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Effectiveness of Blended Learning Model Based on Problem-Based Learning in Islamic Studies Course

Hamzah
Assoc, Prof., Universitas Islam Riau, Indonesia, *hamzah@fis.uir.ac.id*

Syahraini Tambak

Universitas Islam Riau, Indonesia, *syahraini_tambak@fis.uir.ac.id*

Muhammad Luthfi Hamzah
Universitas Islam Negeri Sultan Syarif Kasim Riau, Indonesia, *muhammad.luthfi@uin-suska.ac.id*

Astri Ayu Purwati
Institut Bisnis dan Teknologi Pelita Indonesia, Indonesia, *astri.ayu@lecturer.pelitaindonesia.ac.id*

Yuda Irawan
STMIK Hang Tuah, Indonesia, *yudairawan89@gmail.com*

Muhammad Isnaini Hadiyul Umam
Universitas Islam Negeri Sultan Syarif Kasim Riau, Indonesia, *muhammad.isnaini@uin-suska.ac.id*

This study aimed at creating LMS-based blended learning using the Web-Centric Course (WCC) model for Islamic studies as a course according to the curriculum demands. This study was an R&D (Research and Development) with ADDIE (Analysis, Design, Development, Implementation and Evaluate) design as the learning model combined with the steps of research development by Borg and Gall. The finding of this study is a Blended Learning Model based on Problem Based Learning in Islamic Studies Course. Respondents in this study in measuring the practicality, effectiveness of students who were distributed to 32 students to test the practicality, effectiveness of the Blended Learning model (Big Group) and 10 students to test the practicality, effectiveness of the Blended Learning (Small Group) model who were taking Islamic studies courses. The development of this model is supported by textbook, model book product, lecturer manuals, student manuals, application manuals, e-learning. The result of the product validity analysis indicates that all the product in this study was valid. The result of practicality analysis by lecturer and student show that everything is practical.

Keywords: effectiveness, blended learning, problem based learning, Islamic studies

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INTRODUCTION

Education is a field that will never escape being discussed from time to time. With the development of technology and the era of education, it plays a very important role in the life of the nation. Human resources are the basis for economic development and nation building, but in reality, human resources are currently still very low, this will be an obstacle in the era of globalization, because in this era of globalization is the era of quality competition. If you want to take part in this era of globalization, especially Indonesia, then Indonesia must be able to increase human resources both in terms of moral, responsibility, creativity and intellectual aspects (Ambiyar, et al., 2019; Suharno, et al., 2020). The 4.0 industrial revolution era makes all industries become digital-based industries in the form of interpersonal relationships, machines, and everything has been everywhere (Hamzah, et al., 2019). This is known as IoT and Cyber-Physical Systems (CPS)(Rojko, 2017). All preparations must be prepared to face the era of the industrial revolution 4.0 where all industries are virtual based in the form of relationships between humans, machines, data and everything is already everywhere. The rapid technology development has made significant changes in the educational sector, especially in the learning process (Hamzah et al., 2019). An Islamic studies course is a compulsory course that is taught in every higher educational institution for Moslem students. The learning material of this course is difficult to be understood and the material delivery by the lecturer is not attractive, whereas, this course should be understood and it cannot be only memorized; another reason is that many students do not interest in taking this course since it is abstract and it is difficult to be visualized (Dziuban, 2018). By the more developing information technology and the 4.0 industrial revolution makes nearly all aspects of life replaced with technology. In the educational world, the conventional method has been replaced with a blended learning model for improving the learning quality (Kintu, 2017). The learning model previously used in teaching Islamic studies was the face-to-face model using teacher-centered learning, and as a result, the interaction in the form of students' control against the learning process is strongly limited. Next, the online learning source has not been used in the learning process of Islamic studies to be an added-value that can be utilized in the face-to-face learning model.

