The Practicality of Blended Learning Assessment Model to Accomodate Instructional Domains: 3-Stage Trial

U Rahmi\(^{(1)}\), S Syafril\(^{(1)}\), A Azman\(^{(1)}\), A Azrul\(^{(1)}\), Z Zuliarni\(^{(1)}\)

\(^{(1)}\)Univeristas Negeri Padang, Padang, Indonesia

*Corresponding Author: ulfia@fip.unp.ac.id

Abstract. The purpose of this study is to examine the practicality of the blended learning assessment instrument model that had been declared valid in previous studies. The model has been valid to accommodate three instructional domains. This study uses the ADDIE model. In the practical testing phase carried out in three stages, namely one to one test (3 users), small group test (6 users), and field group tests (30 users). The results of the first and second stage trials found that this model was practically applied to the user, but in the field group test, the results were quite valid. Based on further studies, it was found that the students were constrained to continue assessing the LMS because flash players were not updated. Students need to update in advance to be able to continue the assessment activities. The implication is that all learning components must be prepared before the application of blended learning.

1. Introduction

The development of Information and Telecommunications Technology (ICT) influences in all aspects of life, it is not spared from the influence of the development of ICTs that also give influence to learning, with these developments have given new nuances in the learning model, Blended Learning. Blended learning combines face-to-face meetings with online learning [1], [2]. In its implementation, various facilities and infrastructure needed to support the learning process need to be provided and developed such as e-learning Center, Staff site, Student Site, e-Library center, Internet Lounge, Integrated Lab, and other supporting facilities so that good learning achievements can be achieved and be combined with various other applications such as blog folio [3]. Learning achievements are a very important part of the process of determining educational success. It can be proven in the study of students absorption of the material with the application of blended learning [4], [5]. For this reason, a proper assessment model for learning is needed. The results of the assessment can be used to improve the learning and assessment steps that will be used by educators. The valuation model is a necessity so that implementation can be measured in analyzing the effectiveness of the model used by the assessment model in blended learning that can accommodate 3 learning domains including cognitive, affective and psychomotor domains.

Assessments in a blended learning environment include the usual assessment in face-to-face meetings, then added to the assessment of online learning. Some of the principles that need to be considered for conducting online learning assessments [6], namely: 1) student-centered assessment design including self-reflection, 2) the design and scope of the rubric to assess contribute to discussion, assignments, projects, and collaborations from all of them, 3) including collaborative assessment through working papers published together with comments from other students, 4) encouraging students to develop
skills and provide feedback by providing guidance on how to provide good feedback, 5 ) using assessment techniques that are appropriate to the context and harmonize them with the learning objectives, 6) the design of the assessment must be clear, easy to understand and possible to do in the online environment and 7) asking the opinions of students as input on how the assessment should be conducted. The purpose of this study is to examine the practicality of the blended learning assessment instrument model that had been declared valid in previous studies. The model has been valid to accommodate three learning domains.

2. Research Methodology

This study uses the ADDIE model [7]. After going through the previous stages, namely the analysis phase, and design. At this part, a three-stage trial phase is carried out by testing the blended learning assessment model that has been developed based on needs analysis in the field [8]. The process begins with distributing questionnaires to students in the subject of Theory of Learning. The distribution of the questionnaire was conducted in three stages. The first stage is given to small groups (3 students), the second stage is given to the medium group (6 students) and the third stage is given to large groups (30 students). Practical assessment instruments were given to the three groups and then processed using descriptive data analysis techniques. The analysis is elaborated by describing the practicality of the Blended Learning Assessment Model to accommodate the learning domain.

3. Result and Discussions

Practical trials of small groups were conducted by testing the blended learning assessment model for 3 students. This is done to see the practicality of using the blended learning assessment model obtained through practicality questionnaires filled in by students as users. The average value of 78.7. after going through improvements from user suggestions, then a trial of the blended learning assessment model in the medium group was conducted on 6 students, based on questionnaires filled in by students with an average score of 80.3. While the large group test obtained an average value of 60.7. These following data are the results of the practicality of small, medium and large groups testing.

| Group   | Average Practicality |
|---------|-----------------------|
| Small   | 78.7                  |
| Medium  | 80.3                  |
| Large   | 60.7                  |

**Figure 1.** average practicality rating of small, medium and large group

Figure 1 shows the average practicality rating of small groups is 78.7, medium groups is 80.3 and large groups are 60.7. The results of the data analysis concluded that in the small and medium groups the application of the blended learning assessment model was practical. Whereas in large groups, it is quite practical. Based on further studies, it was found that the students were constrained to continue assessing the LMS because flash players were not updated. Students need to update in advance to be able to continue the assessment activities. The implication is that all learning components must be prepared before using the application of blended learning. The intervention is realistically usable in the
settings for which it has been designed and developed [9]. It means that the formulated formula is practical to be applied to larger groups.

