Development of Blog-Based E-Learning Tools for Islamic Education Courses

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Abstract

A research about developing e-learning tools was considered necessary to do towards the new normal era because the fact on the ground indicated that there were many teaching sources lacked of preparation when doing online learning. The kind of research that was implied was development research with ADDIE model which is Analysis, Design, Development, Implementation, and Evaluation. The subject was students of Tadris Bahasa Inggris major in Sekolah Tinggi Agama Islam Negeri Majene. The research development phases were firstly, analysis phase where it was found that the media used in online lecture were restrictedly Zoom application and Google Classroom with all their deficiency; Secondly, design phase done to follow up the issues found in the previous phase, that is by designing Learning Management System (LMS); Thirdly, development phase where the researcher made LMS based blog that completed with menus: RPS, RTM, Teaching Material, Discussion; where it was found that the media used in online lecture were restrictedly Zoom application and Google Classroom with all their deficiency; Fourthly, implementation phase done through trials of LMS four times of meeting; Lastly, evaluation phase where the evaluation results of the developed e-learning tools were considered already valid, very practical and effective.

Keywords: ADDIE, Development Research, E-Learning Tools

Introduction

Nowadays the most reliable program of the higher education is “Kampus Merdeka, Merdeka Belajar”. This program is in accordance with the 5K mission of the Minister of Education, which stands for Ketersediaan, Keterjangkauan, Kualitas atau Mutu, Kesetaraan serta Keterjaminan Layanan Pedidikan. The struggles of the Minister of Education to build an education system which tends to be freedom learning have three main pillars, i.e.: First, the lecturers as the driving force are compulsory to possess such professional competence and they are able to innovate in enhancing their students to be grown and succeed. Second, Mendikbud stated that in order to change it is indeed a difficult thing. Third, we need policy to provide the program (Nurwardani, 2020).

The real actions of the Minister of Education’s to realize the freedom learning for students happen in the program of Kuliah Dalam Jaringan Indonesia Terbuka serta Terpadu that is ‘Sistem Pembelajaran Daring (SPADA) Indonesia’ which as it was launched by Higher Education General Directorate had been approved by Learning Directorate in October, 2014 named the program of ‘Pembelajaran Dalam Jaringan Indonesia Terbuka serta Terpadu’ (Direktorat Pembelajaran dan Kemahasiswaan, Direktorat Jenderal Pendidikan Tinggi Kemdikbud RI, 2014). The program is in accordance with ‘Penyelenggaraan Pendidikan Jarak Jauh di Perguruan Tinggi’ that is in Permendikbud Nomor 109 tahun 2013.

At the end of each semester P2M organizes an evaluation of the attainment of standard qualities that had set through activities of Audit Mutu Akademik Internal (AMAI). One becoming the audit goals is the learning process and it became the finding which no real evidence of achieving the SN-Dikti research in learning existed yet. Therefore, the team of auditors gave some advice to do an effort in research so that it could strengthen the learning process (P2M, 2019).

Ilmu Pendidikan Islam course is one of the goals in the arrangements of AMAI that has been done by P2M recently. In accordance with findings by the team of auditors in order that the majors take an effort to apply via online method, as it is applied at Sekolah Tinggi Agama Islam (STAIN) Majene accordingly. The online lectures that yet utilize information and communication technology to be reached out anytime and anywhere by each of the students must be appropriate with Standar Nasional Pendidikan Tinggi (SN-Dikti), especially in Standar Nasional Pendidikan (SNP) which constitutes the minimum criteria related with the learning compulsory to apply at the grade of higher education (Hartanto, 2016).

One of the goals that SN Dikti has is to achieve the quality in accordance with the criteria which had set through arrangements of learning. STAIN Majene as the a part of the organizers in higher education has set standard qualities through Pasut Penjaminan Mutu (P2M) by elaborating the distinction of STAIN Majene – excellent and malabi, SN Dikti, as well as Religious Standard of Perguruan Tinggi Keagamaan Islam (PTKI).