Problem Formulation:

- How is the Learning Management System (LMS)-based Blended learning using the Web-Centric Course (WCC) model for Islamic studies?
- Is the blended learning model constructed for Islamic studies effective, valid, and practical in improving the learning outcome?
- What are the factors affecting the quality of learning outcome in developing a model for conducting a blended-learning model in Islamic studies.

Islamic studies is a subject that must be taught at all levels of education, both at the basic level, upper secondary level, and upper secondary level. However, in reality, based on observations, the teaching methods of Islamic studies teachers are less attractive to students. Many factors cause the lack of interest of students in

participating in learning in islamic studies subjects, including the lack of teachers in innovating during the learning process, causing a sense of boredom in students when participating in islamic studies learning.

Literature Review

E-Learning is a broad phrase that encompasses all electronic learning systems (Lubis et al., 2020). Presently, nearly all teaching processes in higher educational institutions involve the use of several electronic materials. The potency of technology has made us use it in face-to-face learning, and at least, the frequency of lecturing transparency is available in the electronic form. Consequently, all courses or, at least, some of them are more frequently learned through the web (Hamzah, et al, 2019; Polhun, 2021).

A blended learning model is an educational approach that incorporates both face-to-face and online learning. The term "blended learning" illustrates learning using the blended learning method, such as activities tied to different locations (for instance, face-to-face classroom), the teaching which does not depend on time or place by using videos as the learning aid, and E-Learning using real-time videos with a distance and video conference (Sumarmi, et al., 2021; Zainuddin & Keumala, 2018).

Blended learning, which combines video lectures with face-to-face instruction, allows students to participate in education regardless of time or location. Face-to-face instruction and the usage of streaming lecture videos are the foundations of blended learning as a solution, as designed for master's degree programs in information technology and mathematics (Sugiharni, 2018). Students have shown a strong interest in lecturing videos. Furthermore, the usage of lecture films can promote involvement, which has a good impact on course completion (Lam, 2014).

Blended learning is a varied combination of face-to-face lecturing in the class, learning through the Internet, and learning that is supported by various technologies aiming at creating an efficient learning environment (Bahri, et al., 2021; Isti'anah, 2017). Blended learning can be applied using a problem-based model. In the traditional approach, instructions are given in the class. Blended learning is a formal educational program, whereby a student learns, at least, some parts by the content or teaching through digital and online media using some students' control elements from time to time, place, line, or speed (Putra, et al., 2021). Meanwhile, the student still attends the "brick and mortar" school by the presence of teachers, face-to-face method combined with activities mediated by a computer(Nuri & Bostanci, 2021). Blended learning is also used in professional development and training management. Therefore, the development of a blended learning model should be based on interactions between face-to-face teaching and online learning through a comprehensive and continuous evaluation (Prastiyono et al., 2021). It gradually reaches the effect of a great teaching and learning process. The blended learning model is not only good for the teachers who play the main role in teaching assistance, inspiring, and monitoring the teaching process but also reflects the students' initiatives, enthusiasm, and creativity as the main body of the learning process. The students complete the autonomous learning in the learning platform according to the teachers' preparation in the form of micro-course videos before the class and internalize

the knowledge through exploration and practical projects in the class. A teacher plays a role to make a big change in the whole process. A teacher can be a planner, active assistance, and the students can be the actual main body or the operator and the ones who perform the tasks that maximize the mobilization of the students' enthusiasm (Zimba et al., 2021).

Blended Learning is a learning approach that combines face-to-face (f2f), online learning, and learning aided by other technologies to create the most efficient learning environment possible (El-Mowafy et al., 2013). Other characteristics of blended learning include online and conventional learning, technology and media used to distribute learning materials, learning models, group and individual learning activities, and synchronous and asynchronous learning interactions. It also includes the selection of the most suitable combination for improving the students' motivations providing them assistance for guaranteeing success in mastering the material (Setyaningrum, 2018)(Owston, 2018). The current technology development makes the teachers be able to design and deliver the learning material for supporting and improving the quality of the learning process, especially in individual cognitive experience as well as experience from the social environment (Lu et al., 2021).

