

BIZZY MATH: A Development of a Gamified Learning Approach in Mathematics Using Mobile and Web Application as a Supplementary Learning Activity for Grade 5 Students at Sta. Cruz Elementary School

Authors : Paulyn Joyce A. Gonzales, Danielle Rey A. Montecer, Edlyn Grace S. Orcuse, Vladimire T. Pedralvez, Eliseo Q. Ramirez

Abstract : In modern education, Mobile Serious Games (MSGs) represent a dynamic fusion of mobile gaming and tailored learning experiences, aligning with diverse student preferences. This study introduces "BIZZY MATH," a curriculum-based mathematics learning tool designed with fundamentals of game development to enhance the Grade 5 student experience. The study objectives encompass creating a progressive mobile game promoting problem-solving and logical math skills, enabling teachers to manage game content, introducing different villains at each level, and rewarding player progression. The analysis methodology employed agile development and data collection from secondary resources. Results highlight the potential of mobile educational technology to boost student enthusiasm for learning. It offers universal access to e-learning content, complementing traditional or distance education. These mobile learning games serve as valuable resources, supplementing conventional educational materials. Thus, "BIZZY MATH" successfully achieves its objectives, providing an interactive platform for students to grasp complex mathematical concepts with engaging gameplay. Researchers developed Bizzy Math not only to impart knowledge but also to ensure an enjoyable educational journey. This study redefines education in our increasingly digitalized world in urban and rural areas, offering a promising path for math education by merging learning and entertainment.

Keywords : BIZZY MATH, gamification, gamified learning, mathematics, mobile serious games

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