At the end of each semester P2M organizes an evaluation of the attainment of standard qualities that had set through activities of Audit Mutu Akademik Internal (AMAI). One becoming the audit goals is the learning process and it became the finding which no real evidence of achieving the SN-Dikti research in learning existed yet. Therefore, the team of auditors gave some advice to do an effort in research so that it could strengthen the learning process (P2M, 2019).
in researching to strengthen the learning process and applying E-learning, so it is necessary to do a research related to the process of E-learning – one of the process is the E-learning tool especially of the Ilmu Pendidikan Islam course in Tarbiyah and teacher training majors.

Based on previous researches related to online learning, there were several research titles, that is: first, Online Learning in the Middle of the Covid-19 Pandemic by Ali Sadikin and Freni Hamidah. The result of the research showed that there were some students got problems in comprehending the material of a course given via online learning. Teaching materials were usually presented in a literature form which the students could not fully understand (Sadikin & Hamidah, 2020). Secondly, a research about Students’ Responses in Learning Process of the Online Course by Sri Widayati. The result of the research showed that online learning required Semester Learning Plan/RPS (Rencana Pembelajaran Semester), well-made learning materials, either in PDF (Portable Document Format), PPT (Power Point) or learning videos that supported the students to understand the material faster and to do the online learning assignments maximally (Widayati, 2020). According to two results of the researches above, it could be concluded that learning tools such as RPS and learning materials were enormously necessary to support the implementation of online learning.

In Higher Education National Standard they have regulated that each of 1 Course Credit (SKS) of a course consists of 50 minutes for offline learning, 60 minutes for structured assignments, and 60 minutes for self-directed learning every week per semester (Permendikbud RI No. 49, 2014). Therefore, learning tools in learning plans that required to be developed by teachers at least include Semester Learning Plan/RPS, learning materials and Students’ Assignment Project/RTM (Rancangan Tugas Mahasiswa) (Mustofa et al., 2019).

E-learning tool development is a necessity in line with the requirement of online learning implementation in this new normal era. That statement is related to the facts on the ground showed that dozens of the educators, both teachers and lecturers have lacks of preparation when executing the online learning, and Ilmu Pendidikan Islam course at STAIN Majene is no exception. The preparation of online learning implementation of Ilmu Pendidikan Islam course at STAIN Majene was assessed still minimum in aspects of media or the online learning application, such as Zoom Meeting and Google Classroom in which those applications still have deficiencies especially for students at STAIN Majene. Likewise, at the aspect of teaching material for online learning, they found the fact that in Ilmu Pendidikan Islam course they lacked of the availability of teaching materials. Furthermore, about the students’ assignments, course related lecturers had not yet arranged the Students’ Assignment Project/RTM properly. Based on the mentioned facts, the researcher initiated to do development of online/E-learning tools in Ilmu Pendidikan Islam course, that is: Semester Learning Plan/RPS, Students’ Assignment Project/RTM, Online Teaching Material and Online Learning Media.

Based on the background above, formulated main question was how were the phase of E-learning tools in Ilmu Pendidikan Islam course at STAIN Majene?

Method

The kind of research that was implied in this research was development research with ADDIE model which is a development research model consisting of five phases, that is: Analysis, Design, Development, Implementation, and Evaluation (Tia Dwi Kurnia, 2019).

Subjects who involved in collecting the research data were lecturer handling Ilmu Pendidikan Islam course, expert validators, as well as students of Tarbiyah and Teacher Training Major STAIN Majene. Then the instruments of data collection that used in this research were as follows:

1) Observation Sheet

The observation sheet used in this research was an observation sheet of learning tool implementation in order to know the practicality of tools having been developed. The aspects that would be observed were the implementations of all developed tools, that is RPS, Teaching Material, RTM, Learning Video, Discussion Forum, and Program Evaluation.

2) Interview guidance

This interview guidance was used to get early data before doing the learning tool development in order to do the analysis activity and designing learning tools (Punaji Setyosari, 2013). On top of that, this interview activity was done to know the practicality of developed tools.

3) Questionnaire

There are two questionnaires in this research. The first is questionnaire from expert validator. This is to know the validity of the e-learning tools. The second is questionnaire for students’ response in order to know the effectiveness of the e-learning tools.

