A bibliometric analysis of the structural equation modeling in mathematics education

ABSTRACT

Structural equation modeling (SEM) is well-known in statistics due to its flexibility and accessibility. In the Scopus database alone, there were more than 1,500 search results related to SEM in mathematics education. However, there is a lack of scientific reviews of mathematics education that use SEM. The purpose of this study was to investigate research trends related to SEM in mathematics education. The researcher used Biblioshiny and VOS viewer to conduct bibliometric analysis on 1,017 papers that have been published in the Scopus database. The result showed that the number of publications in the research area has continuously grown over the last few decades. The US was the most prolific country in terms of publication and international collaboration. Professor Herbert W. Marsh had the most publications and citations, while the most productive journal was Frontiers in Psychology. The most current keywords include STEM, technology acceptance model, control-value theory, and computational thinking. Hence, these findings may serve as a guide for future researchers to conduct relevant research using SEM.