

SCHOOLS DIVISION OFFICE OF NAVOTAS CITY

Bagumbayan Elementary School Compound

M. Naval St., Sipac-Almacen, Navotas City

Telephone Number: 83327764/83555032/82755239/83327985/

Website: depednavotas.ph / Email: navotas.city@deped.gov.ph / Facebook: DepEd Division of City Schools, Navotas

THE EFFECTS OF GAME -BASED LEARNING IN MATHEMATICS TO THE EMOTIONS AND ACHIEVEMENT OF SELECTED GRADE FOUR LEARNERS OF WAWA ELEMENTARY SCHOOL

ABSTRACT

This study presents the positive effect of game-based learning to the academic performance of the learners through online learning. The researchers made use of descriptive and survey method. The participants in the study were 30 grade four pupils who were randomly chosen and assigned as Group 1: Blended (Online and Modular) and Group 2: Modular (Printed). Pre-test was given through game application and printed module. Post-test was also given to pupils to determine what they have learned. Test Scores of both groups were recorded and analyzed and compared through weighted mean. Based on the data gathered, learners who make use of Quizziz as a form of their activities and assessment were more motivated to attend their classes. Furthermore, the efficacy of their interest on learning the Math subject was increased as shown by the pretest and post test result as they used the game-based learning. There was also a significant change observed in their emotional state as determined by their responses on the survey. Considering these, it was concluded that using game-based learning can be an effective tool in ensuring engagement and mastery of lesson while promoting a positive influence on learners' emotions.

Key Concepts: Game Based Learning, Online Learning

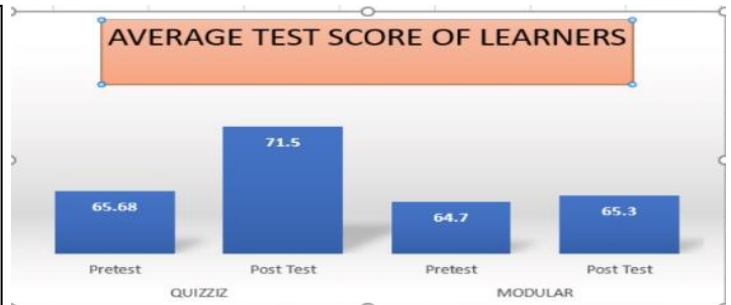
INTRODUCTION

Mathematics is a hard subject for most of elementary learners. Participation during every class session becomes harder if they lack interest in pursuing the subject. Most find mathematical problems mind blowing thus resulting to their low concentration and performance.

As reflected in the result of the Pretest taken by our learners for SY 2021-2022, the mastery level of grade four learners of Wawa Elementary School in Mathematics was 65.68 which was below the 75 % targeted level of mastery for academic subjects. This result prompted the researchers to find a way to alleviate the mastery level of pupils in Mathematics.

A study suggested that game-based learning promises to diversify education, increase students' interest and motivation, and offer positive and effective learning experiences. Especially digital game-based learning (DGBL) is considered an effective educational tool for improving education in classrooms of the future. (Lara Bertram 2019) Gaming is used for more than just entertainment, it is created for a primary purpose - to educate the user (Petkov & Rogers, 2011, p. 9).

The study above encouraged the researchers to utilize game-based learning application as means in addressing the aforementioned problem.



CONCLUSION

The research suggests that using game-based learning can be an effective tool in ensuring engagement and mastery of lesson while promoting a positive influence on learners' emotions. Since they are happier, they become more participative and focused in accomplishing learning tasks, thus increase in their performance is achieved.

RECOMMENDATIONS

The researchers recommend the use of game-based learning activities with other subjects such as English and Science to pose interactive and fun learning sessions.

STATEMENT OF THE PROBLEM

The purpose of this study is to investigate the effects of game-based learning application to the emotions and achievement of grade four learners in Wawa Elementary School.

METHODOLOGY

This study used descriptive and survey method. The 30 respondents will be divided into two groups: Group 1: Blended (Online and Modular) and Group 2: Modular (Printed). Pre-test will be given through game application and printed module. Post-test will be given to pupils to determine what they have learned. Test Scores of both groups will be recorded and analyzed through weighted mean.