Results and Discussions

The Phases of E-learning Tool Development

a. Analysis Phase

In the analysis phase, the activities that would be done were as followings:
The first was identifying issues consisting of the activity of searching information about problems and common needs in the implementation of the e-learning tools of Ilmu Pendidikan Islam course through interviewing with the lecturer handling the course. The information that had been acquired from the interview result, that is: that the implementation of the online lecture of Ilmu Pendidikan Islam course to date was only done infinitely in the applications, Zoom Meeting and Google Classroom. The lecture done via Zoom Meeting fundamentally was very effective because its system was face-to-face which means that between the lecturer and students and the opposite they could interact each other even though it was just online. But, it was known that the lecture via Zoom Meeting also had some failures which were that to access Zoom Meeting needed big enough quota of internet package, where the students’ condition was not all having enough to attend the lecture via Zoom Meeting. On top of that, one of the failures of that application was that the duration of a lecture was just 40 minutes maximally, so that this issue made the lecture disturbed because after 40 minutes online, the application would be automatically shut down and must log in again if they wanted to continue the lecture. Another issue which became a problem in the lecture implementation via Zoom Meeting was that there were many of the students who turned off their video cam so as the lecturer could not be able to monitor or to ensure whether those students listened to the on-going lecture or not.

Material analysis was doing an analysis towards Ilmu Pendidikan Islam course connected to the attainment of the major study. Based on the result of the material analysis having been done, it was found that there were some lecturing materials that were repetitive or overlapping with another material of different courses. For instance, the material Proses Belajar Mengajar dalam Perspektif Pendidikan Islam was found that this material should be completely discussed in a course of Pengelolaan Pembelajaran. Thus, it was obvious that this material must be replaced by another that more relevant.

Referential analysis was doing an analysis towards the availability and the variety of the references to bolster the course of Ilmu Pendidikan Islam. The referential analysis constitutes the follow-up of the material analysis result. It was found before that there was one of the materials omitted in the course if Ilmu Pendidikan Islam because it was regarded repetitively, so it needed an analysis of the available references to polish up the material of that course. The material analysis was also done to enrich the reference of the lecture of Ilmu Pendidikan Islam, either of its quantity or quality of the references because based on the analysis result done at the existing references it was found that the existing references to support the lecture of Ilmu Pendidikan Islam course was still lacking.

b. Design Phase

The description of activities done in this design phase was as follows:

1) Examining the issues and designing the e-learning tools suitable to overcome the identified problems based on the issues found in the previous phase, it was known that the problem that the e-learning lecture faced especially in the course of Ilmu Pendidikan Islam was the application, Zoom Meeting used during online lecture was necessary to review because of some failures stated in the previous phase. Some of the relevant internet-based applications could be recommended, such as Webblog.

2) Making designs of RPS, Teaching Material, RTM and media based on the material analysis and the reference having been done before. After figuring out the students’ condition of Tarbiyah and Teaching department, the internet-based application that became alternative for the implementation of Ilmu Pendidikan Islam course was Webblog. Therefore, the next step having to do was designing learning tools that would be used in the lecture. The lecture tools required to prepare to run the online lecture was RPS, Online Teaching Material which was e-Book, website link to get related materials, online journal link, and some printed book titles that would be the references during the lecture.

3) Designing Learning Management System (LMS) based internet as the vessel or media of the implementation of online learning. The learning management system that would be used for online learning of the course of Ilmu Pendidikan Islam was Webblog. The Webblog was designed particularly to be composed as the media in the implementation of online lecture of Ilmu Pendidikan Islam course. That Webblog accommodated e-learning tools including RPS, RTM, Teaching Material, Learning Videos, Discussion Forum, Quiz, Middle Test, Final Test, as well as the learning program evaluation.
c. Development Phase

The description of the activity in the development phase is as follows:

1) Making LMS in the form of Webblog. The LMS of developed Webblog can be seen in the following web page: https://kuliahusri12.blogspot.com/

