

Use of Mobile Phone Applications in Teaching Precalculus

Authors : Jay-R. Hosana Leonidas, Jayson A. Lucilo

Abstract : The K-12 Curriculum in the Philippines shed light to mathematics education as it recognizes the use of smartphones/mobile phones as appropriate tools necessary in teaching mathematics. However, there were limited pieces of evidence on the use of these devices in teaching and learning process. This descriptive study developed lessons integrating the use of mobile phone applications with basis on low-level competencies of students in Precalculus and determined its effects on students' conceptual understanding, procedural skills, and attitudes towards Precalculus. Employing Bring Your Own Device (BYOD) scheme in the study, lessons developed were conducted among Grade 11 Science, Technology, Engineering, and Mathematics (STEM) students at Central Bicol State University of Agriculture for the academic year 2018-2019. This study found that there is a significant difference between the competency levels of students along conceptual understanding and procedural skills prior to and after the conduct of lessons developed. Also, it disclosed that the use of mobile phone applications had positive effects on students' attitudes towards Precalculus. Thus, the use of mobile phone applications in teaching Precalculus can enrich students' understanding of concepts and procedural skills (solving and graphing skills) and can increase students' motivation, self-confidence, and enjoyment in dealing with Precalculus.

Keywords : bring your own device, mathematics education, mobile phone applications, senior high school

Conference Title : ICMLTEA 2020 : International Conference on Mobile Learning Technologies and Educational Applications

Conference Location : Sydney, Australia

Conference Dates : March 26-27, 2020