USE OF GAME-BASED ACTIVITIES TOWARDS IMPROVING STUDENTS' PERFORMANCE IN MATHEMATICS

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ABSTRACT

Mathematics deals with numerical values, data, symbols, and shapes. The discipline encompasses a myriad of sub-disciplines that have been taught in academic institutions nowadays. A variety of teaching strategies have been used however failed in the long run. In this study, the researcher compared the non-Game based activities and Game-based activities methods of teaching and find the success of these two approaches to improving student performance in General Mathematics especially in the topics function and their graphs. The experimental design was used. The researcher utilized the experimental method through pre-test and post-test to compare the use of non-game-based activities and game-based activities in teaching General Mathematics. The control group came from a tourism/cookery class consisting of 40 students and was exposed to non-game-based activities method, while the experimental group came from tourism/food and beverages services class consisting of 39 students and was exposed to game-based activities method of teaching. Both the control and experimental group had the same level of Mathematics performance described as fairly satisfactory before the start of the experiment. After using the game-based and non-game-based activities method of teaching, both groups improved their performance but using game-based activities can enhance it more. Thus, the results show that workshop training on creating mathematical games that are aligned to the mathematics curriculum in all levels is advised to be conducted by the administrators to help teachers in utilizing game-based activities. In addition, follow-up studies using computer-assisted games or online math games may be conducted to confirm the findings of this study.

Keywords: Mathematics, game-based activities, student's performance, experimental design, Philippines