On that web page, there is a menu of Ilmu Pendidikan Islam that includes some sub-menus which will be the media to accommodate the developed e-learning tools. The sub-menus are as follows:

a) RPS: In RPS sub-menu it accommodated the Semester Learning Plan of Ilmu Pendidikan Islam course that had been adapted with the e-learning methods as attached. The significant changes of the developed RPS from the previous RPS could be seen in the e-learning media that would be used, learning method, discussion method, students’ assignment and the scoring format used.

b) RTM: In RTM sub-menu it accommodated Students’ Assignment Program that was adapted with the implementation of e-learning with e-learning principle demanding student’s self-sufficiency and the lecturer as the facilitator.

c) Teaching Material: In Teaching Material sub-menu it accommodated online teaching materials that became references of the lecturing materials. The online teaching materials which were provided included a link of e-book related to the course of Ilmu Pendidikan Islam. There were some other website links that could be visited to download such materials for free.

d) Learning Video: In Learning Video sub-menu it provided creative learning videos made by students in groups related to the material distribution in the early semester of the lecture. The learning videos were the group assignments of students’ in which the theme was related to the lecturing material. Before being posted on Webblog, the learning videos were validated by the lecturer handling the course to ensure that the material shown was suitable for the lecturing achievement indicators. The scoring criteria of the learning videos were also provided in this menu in the form of a scoring rubric of learning videos.

e) Discussion Forum: This sub-menu was a forum for discussing materials based on learning videos that had been given and reading materials that also had been prepared by students which became their group assignment and the provided online teaching materials. The lecture holding the course gave a question about material to further be answered by each student. The answer from a student then would be responded by another student. Scoring criteria of this discussion were described in discussion scoring rubric.

f) Quiz: The quiz sub-menu was a web page was prepared to evaluate the level of students’ comprehension about the material given every week. The quiz sub-menu would be linked to Google Form so that easing the lecturer to check the answers given by students.

g) Program Evaluation: This sub-menu was a web page provided to know the effectiveness of the e-learning tools that had been developed for supporting the implementation of the online lecture of Ilmu Pendidikan Islam course. This sub-menu was also linked to Google Form to ease the researcher to analyze research data related to developed tool effectiveness.

2) Asking validation request to experts (validator) about the e-learning tools that had been developed. The validation of the developed e-learning tools was validated by two validators consisting of a material expert validator and a media expert validator. Validation sheets were provided in the form of Google Form to then be filled by validators. The material expert validator in this research was Dr. Hamzah S. Fathani, M.Th.I. who is a regular lecturer of STAIN Majene in which he masters Ilmu Pendidikan Islam major. The media expert validator in this research was Prof. Dr. Muhammad Yaumi, M.Hum. who is a regular lecturer of Universitas Islam Negeri Alauddin Makassar in which he masters Education Technology major.

The validating implementation by the media validator took place in October 10th of 2021, whereas the material validator filled the validation sheets in October 12th of 2021.

3) Doing revisions towards the developed learning tools according to the advices, inputs and assessments from the validators. According to the validation result by the material and media experts in the previous phase, the researcher found data of advices and inputs by validators related to the e-learning tools that had been developed. The media validator suggested to fit out the discussion forum with a discussing instruction or guidance for students in order to ease the flow of the discussion. He also suggested to provide a discussion scoring rubric. On top of that, he also approached the learning videos sub-menu. Talking about that, the validator suggested to complete the learning video sub-menu with a scoring rubric.

Then, the material validator suggested to add a regulation about policy for students in the Students’ Assignment Program. The policy for students was intended to accommodate if a student was late to
finish assignments because of a bad condition of internet signal at their home.

4) Doing data analysis related to the developed e-learning tool validity. Thus, the validation of the developed e-learning tools of Ilmu Pendidikan Islam course was in very valid category with 3.56 score of validity. Based on the result of the validation scoring of e-learning tools, the tools then would be tested. This case was in line with the regular scoring of both expert validators who said that the e-learning tools were reasonable to be tested with a few revisions.

d. Implementation Phase

The trials of the developed e-learning tools were done to the subject of research, that is the students of the third semester of Tadris Bahasa Inggris major in Tarbiyah and Teacher Training faculty.

