

The Effects of Localised Mobile Game for Grade 11 Mathematics Learning

Irene Divinagracia Suganob

Faculty of Senior High School Department, Rufino G. Palabrica Sr. National High School

Dingle, Iloilo, Philippines

Email: nenekulit_04@yahoo.com

ABSTRACT

Purpose - This study reports the effects of the developed localized mobile game *Hangaway Game* on the performance of Grade 11 students in Statistics and Probability.

Methodology - The quasi-experimental design of research (Ary, Jacobs, & Razavish, 1996) was used in this study. Prior to the conduct of research, the mobile game application was developed by incorporating Statistics and Probability concepts with the epic story *Hangaway* of Central Panay in the Philippines. The classes of Grade 11 were randomly chosen and the students were match-paired on the basis of their pre-test scores in the researcher-made performance test. Thirty-five students from the experimental group were given the intervention which was the localized mobile game. The other 35 students who comprised the control group however was exposed to the traditional teaching approach. After the intervention, post-test, written and oral interviews were conducted to determine the feedbacks of students regarding the usability of the mobile game. Qualitative data analysis was also utilized showing the results of the interview.

Findings – Based on the findings, it showed that teaching with the use of the localized mobile game enhanced the students' performance, making higher marks than those taught with the traditional approach. Majority of the students in the experimental group liked the *Hangaway Game* in their Statistics and Probability class. *Hangaway Game* as an educational game and as a learning tool helped the students understand Statistics and Probability in an enjoyable manner while analyzing and interpreting the problems clearly, and proved to have improved their memory. The game was also entertaining and has provided avenue for culture learning.

Significance – With the emergence of mobile devices and with the increase of interest of technology integration in mathematics education, this work may be of interest to those who propose the use of mobile devices for mathematics learning. Also, this may be of use to educators, mobile game developers and other interested parties who wish to create their own educational games to use as a learning tool for delivering educational content to learners.

Keywords: Mobile game, Digital Game-Based Learning, Mathematics Learning, Philippine educational system, Epic stories