

Reinforcing Distance Learning: Utilization of Instructional Videos and Worksheets in Basic Calculus for Grade 11 STEM Students

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ABSTRACT

The objective of this study is to determine the relationship between the assessed effectiveness of utilization of instructional videos and worksheets in learning basic calculus. This study employed quantitative and qualitative types of correlational descriptive research. The respondents are Grade 11 STEM students of Tanauan City Integrated High School enrolled in the second semester, school year 2020-2021. The respondents were selected using Raosoft sample size calculator. To elicit the information needed, the researcher used a self-constructed validated questionnaire and diagnostic test. From the results and findings of this study, it can be inferred that there is a significant relationship between the respondents' level of performance in general mathematics and pre-calculus and their level of performance in basic calculus. It was also found out that there is a significant difference between the pre-test and post-test results in basic calculus. Also, there is a significant relationship between the respondents' assessed effectiveness of utilization of instructional videos and worksheets and their level of performance in basic calculus. Some challenges and difficulties were experienced by the respondents in learning basic calculus during distance learning. Adjustments were made by the students to address those difficulties. It was recommended to develop programs and intervention activities to have a continuous and consistent support in distance learning.

Keywords: basic calculus, distance learning, instructional videos, new normal education, worksheets