According to Philips, constructivism is a broad and complicated philosophical theory of knowledge acquisition. This viewpoint has been seen as having a significant impact on learning for the past two decades of the twentieth century, and it is still in use today. This constructivism approach encourages students to get new experiences in dealing with obstacles; via obstacles, students can better comprehend their concerns and get new information (Hoic-Bozic et al., 2009). The implementation of the blended learning method based on constructivism shows that the learning method provides high flexibility against time and place for learning. The students at the higher education level have good self-management according to their learning needs so that it can increase the percentage of learning motivation to 74.7%. Because the contents are presented using communicative language and are organized step-by-step based on the students' abilities, the students have an easy time understanding them (Setyosari & Djatmika, 2021). Problem-Based Learning is an inductive learning method that begins with a real-world problem (Kadek Suartama et al., 2020). Teaching can be difficult, especially when the pupils are classified as readers who lack self-motivation and critical thinking skills. Hence, a successful problem-based learning approach at universities is known as 'Literature for Language Purposes' taken by a graduate student majoring in English Literature with a student majoring in Communication at a Malaysian local university aiming at investigating the effect of problem-based learning on teaching literature. The finding showed that the problem-based learning model was suitable and useful to be applied in teaching and improving critical thinking skills (Rahman et al., 2016). The implementation of this model has been successfully conducted in a physics course (Dwianto et al., 2017) (Celik et al., 2011), learning of gas concept (Bilgin et al., 2009), health (Keleekai, 2016) (Manzanares, 2020) (Protsiv, 2016), and others. Several things need to be kept in mind in learning Islamic studies. They are as follows (Ahyat, 2017) (Tambak, 2017):

- Islamic studies as awareness attempt; it is an activity of guiding, teaching, or training conducted according to plan and aware of the goals that will be achieved.
- The students should be prepared for achieving the goals of Islamic studies.
- The students or the teachers of Islamic studies should be prepared to perform their tasks, such as planning assistance, teaching, and training.
- The Islamic studies activities are led to improve faith, understanding, comprehension, and Islamic studies teaching experience

Therefore, several concepts of Islamic studies should be changed based on the changes in generations, such as using a suitable learning model in this current, and one of them is a blended learning model based on problem-based learning

METHOD

This study was a research and development study (R&D) aiming at creating a product in the form of Learning Management System (LMS)-based Blended Learning by developing face-to-face teaching in the class using an e-learning website with a problem-based approach in the Islamic studies by using the instrument developed into a questionnaire.

The development of a learning model used in this study was the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) model as the learning model combined with the steps of development research by Borg and Gall as the basic consideration that the model was suitable for developing the accurate, effective, efficient, and helpful instructional model in the learning development for lecturers. The 5 stages in the ADDIE model in this study are as follows:

1. Analysis. It is done by analyzing the product that will be developed. It includes need assessment, literature review, and a small-scale study using the qualitative-descriptive approach as a step for need analysis in identifying problems and performing task analysis against the development of the blended learning model for Islamic studies.
2. Design. The model development designer is developed based on the analysis that has been performed. This stage consists of creating a blueprint of blended learning development based on problem-based learning in Islamic studies. Meanwhile, the things designed in this stage are online learning steps and face-to-face method from the first meeting to the last meeting.
3. Development. The product development that will be made is in the form of a model, and validation by experts and revision will also be conducted. In this stage, the result of product design is submitted to computer technology and information expert for learning design and material and learning experts for Islamic studies. The experts are asked for giving inputs in discussing the relevancy or the accuracy of goals, basic competencies, learning indicators, the accuracy of learning materials, and learning media and method.
4. Implementation. Implementing a model being developed is aimed at testing in the field and revising the occurring problem so that the model/product being

developed is suitable for this study objective. In this stage, both the limited stage and initial trial test will be conducted at the Faculty of Islamic Studies, Universitas Islam Riau. Moreover, an extended trial test will be conducted to the effectiveness and the practicality.

