World Academy of Science, Engineering and Technology
International Journal of Mathematical and Computational Sciences
Vol:14, No:11, 2020

Modeling Exponential Growth Activity Using Technology: A Research with Bachelor of Business Administration Students

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Abstract : Understanding the concept of function has been important in mathematics education for many years. In this study, the models built by a group of five business administration and accounting undergraduate students when carrying out a population growth activity are analyzed. The theoretical framework is the Models and Modeling Perspective. The results show how the students included tables, graphics, and algebraic representations in their models. Using technology was useful to interpret, describe, and predict the situation. The first model, the students built to describe the situation, was linear. After that, they modified and refined their ways of thinking; finally, they created exponential growth. Modeling the activity was useful to deep on mathematical concepts such as covariation, rate of change, and exponential function also to differentiate between linear and exponential growth.

Keywords : covariation reasoning, exponential function, modeling, representations
Conference Title : ICAME 2020 : International Conference on Advances in Mathematical Education
Conference Location : Venice, Italy
Conference Dates : November 12-13, 2020