E-Module Based on Blended Learning Type Flipped Classroom on Climate Change Materials to Train Students' Digital Literacy Ability

Anik Mufidah[1*], Sifak Indana[2], Zainul Arifin Imam Supardi[3]
[1,2,3]Universitas Negeri Surabaya, Surabaya, Indonesia

Sections Info

ABSTRACT

Objective: E-modules are teaching materials integrated with technological advances using digital applications that are more attractive to students. One of the problems in learning science is the low ability of students' digital literacy. Efforts to increase digital literacy skills include using an e-module based on a flipped classroom type of blended learning. This study aims to describe the validity of teaching materials consisting of syllabi, lesson plans, student worksheets, blended learning-based flipped classroom-type e-modules on climate change material, digital literacy ability questionnaires, and knowledge test instruments. **Method:** The method used in this research is limited to the validity of teaching materials. The developed teaching materials were tested on students of class VII JHS. Data collection was carried out using the validation method, and data analysis was carried out quantitative. **Results:** The results of the data analysis concluded that the syllabus was in the very valid category, the lesson plans were in the valid category, the e-module was in the valid category, the student worksheets were in the valid category, the digital literacy ability questionnaire sheet was in the valid category, and the knowledge test instrument was in the valid category. **Novelty:** Flipped classroom-based blended learning-based e-modules can be used as an alternative to electronic modules in learning to improve students' digital literacy skills. This e-module can be used for varied learning both online and offline so that students are expected to gain learning experiences that can later be used to solve problems encountered in real life.

INTRODUCTION

Technological progress is one of the supporting factors in the student learning process. Sukmawati (2018) argued that the application of technology in learning has an impact on improving the quality of learning and changing the learning process to be more effective and practical and can increase knowledge and skills for educators and students in utilizing technology in the learning process both in the classroom as well as outside the classroom. Print modules are rarely in demand by students; they prefer to view material via cellphones rather than printed books or printed modules. Therefore, e-modules are teaching materials integrated with technological advances using digital applications that are more attractive to students—based on the research results of Rahayu et al. (2020) demonstrated the effectiveness of using e-modules based on blended learning based on an increase in learning outcomes and able to train students in independent learning.

Blended learning is an alternative to learning activities that utilize digital technology. Blended learning embodies learning methods that eliminate the barriers of place, situation, and time and allows for high-quality interactions between teachers and students while implementing long-distance learning practices that emphasize the flexibility of students' time, place, and learning speed (Prayitno, 2015). One type of blended learning model is the flipped classroom. The blended learning model of the

1._204_Anik_Mufidah_et_al_1-16.doc

23% SIMILARITY INDEX

21% INTERNET SOURCES

6% PUBLICATIONS

4% STUDENT PAPERS

1	journal.ia-education.com Internet Source	**8**%
2	sjdgge.ppj.unp.ac.id Internet Source	**2**%
3	files.eric.ed.gov Internet Source	**1**%
4	ejournal.unesa.ac.id Internet Source	**1**%
5	www.journal.iel-education.org Internet Source	**1**%
6	Submitted to School of Business and Management ITB Student Paper	**1**%
7	etheses.uin-malang.ac.id Internet Source	**1**%
8	Submitted to Universitas Negeri Surabaya The State University of Surabaya Student Paper	**1**%
9	jurnal.kimia.fmipa.unmul.ac.id	