5. Evaluation. The evaluation process is applied to the model/product created before the final product is produced.

Product trial test after conducting validation and revision processes and getting a result in the form of a product, an empirical trial process is aimed at getting an illustration of whether the model being developed is effective and practical compared to the previous one, and whether or not the student activeness, self-rule, learning motivation, and student satisfaction affect the blended learning model that is being developed. The trial test will be conducted twice, namely limited trial test and extended trial test. Meanwhile, the subjects of the trial test are experts and students.

Sample and Sampling Technique

This research was conducted at Universitas Islam Riau. Respondents in this study were students who took courses in Islamic Studies. Respondents in this study in measuring the practicality, effectiveness of students who were distributed to 32 students to test the practicality of the Blended Learning model (Big Group) and 10 students to test the practicality of the Blended Learning (Small Group) model who were taking Islamic studies courses.

The Research Instrument, Validity, and Reliability

Types of instruments used in the form of questionnaires and tests to identify the types of student difficulties in learning, to measure learning outcomes and student motivation in studying Islamic studies. A structured questionnaire in the form of open-ended questions to obtain information on needs that support theory, learning development and information from students regarding the use of e-learning learning media as well as an assessment of the quality of the interactive media provided.

Questionnaires are also used to obtain opinions from media experts and material experts, while tests are used to see the effectiveness of the developed media. The instrument made is to test the validity, practicality and to test the effectiveness.

The level of product validity developed using a validation instrument in the form of an assessment questionnaire filled out by experts according to their expertise, namely experts on Islamic studies and e-learning teaching materials. Content and product validation analysis is based on the results of the validator's assessment. The data obtained through a questionnaire, were analyzed using descriptive statistics.

Instruments for testing the practicality of developing blended learning models in computer network courses based on e-learning are using questionnaires and observation sheets. Questionnaires given to students and lecturers who use the blended learning Model in Islamic studies courses based on e-learning while the observation sheet is to observe the process of implementing learning. The questionnaire used was first analyzed by trial using product moment validity analysis and reliability using the Alpha Croncbach formula.

The instrument for testing the effectiveness of the blended learning model in computer network courses based on e-learning on learning motivation, learning discipline and the quality of student attitudes in learning can be measured using a Likert scale questionnaire instrument. An instrument is said to be valid if the instrument used can measure what is being measured. A validity can be known after the instrument testing activities are held. To determine the validity of the question item, the product moment correlation formula is used

Product Trial

In this study, product trials will be carried out after development or after the product is completed through a control experimental group design trial to assess the effectiveness of the developed product. The trial can be carried out in a limited and broad scope with the aim of measuring the level of validity, practicality and effectiveness of the developed model. Testing in this study is at the implementation stage to see the feasibility of the product from the user.

Then to achieve this product or model practically and efficiently, product testing was carried out 2 times, namely: Expert Test through Focus Group Discussion and Test of respondents and product users, namely two groups of students who were undergoing Islamic studies lectures at the Islamic University of Riau.

FINDINGS

In this study, the blended learning model is developed using the ADDIE model. This study was conducted at Universitas Islam Riau. In general, the use of the blended learning model was done for overcoming the problem of study time, the learners' distance with their lecturers, and the non-transparency of the face-to-face learning process if it is conducted face-to-face. The current learning still has a poor interaction between the students and the lecturers and the interaction between the students with another student in the class. For the problem of the students' learning interaction that had been conducted, blended learning was performed to overcome it. Learning interaction problems occurred due to the students' low learning outcome, while the interaction process experienced by the students and the lecturers was due to the limited study time.

This stage explains the development process and the result of developing the blended learning model based on Problem-Based learning in Islamic studies. This stage consisted of five steps based on the ADDIE model, namely Analysis, Design, Development, Implementation, and Evaluation. Moreover, this study aimed at creating a blended learning model based on problem-based learning in Islamic studies and revealing the validity, practicality, and effectiveness.

