



Profile of Students' Critical Thinking Ability: Implementation of E-Modul Based On Problem-Based Learning

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ABSTRACT

Electronic module (E-module) that is based on a problem-based learning science is a teaching material made by being operated online that is simple, flexible and independent, so as to facilitate students' critical ability to solve problems in everyday life and meet global challenges that can be accessed online through certain sites. The use of this E-module supports the digital literacy movement as one of the needs of the 21st century. One of the 21st century abilities that can be trained through the use of E-Modules is critical thinking. This study aims to determine students' critical thinking ability after using E-Modules based on "problem-based learning". Method used is one shot case study. The results showed that 61.129% of students have very high critical thinking ability, 35.48% of students have high critical thinking ability, and 3.22% of students have moderate critical thinking ability. It shows the use of problem-based learning-based E-Modules is effective in training students' critical thinking ability.

INTRODUCTION **2**

The development of ICT (Information and Communication Technology) is developing very quickly and even has penetrated into all sectors of life, one of which is the education sector. The development of ICT has an effect on shifting the learning paradigm from traditional learning to technology-based learning. Learning resources that support ICT-based learning are flip charts, games, magazines, leaflets, interactive multimedia, templates, electronic modules, power points, audio, booklets, e-books, videos, and web content (Rahmadi et al., 2018). Learning modules are very useful in the learning process aimed at generating curiosity and motivating students to learn. Module is a way of organizing subject matter that pays attention to the function of education. The use of modules in learning is able to bring students to the expected competencies. The speed and ease of presenting information as a learning resource is easily achieved if learning uses electronic media (Triyono, 2015). Learning modules in the ICT era are no longer print modules, currently a lot of electronic modules are developed or commonly referred to as E-modules.

In the field of education, the development of learning media is developing in the learning process such as module learning media rapidly. The module has been developed into an E-module. According to (Elvarita et al., 2020), E-module is an application in the learning process that has methods, materials and assessments that are made systematically and lead students to arrive at the goal of competence that should be with its level of complexity. Meanwhile, Solikin (2018) stated that E-module is a form of writing that is in electronic format and useful for learning and opinions (Laili, 2019) E-module is an independent learning media that contains learning materials. The use of interactive modules is needed in online learning that is minimally face-to-face. It is also very helpful when used on fairly abstract materials such as environmental pollution.

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