



VIDEO TELLING SUPPLEMENTAL LEARNING MATERIAL FOR COGNITIVE DEVELOPMENT AND MATHEMATICAL ENGAGEMENT OF GRADE 10 STUDENTS

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ABSTRACT

The study sought to determine the extent to which students perceive video telling supplemental learning materials as a scheme for cognitive development and mathematical engagement in selected topics in K-12 Mathematics of selected Grade 10 students. The study employed a descriptive-correlational research design. This focused on describing the students' perceptions of the instructional phases of learning videos and the quality of learning videos and determining the effectiveness of using video telling supplemental learning material in the level of cognitive development and mathematical engagement of the students. The study's findings revealed that respondents' perceptions of the composition of the instructional phases of learning videos in terms of activation, demonstration, application, and integration are mostly captured. The respondents' perceptions of the quality of learning video in terms of physical design, cognitive design, affective design, effectiveness, appeal, and efficiency show that the instructional learning video is of high quality. Similarly, the findings show that the respondents' level of cognitive development in terms of remembering and applying as proficient, understanding and evaluating as approaching proficiency, and analyzing as developing. Furthermore, the results demonstrated that the students are now engaged in mathematics due to the implementation of the instructional learning video. Furthermore, there is a significant correlation between the components of video telling supplemental learning materials and students' cognitive development in activation, understanding, and evaluating. Furthermore, there is a significant relationship between the components of video telling supplemental learning materials and students' mathematical engagement in activation, demonstration, application, integration, cognitive, affective, and behavioral engagement. As a result, this study suggests that students use video telling supplemental learning materials for cognitive development and mathematical engagement.

Keywords: video telling Supplemental Learning Material, Cognitive Development, Mathematical Engagement