that our children achieve academically, there just aren’t many certainties. Except one: The quality of teaching matters (Partee, 2012), which is reflected by the strategies that the teachers use. In this study, the used of board games to increase the students’ academic performance is the innovative strategy of the researcher.

Respondents

The researchers collected the school records of the students and consolidated their grades and group the students heterogeneously to make sure that all sections are equally divided.

As part of the study, the researchers used control and experimental group. The students in the control group and experimental group are reflected in Table 1.

Table 1.Respondents of the Study

Control Group			Experimental Group		
Male	Female	Total	Male	Female	Total
21	20	41	19	21	40
ACADEMIC PERFORMANCE			ACADEMIC PERFORMANCE		
75% to 78%			75% to 78%		

As shown in Table 1, students are well distributed to have fairness in the result of the study.

Instruments

The researcher exposed the experimental group through board games such as magic square and crosswords. After the exposure, the effectiveness of the board games would be measured. In terms of assessment, the standardized test was used in this study.

Data Analysis

The data gathered through the test were classified, organized, tallied and tabulated. These were treated with the use of frequency distribution and mean. The data to answer specific problems were treated as follows:

For the result of the academic performance, the raw score and the mean were collected, and to measure the difference between the academic performance of the control and experimental group, t-test was applied with 0.05 level of significance.

III. RESULTS AND DISCUSSION

The researcher utilized the quasi-experimental type of research using experimental and control group with the same level of academic performance to make sure that the result of the research would be valid and reliable.

Result of Pretest

Table 2.Pretest

Group	Mean
Control	11.93
Experimental	12.03
t Stat	-0.388191801
t Critical	1.992543495

Findings revealed that on the administration of pretest, the control group garnered a mean of 11.93, while the experimental group has mean of 12.03. Basing on the result, there is a difference of .10 on their mean. Using the t-test, it showed that there is no significant difference between their pretest, which made the two groups qualified for the quasi-experimental research.

Result of Posttest

Table 3. Posttest

Group	Mean
Control	22.13
Experimental	35.30
t Stat	-13.22265779
t Critical	1.992997126

It is glaring from the table that in terms of mean, control group has a mean of 22.13, while the experimental group garnered a mean of 35.20. Considering the gap on their mean, it shows that the experimental group has a higher academic performance as reflected in their posttest. Additionally, using the t-test, it shows that there is a significant difference between the academic performance of the control and experimental group. Table 3 reflects that t Critical (1.992997126) is lower than the t-stat (-13.22265779). Additionally, it only shows that engaging students through the use of Board Games has positive effects on the academic performance of students.

Conclusions and Recommendations

The study used a quasi-experimental approach with control and experimental group to measure the effectiveness of engaging students through board games on their academic performance. Findings reveal that after the engagement in board games, the academic performance of the experimental group is higher compare with control group.

Moreover, using t-test, it further shows that there is a significant difference between the academic performance of the control and experimental group. It further shows that engaging students through board games has a positive effect on their academic performance.

Based on the findings, the following recommendations are formulated:

1. Board games can be used as tool to improve the academic performance of students through increasing their vocabulary bank.
2. Teachers should find more ways to improve students' academic performance through various innovative strategies.
3. School administrators should invest in assisting teachers to produce aids or innovation that will improve students' academic performance.

4. Words to be presented must come from their future lessons to make sure that the students will encounter the words.
5. Further research for this study should be conducted.

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