1. Analysis

This stage is identifying the problem. The problem identification is obtained through observation, interview, and documentation of both students and teachers related to rationalization by stating that the blended learning model is eligible to be implemented. Based on the result of the observation, interview, and documentation to both lecturers

and students, it was explained that the learning outcome was not maximal due to complex and difficult learning materials, so it needed an optimal time. Besides, the unattractive learning approach and unavailability of independent learning caused the students' low motivation and interest in learning. Next, the use of learning media, such as e-learning, was not maximal.

2. Design

This stage is a process in overcoming the problem encountered in the analysis stage for designing the scenario or a learning model that is being developed. The activity in this process is that the researcher formulated the learning model that was going to be developed by developing the stages (syntax) of the blended learning model based on problem-based learning in Islamic studies.

In this stage, designing a blended learning model, modules, learning media, and learning equipment in Islamic studies referring to the collected information in the problem identification and need analysis stages. Learning equipment consists of Semester Learning Plan (RPS) and the course syllabus (SAP) used in a learning process. Besides, in this stage, focus group discussion was going to be performed by the supervisor and experts, five people in total, aiming at discussing the formulated design to achieve the study objective.

3. Development

After verifying through a Focus Group Discussion, the researcher revised it based on the suggestions and inputs given by experts. Subsequently, validation was conducted by experts for the following instruments, namely, validity, practicality, and effectiveness, to the research products. The following research products that have been produced will be validated.

Table 1
Validity test

No	Indicators	Aiken's V	Categories
1.	Model	0.84	Valid
2.	Learning Media: E-learning	0.85	Valid
3.	Teaching Material	0.87	Valid
4.	Lecturers' Guide Book	0.85	Valid
5.	Students' Guide Book	0.83	Valid

4. Implementation

After the product testing stage was valid, the next testing stage was practicality. This practicality trial test was performed for determining the usage of the blended learning model based on Problem-Based learning used by the lecturers and the students against the implementation of Islamic studies learning. The lecturers and the students gave their suggestions for improvement against the use of blended learning based on Problem-Based learning used in Islamic studies.

The questionnaire on the lecturers' practicality was distributed to five lecturers to test the practicality of the blended Learning model. Based on the lecturers' assessment against the Blended Learning model in Islamic studies can be explained in the table below.

Table 2
Lecturers' practicality

No	Indicators	%	Description
1	BL Model based on PBL	85	Practical
2	Learning Media: E-learning	87	Practical
3	Teaching Material	86	Practical
4	Lecturers' Guide Book	83	Practical

The questionnaire on the students' practicality was distributed to 32 students to test the practicality of the blended Learning model (Big Group) and 10 students to test practicality of the blended Learning model (Small Group). Based on the students' assessment against the *Blended Learning* model in Islamic studies can be explained in the table below.

Table 3
Students' practicality (Big Group)

No	Indicators	%	Description
1.	BL Model based on PBL	83	Practical
2.	Learning Media: E-learning	85	Practical
3	Teaching Material	82	Practical
4.	Students' Guide Book	82	Practical

Table 4
Students' practicality (small group)

No	Indicators	%	Description
1.	BL Model based on PBL	82	Practical
2.	Learning Media: E-learning	86	Practical
3	Teaching Material	81	Practical
4.	Students' Guide Book	83	Practical

The result of Blended Learning model development that had been validated and revised would be tested in the field on small and big scales. It consisted of the effectiveness test model. The data were collected from the questionnaire, pre-test, and post-test to the students.

a) T-test for the Post-test Data in Experimental Class and Control Class (Small Group)

From the result of the post-test given to the control and experimental classes, it can be identified and analyzed as follows.

