

EFFECTIVENESS OF ADDIKART IN TEACHING ADDITION WITH SUMS UP TO 20 AMONG GRADE 1 PUPILS

ABSTRACT

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Mathematics is an important component of early education and supports logical thinking and problem-solving skills. Some young learners find addition difficult when instruction relies heavily on abstract explanations and repetitive drills. AddiKart is a digital tool designed to develop addition skills involving sums up to 20 through colorful visuals and movement-based tasks. This study determined its effectiveness in improving Grade 1 pupils' proficiency, comprehension, engagement, and retention in mathematics at Caybiga Elementary School. The study used a true experimental design involving 60 Grade 1 pupils who were randomly assigned to experimental and control groups. The experimental group used AddiKart during mathematics instruction, while the control group received traditional lessons using drills and visual aids. Pretests and posttests measured addition performance before and after the intervention. A survey questionnaire gathered learners' feedback on engagement and comprehension. Data were analyzed using descriptive statistics, the Shapiro–Wilk test for normality, and the Wilcoxon signed-rank test to determine differences in performance. Both groups initially demonstrated low proficiency in addition. After the intervention, the AddiKart group reportedly showed significant improvement in posttest scores compared with the control group, which showed minimal progress. Learners reported that the tool made mathematics more interactive and enjoyable and helped them focus, understand lessons, and remember addition procedures. The findings suggest that AddiKart improved mathematical performance, comprehension, and engagement among the participating pupils. Its game-based visuals and movement activities encouraged active participation and helped connect abstract addition concepts with concrete experiences. The study recommends that teachers consider similar interactive tools to support early mathematics learning and classroom engagement.

RECOMMENDED CITATION

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