

ABSTRACK

Riska Nurapriliana Iskandar. 2020. *The application of E-learning as a TPACK component in improving learners' critical thinking ability in immune system material. Directed by Dr. Cartonno, M. Pd., M.T. and Dr. Nia Nurdiani, M. Si.*

The research aims to know the application of E-learning as a TPACK component in improving learners' critical thinking ability to the immune system material. The subject used a total of 35 students in a grade at xi mipa 3 sman 12. The design used in the research is a pre-experiment with the design type one group pretest-design. Instruments used to measure students' cognitive abilities have changed by approximately 25 items of pretest and posttest, pretesting is performed before the application of E-learning on the immune system material, whereas posttesting is done after the release of E-learning on the immune system material, and refueling to identify students' responses to those E-learning. Based on cognitive aspect results from 65.37 pretest scores with a lowest score of 40 and a high value of 80, with an 81.94 lowest score of 72 and the highest score of 92, and the results from n-gain scores were 0.45, while student achievement scores were obtained results that learning using E-learning methods was highly classified. From that data, the application of E-learning methods on TPACK components can increase critical thinking ability in learners.

Keywords: *E-learning, TPACK, critical thought of protege, immune system*