

Students' Perception, Mathematics Performance, and Experiences in Learning Mathematics Online Through Teacher-Created Videos

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ABSTRACT

This embedded mixed-method research aimed to determine the effect of using videos to the mathematics performance of non-mathematics major first year college students. It also sought to describe their perception of mathematics learning in the new normal and experiences on the use of videos in online mathematics learning. The methods used were researcher-made test on mathematics performance, asynchronous online FGD, observation, and open-ended question. Data analysis tools employed for quantitative data were mean, standard deviation, Shapiro-Wilk test (normality), and Wilcoxon Signed-Rank test all processed through SPSS. In addition, thematic analysis was used to analyze qualitative data. The study revealed that the performance of the students after the use of videos in online mathematics learning is higher than before its implementation. Students perceived mathematics learning online in the new normal as challenging but they are willing to learn; interesting and exciting; and meaningful amidst the crisis. Furthermore, the students' experiences on the use of videos in learning mathematics online exemplified that the videos were easy to understand, flexible, have implied social presence of the teacher, and suited to new normal learning. It is also worthy to note that a significant difference was found out in the performance of the students before and after the use of videos in learning mathematics online in favor of the performance after the intervention. Teacher-created videos are indeed effective in helping the students to reflect on their learning progress through self-assessment as one of the features of the videos, making mathematics learning flexible in terms of time and place, personalizing mathematics learning through the social presence of the teacher, simplifying mathematical concepts through comprehensive discussions, and instigating students' interests that mathematics can be exciting despite the global health crisis.

Keywords: students' mathematics performance, perception of online learning, learning experiences, new normal mathematics learning, videos in mathematics education