RESULTS AND DISCUSSIONS

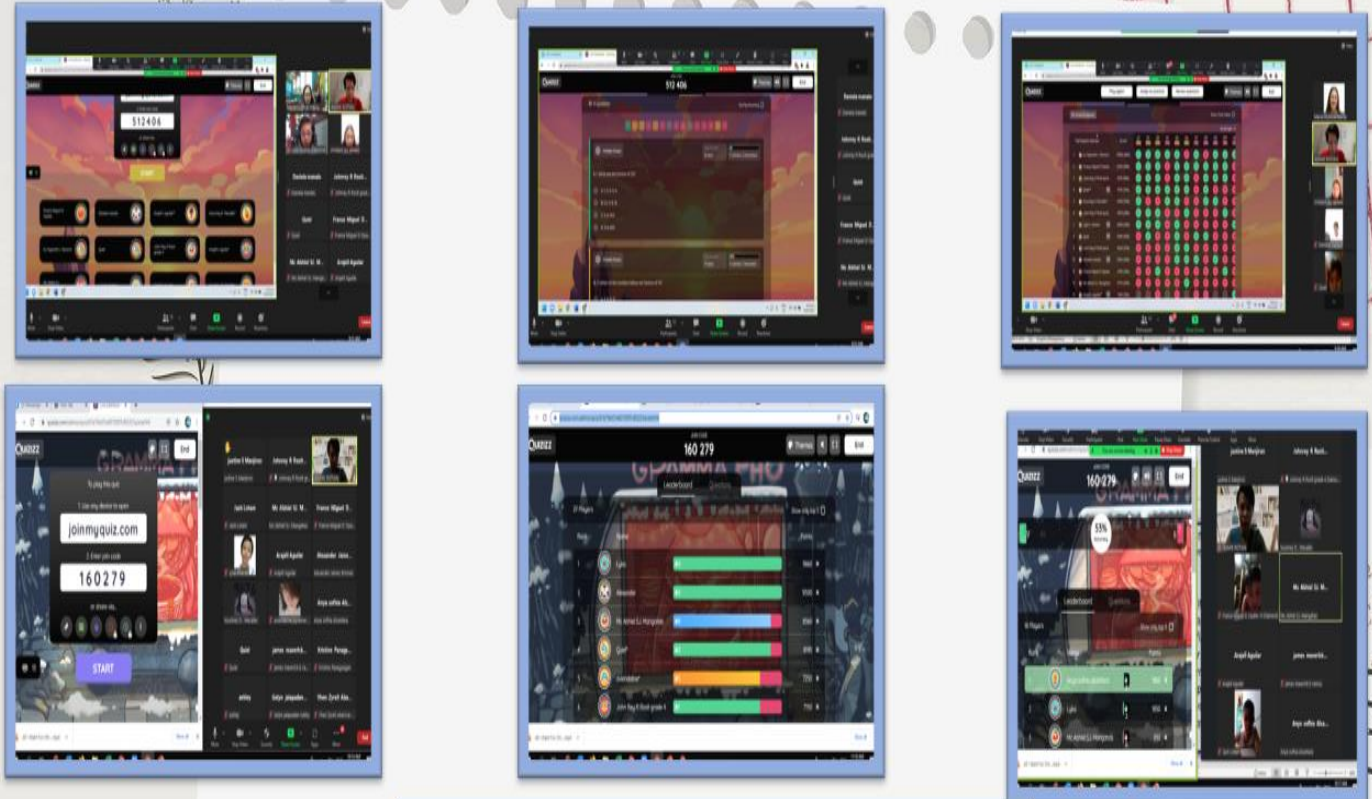
The results show that learners who make use of Quizziz as a form of their activities and assessment were more motivated to attend their classes. Furthermore, the efficacy of their interest on learning the Math subject was increased as shown by the pretest and post test result as they used the game-based learning. There is a significant change observed in their emotional state. They feel happier using online game-based learning activities, as reflected on their responses on the survey. This encouraged them to be more active in participating in their online engagements.

REFLECTION

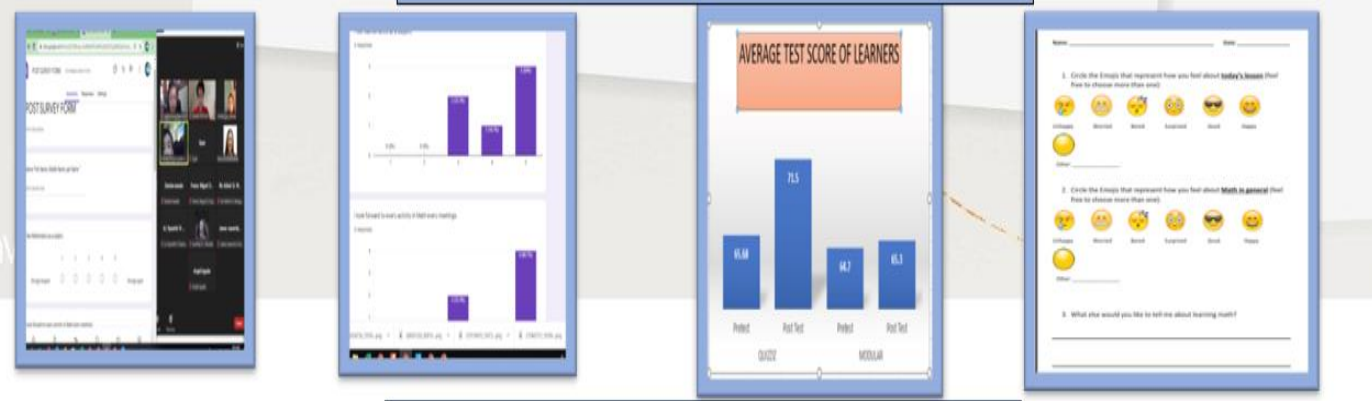
Since the onset of pandemic has posted may problems in encouraging online learners to actively engage in their classes, the use of gaming apps such as Quizziz will be very helpful. Finding other applications other than this can be help reciprocate their initial aversion to math and will be lessened throughout the course. Increased self-esteem posted by enjoyable activities in their lessons will improve their academic achievements.

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Game-Based Online Activities



Survey and Test Results

Submitted by:

M. Febria

MARIA VICTORIA C. FEBRIA

J. Rotian

JEAMIE R. ROTIAN

C. Pelaez

CRISTALYN JOY M. PELAEZ

Researcher / Wawa Elementary School

Approved:

A. Roque

MR. ALEJANDRO Q. ROQUE
Principal-WES

