

The role of self-regulation in the relationship between adaptability and engagement: A case in online mathematics learning for elementary school students

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ABSTRACT

This study aims to investigate the role of self-regulation in the relationship between adaptability and engagement of students. To achieve this purpose, three questions were asked: (1) whether there is an effect of adaptability on self-regulation, (2) whether there is an effect of self-regulation on student interactions, (3) whether there is an influence of adaptability on student engagement either directly or mediated by self-regulation. Student engagement in online mathematics learning during the pandemic experienced differences from face-to-face learning. Automatically, it affects on student achievements and it has to be completed immediately. This research is a cross-sectional survey that uses an instrument in the form of an online questionnaire to collect data. The participant of this study was 339 students with an average age of 11.16 years at several public elementary schools in Yogyakarta. The validity test used in this study was a confirmatory factor analysis (CFA) before the main analysis. It then tested the convergent and discriminant validity with Cronbach's Alpha of 0.6 which was used as the limit that met the criteria. Descriptive statistical analysis is used to answer research questions, specifically the mean (M), standard deviation (SD), and range between average items. Correlation and regression analysis is used to answer research questions, while multilevel mediation analysis uses the PROCESS feature in SPSS. The results showed that: 1) adaptability has a positive and significant effect on student self-regulation, 2) self-regulation has a positive and significant effect on student engagement in online mathematics learning, and 3) adaptability has a significant positive influence on student engagement both directly and through mediation of student self-regulation. So, from this study give a big implication for student learning environment, especially parental involvement. Because the student spend most of time with them and also it will be implicated for school to gain a good cooperation with them to increase the students self-regulation and engagement in online mathematics learning.

Kata Kunci: *adaptability, elementary school, online mathematic learning, self-regulation, student engagement*