

An Authentic Learning Approach to Assist the Computational Thinking in Mathematics Learning for Elementary School

by Dr. Ratna Wardani, S.Si., M.T., Dr. Masduki Zakarijah, M.T., Dr. Priyanto, M.Kom., Muhammad Irfan Luthfi, M.Pd., M.Sc., Prof. Dr. Wu-Yuin Hwang, Irma Nur Rochmah, Andi Ferry Rahman, Muhammad Trio Maulana Putra

ABSTRACT

In this study, we collaborated to developed and applied a fraction app to help elementary school students in learning mathematic with computational thinking in the authentic context. In this study, an experiment was carried out during Covid-19 pandemic to investigate the effects of the fraction app to the students' learning achievement improvement when they study from home. Totally 20 fifth-grade students were assigned as the experimental group. The experimental Group learned mathematic using fraction app to improve they computational thinking skills assisted by authentic learning approach. After the experiment, the result showed that the students' achievement improved. The reason was by using the fraction app, students did more practice in learning mathematics. The result were strengthen by the correlation between the number of students' exercise to the their final score. The more they did practice, the higher the final score they gained. Moreover, a multiple regression result shown that the number of students' exercise can predict the students' learning achievement. In the final, the result of this study contributes essential conclusion and suggestion for future research.

Kata Kunci: Computational thinking, Authentic context, Mathematic learning, Covid-19 pandemic, Study from home