

ABSTRACT

The teaching and learning process is an interaction between the teachers and the students through reciprocal communication taking place in an effective situation to achieve learning objectives. Entering the 21st century, the development of information and communication technology in the era of the industrial revolution 4.0 gives a significant influence on learning that must adapt and use technology. In the current era, many application-based learning technologies in the field of education can be utilized by teachers as media or tools in learning to support the teaching and learning process. The aims of this research are (1) to determine the effect of the Reading Questioning and Answering learning model assisted by the Kipin School application on students' metacognitive abilities (2) to determine the effect of the Reading Questioning and Answering learning model assisted by the Kipin School application on cognitive learning outcomes, and (3) to determine the effect of metacognitive abilities on cognitive learning outcomes. This is a quasi-experimental research. The sample consists of two classes, namely class VIIc as the experimental class and class VIIa as the control class with a total of 57 students. The instruments used are metacognitive ability questionnaires and tests to measure cognitive learning outcomes. The data analysis uses normality and homogeneity test assisted by SPSS, while the hypothesis test uses anacova and regression test. The results show that (1) there is an effect of the Reading Questioning and Answering learning model assisted by the Kipin School application on students' metacognitive abilities with a significant score of $0.002 < 0.05$ (2) there is an effect of the Reading Questioning and Answering learning model assisted by the Kipin School application on cognitive learning outcomes with a significant level of $0.001 < 0.05$ (3) there is an effect of metacognitive ability on cognitive learning outcomes with a significant value level of $0.003 < 0.05$.

Keywords: *Reading Questioning and Answering, Metacognitive Ability, Cognitive learning outcomes.*