Table 5
T-test for the post-test data in experimental class and control class (small group)

Independent Samples Test						
		t-test for testing Equality of Means				
		F	ig.			Sig. (2-tailed)
POST_KCL	Equal variances assumed	0.786	0.385	4.040	22	0.034
	Equal variances not assumed			4.040	21.277	0.034

Based on the result of the t-test from the post-test given to small groups in Table 5, it obtains a significance level from both classes. If it is divided by two, it will be equal to 0.034, indicating that it is less than 0.05 (sig 0.000 < 0.05). It can be inferred that there is a significant difference between the learning outcome of the control class and that of the experimental class. The post-test mean score in the control class (small group) was 70.58, while the post-test mean score in the experimental class (small group) was 80.50.

b) T-test for the Post-test Data in Experimental Class and Control Class (Big Group)

From the result of the post-test given to the control and experimental classes, it can be identified and analyzed as follows.

Table 6
T-test for the post-test data in experimental class and control class (big group)

Independent Samples Test						
		t-test for testing Equality of Means				
		F	ig.			Sig. (2-tailed)
POST_BSR	Equal variances assumed	0.035	0.852	5.791	56	0.000
	Equal variances not assumed			5.791	55.568	0.000

Based on the result of the t-test from the post-test given to big groups in Table 6, it obtains a significance level from both classes. If it is divided by two, it will be equal to 0.000, indicating that it is less than 0.05 (sig 0.000 < 0.05). It can be inferred that there is a significant difference between the learning outcome of the control class and that of the experimental class. The post-test mean score in the control class (big group) was 73.38, while the post-test mean score in the experimental class (big group) was 83.86.

5. Evaluation

Evaluation is the last step from the ADDIE model. This evaluation stage is a process for giving a score to the blended learning model that had been developed. Post-implementation evaluation is strongly required to be done to know the effectiveness of the blended Learning model that has been performed. In this evaluation stage, an improvement was conducted based on the inputs by experts in the FGD implementation, validation, practicality, and effectiveness.

DISCUSSION

The use of information technology in the learning process has been widely used as a result of the rapid development of information technology. One of the developments in technology-based learning is the blended learning model. In the use of the mixed

learning model is carried out to overcome the problem of learning time, distance between learners and lecturers, or not opening the learning process directly if it is done face-to-face. Likewise, what happened in the learning of islamic studies in Higher Education. The learning that occurs still has low interaction between students and lecturers, as well as interactions between students and other students in the class. The problem of the low student learning interaction that has been implemented. Blended learning is carried out for learning, because students experience problems, student learning interactions. The learning interaction which becomes the problem is due to the low learning outcomes of students, the low interaction process caused by students, among others, due to limited learning time. To overcome this problem, the researcher took the initiative to develop a problem-based learning model of blended learning in Islamic Studies courses which is thought to be able to assist students in increasing learning interactions.

The concept of blended learning also called hybrid learning, technology-mediated instruction learning, web-enhanced instruction learning, mixed mode instruction learning, emerged in the 1960s when computers appeared. Initially, blended learning was applied in enterprises because of its effectiveness, adaptability and flexibility. After receiving widespread attention and becoming popular, blended learning was accepted in traditional educational institutions. Today, the term is increasingly being used to describe the combination of web-based technology and face-to-face teaching, when compared to more traditional course structures (Bonk, & Graham, 2006).

Usually blended learning unites traditional physical classrooms with elements of virtual learning (Garrison, and Kanuka, 2004). It strengthens deep learning and practice skills (Lou, Chen, Tsai, Tseng, & Shih, 2012). In recent years, blended learning has been studied through disciplinary paradigms, as defined by Neumann, Parry and Becher (2002), such as in mathematics education (Trenholm, 2015), nursing education (Smith, Passmore, & Fraught, 2009), business education (Arbaugh, Bangert, & Cleveland-Innes, 2010), and rheumatology education (Stebbings, Bagheri, Perrie, Blyth, & McDonald, 2012).