A development product must be valid, practical and effective. This article is limited to an explanation of the practicality of the assessment model in blended learning. This practicality test was carried out through three stages, namely the practicality test for small group students as many as 3 students, practicality test for the medium group students as much as 7 people and practicality test for large group students as many as 40 people. This refers to the opinion of Dick and Carey that the first prototype trial was conducted on 1-3 subjects, second to 6-8 subjects and third to one class or 15-30 subjects [10]. Trial activities are formative evaluation activities carried out by asking for help from others to assess the product being developed. People who are asked for help to review products are called respondents. Trial respondents are usually chosen who represent the target group. The purpose of this trial is to get feedback directly from prospective users about the quality of the product being developed. Trials usually produce findings of product weaknesses or shortcomings, list errors, and suggestions for improvement.

Furthermore, online learning must be designed a clear, easy to understand assessment and the possibility of being able to be done in an online environment. There are a number of effective techniques that can be used to make online learning assessments [6], [11], including 1) providing regular assessment, continuous communication with feedback to students as a means to add value to learning itself, 2) entering dynamic interactions that are defined using group work, collaboration and high-level interaction through discussion, 3) modifying traditional assessment tools such as essays, answer questions from discussions and projects that require demonstration of acquisition and problem-solving skills and 4) using assessment of alternatives such as performance-based assessment, automatic assessment and use of e-portfolios.

4. Conclusion

The results of the first and second stage trials found that this model was practically applied to the user, but in the field group test, the results were quite valid. Based on further studies, it was found that the students were constrained to continue assessing the LMS because flash players were not updated. Students need to update in advance to be able to continue the assessment activities. The implication is that all learning components must be prepared before using the application of blended learning.

Rerenseni

[1] C. R. Graham, “Blended learning systems,” Handb. blended Learn., pp. 3–21, 2006.
[2] S. E. Smaldino, D. L. Lowther, and J. D. Russell, Instructional technology & media for learning: Teknologi pembelajaran dan media untuk belajar. Prenada Media, 2014.
[3] U. Rahmi and D. Darmawan, “Blog Folio in Blended Learning: a Development of Students’ Information Processing Skills in Digital Age,” Al-Ta’lim J., vol. 25, no. 2, pp. 128–134, 2018.
[4] A. Bentri, A. Hidayati, and U. Rahmi, “Students absorption of materials through using blended learning in the implementation of curriculum,” IJASSH, 2018.
[5] A. Bentri and U. Rahmi, “Students Absorption of Materials Through using Blended Learning in the Implementation of Curriculum,” Int. J. Adv. Soc. Sci. Humanit. (IJASSH), 2016.
[6] R. M. Palloff and K. Pratt, Assessing the online learner: Resources and strategies for faculty, vol. 7. John Wiley & Sons, 2009.
[7] R. M. Branch, Instructional design: The ADDIE approach, vol. 722. Springer Science & Business Media, 2009.
[8] A. Bentri, U. Rahmi, A. Hidayati, and D. Supendra, “The Models of Assessment to Accommodate Instructional Domain in Blended Blended Learning,” in International Conference on Educational Sciences and Teacher Profession (ICETeP 2018), 2019.
[9] T. Plomp and N. M. Nieveen, An introduction to educational design research: Proceedings of
the seminar conducted at the East China Normal University, Shanghai (PR China), November 23-26, 2007. Stichting Leerplan Ontwikkeling (SLO), 2010.

[10] H. P. Setyosari, Metode penelitian pendidikan & pengembangan. Prenada Media, 2016.
[11] R. M. Palloff and K. Pratt, Collaborating online: Learning together in community, vol. 32. John Wiley & Sons, 2010.