The development of this model uses procedural development stages based on a needs analysis so that the problems in learning are known. To overcome the problems that have been identified, solutions are proposed to help overcome these problems. Before developing the Blended Learning model based on Problem Based Learning in the Islamic Studies course, it is necessary to conduct curriculum analysis and needs analysis so that the development process can be carried out with optimal results. This analysis is used as a reference in the development stage of this learning model

The development stage of a valid learning model must be based on the components of the learning model. Syntax, social systems, reaction principles, and support systems are all parts of the learning model. then in developing the Blended Learning model based on Problem Based Learning in the Islamic Studies course in this study it is also based on these 4 components. Based on the results of the validity test given by the expert, it can be concluded that the theoretical model of Blended Learning based on Problem Based Learning in the Islamic Studies course developed is on the four components of the

learning model.

Based on preliminary study, it has been determined that the education subject's learning process is ineffective. The results of the analysis were carried out based on the responses of respondents from each measurement indicator of the needs analysis questionnaire and the students agree to do learning with this Blended Learning model with an average score of 3.90,

The stages of product development in this research are using the ADDIE development model and also learning activity using the Blended Learning model is only given to the experimental class, be it small groups or big groups. And the control class is not given learning using the Blended Learning model. This study aims to determine the quality of student learning outcomes using the Blended Learning model and without using the Blended Learning model, the effectiveness of the Blended Learning model and the practicality of the Blended Learning model.

After carrying out the analysis stage, the development stage is carried out. This development stage consists of validating the products that have been developed by experts or validators. The following is a summary of the validation of the products that have been developed.

The results of the validity test of the Blended Learning based PBL model can be concluded that it is valid with an Aiken's V value of 0.83. Aiken's computations yield values ranging from 0 to 1, and the closer the validation result is near 1, the higher the coefficient. V value 0.84 is stated in the valid category.

The results of the validity test of teaching materials from the validator were valid with an Aiken's V value of 0.87. Aiken's computations yield values ranging from 0 to 1, and the closer the validation result is near 1, the higher the coefficient. V value 0.87 is stated in the valid category.

The results of the validity test of the Lecturer Guide from the validator on organizational aspects, writing format, content aspects and use of language and the evaluation system are valid with an Aiken's V value of 0.85. Aiken's computations yield values ranging from 0 to 1, and the closer the validation result is near 1, the higher the coefficient. Value V 0.85 is stated in the valid category.

The results of the validity test of the Student Guide from the validator on organizational aspects, writing format, aspects of content and use of language and the evaluation system are valid with an Aiken's V value of 0.83. Aiken's computations yield values ranging from 0 to 1, and the closer the validation result is near 1, the higher the coefficient. Value V 0.83 stated in the valid category.

The results of the E-learning validity test from the validator aspects, namely; E-learning components, display aspects, multimedia aspects and language aspects are valid with an Aiken's V value of 0.85. Aiken's computations yield values ranging from 0 to 1, and the closer the validation result is near 1, the higher the coefficient. V value 0.85 stated in the valid category.

After the development stage is complete, the implementation stage is carried out. This implementation stage is carried out to see the practicality and effectiveness of the Blended Learning model that has been developed. Practicality and effectiveness tests were carried out in small groups and large-scale groups. The results of this study indicate that the level of practicality of all products with practical categories and the fulfillment of the quality of the Blended Learning model selected and applied in the development method.

The results of the research on the practicality of the learning model based on the views or perceptions of the lecturers on the blended learning model according to the lecturers' responses were 85% and were practical criteria which meant that the practicality of the learning model could be implemented because it was easy to understand and easy to understand. Meanwhile, according to the perceptions of students who are divided into two groups, namely the test on a small scale and a large scale, which on a small scale shows that the student response is 82% and is on practical criteria and so is the test on a large scale which shows the student's response is 83% and are in practical criteria, this shows the blended learning model can be applied because it is easy to understand and understand.

The results of research on the practicality of teaching materials based on the views or perceptions of the lecturers on the blended learning model according to the lecturers' responses were 86% and were practical criteria which meant that the practicality of the learning model could be implemented because it was easy to understand and easy to understand. Meanwhile, according to the perceptions of students who are divided into two groups, namely the test on a small scale and a large scale which on a small scale shows that the student response is 81% and is on practical criteria and so is the test on a large scale which shows the student's response is 82% and is in practical criteria, this shows the blended learning model can be applied because it is easy to understand and understand.

The results of research on the practicality of e-learning learning media based on the views or perceptions of the lecturers regarding the blended learning model according to the lecturers' responses were 87% and were practical criteria which meant that the practicality of the learning model could be implemented because it was easy to understand and easy to understand. Meanwhile, according to the perceptions of students who are divided into two groups, namely the test on a small scale and a large scale which on a small scale shows that the student response is 85% and is on practical criteria and so is the test on a large scale which shows the student's response is 86% and is in practical criteria, this shows the blended learning model can be applied because it is easy to understand and understand.

The results of research on the practicality of lecturer guides based on the views or perceptions of the lecturers on the blended learning model according to the lecturers' responses were 83% and were practical criteria which meant that the practicality of the learning model could be implemented because it was easy to understand and easy to understand. Meanwhile, according to the perceptions of students regarding the practicality of student guides which are divided into two groups, namely the test on a

small scale and a large scale which on a small scale shows that the student response is 83% and is on practical criteria and so is the test on a large scale shows that the student response is 82% and is in practical criteria, this shows that the blended learning model can be applied because it is easy to understand and understand.

Based on the effectiveness test, it can be seen that the Blended Learning model can improve student learning outcomes, this can be seen from the results of the Posttest taken from two times, namely in small groups and on a large scale. The small group posttest was 82.5, where the pretest score was 69.42. While the large group posttest is 82.68 where the pretest score is 65.45, from the posttest results it can be seen that student learning outcomes have increased after using the Blended Learning model. Based on the t test it also explains that there are significant differences between the group of students who do not use the Blended Learning model and the group of students who use the Blended Learning model.

This finding is supported by Mohd et al. (2016); Al-Rahmi et al. (2018); Fisher et al. (2018) where the researchers found that students' satisfaction, self-efficacy, and pleasant experiences from adopting blended learning practices were mostly related to the ease of using the platform in accessing online content which affected the quality and impact of student learning outcomes. In addition, the findings of Savara and Parahoo (2018) reveal that students' ability to integrate technology positively affects the quality of their learning.

CONCLUSION

Based on the result and the discussion in this study on the blended learning model in Islamic studies, the following conclusions can be drawn: The blended learning model based on Problem-Based learning that has been developed using the procedures in the ADDIE model results in a good learning model and equipment for optimizing the achievement of learning goals in Islamic studies. The analysis result of the development of the blended learning model based on Problem-Based learning shows that the validity of the product and all assessment items are categorized as valid; the practicality based on the perception of both lecturers and students shows that it is practical. Based on the t-test, it is obtained that the blended learning model based on Problem-Based learning is effective to be implemented in Islamic studies. The development of the E-learning-based Blended Learning model aims to serve as an empirical reference to be able to improve the quality of learning according to the needs of students, where they should act as subjects of the learning process itself so that students are able to build their own knowledge. The product from the content-validated development results has practicality so that it can be used as a reference in the development of models and strategies that are further developed to improve the limitations of the development of Blended Learning based on E-learning. The products produced can help students to know the outline of learning before the learning is carried out, so that students are easy to manage themselves in dealing with Islamic studies learning. Furthermore, the achievement of learning outcomes in the experimental class with the products of the developed model has a positive impact in supporting the learning achievement that has been determined by the study program in the established curriculum. The E-learning-based Blended

Learning model is assessed by educators as a model that can help practically, connecting the material presented in the module with procedurally prepared scenarios in the teacher's manual, having an impact on accelerating learning information both learning strategies, scenarios and methods of assessment are structured constructively.

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