The trials of e-learning tools in Ilmu Pendidikan Islam course began with the technical explanation, the explanation was done via offline. Then, the trials were done four times of meeting. In the implementation phase the researcher also obtained data about the learning tool feasibility, students’ response, and the study result of students, as follows:

1) The learning tool feasibility

Data about the feasibility of e-learning tools were obtained from the observation result through the observation sheets of the e-learning tools feasibility. The observation was done by the lecturer handling Ilmu Pendidikan Islam course that also one of the validators that is the material expert in this research. The observation result showed that the developed e-learning tools were valued very practical. Those were in line with comments of the person responsible with the course, as the observer in this research. The comment was as follows:

“Secara umum perangkat pembelajaran ini cukup bagus, sebab tindakan yang diharapkan dalam sistem belajar luring atau tatap muka sudah ada di dalamnya. Mahasiswa tinggal memilih bagian mana yang dibutuhkan dan selanjutnya mereka klik dengan syarat media atau alat komunikasi yang digunakan mahasiswa dipastikan terhubung dengan internet.”

2) Students’ Response

The response of students towards the developed e-learning tools was obtained from survey of the implementation of online learning via Google form. The survey was filled by 19 students who were students of Tadris Bahasa Inggris major that were active to attend the lecture of Ilmu Pendidikan Islam, odd semester, 2021/2022 academic year.

3) Study Result of Students

The study result of students was obtained from 4 meetings of trials that accumulated from group scores and individual scores. The group scores were the scores from group assignments to make learning videos and papers. The individual scores were obtained from participation scores at discussion forum and assignments on quiz menu. The data of the study result of students showed that all 19 students were asserted succeed in Ilmu Pendidikan Islam course.

e. Evaluation Phase

1) Validity of E-Learning Tools

The validity of the developed e-learning tools was seen from the valid result by the expert validators that is the media expert and material expert that could be presented as follows:

<table>
<thead>
<tr>
<th>No</th>
<th>Component</th>
<th>Material Validator Score</th>
<th>Media Validator Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Interface of Learning Management System</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Semester Learning Plan</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Students’ Assignment Program</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Teaching Material</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>Learning Video</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Discussion Forum</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>Quiz/Middle Test/ Final Test</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>Program Evaluation</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Average Score</strong></td>
<td><strong>3,875</strong></td>
<td><strong>3,25</strong></td>
</tr>
</tbody>
</table>

Then, the validation result by both of the validators was averaged, as follows:

$$V = \frac{3.875 + 3.25}{2} = 3.56$$

In keeping with the category criteria, the validations of the e-learning tools were as follows:
3.5 ≤ M ≤ 4 Very Valid
2.5 ≤ M < 3.5 Valid
1.5 ≤ M < 2.5 Valid Enough
M < 1.5 Not Valid

Thus, the validation of the developed e-learning tools of Ilmu Pendidikan Islam course was in very valid category with 3.56 score of validity.

2) Practicality of E-Learning Tools
The practicality of the developed e-learning tools could be seen from data about the feasibility of e-learning tools. The data were obtained from observation result of the feasibility of online learning. The observation was done by the lecturer of Ilmu Pendidikan Islam course who was also one of the validators that is the material expert in this research. The scales used in observation sheets were 1) Bad; 2) Good Enough; 3) Good; 4) Very Good.

The followings were the description of the obtained observation result:

<table>
<thead>
<tr>
<th>No.</th>
<th>Aspect</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RPS</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>RTM</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Bahan Ajar</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Video</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>Forum Diskusi</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Kuis</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Evaluasi</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>Total</td>
<td>25</td>
</tr>
</tbody>
</table>

Based on the data above, the total score obtained was 25. The practicality of learning tools was obtained by the following formula:

Practicality Score = \( \frac{\text{Total Score}}{7} \)

\[ = \frac{25}{7} = 3.57 \]

3) Effectiveness of Online Learning
The data about the effectiveness of online learning were obtained from students’ response about the implementation of online learning by using the developed learning tools from study result of students using the developed learning tools. The followings were the description of effectiveness of the online learning tools:

Firstly the response of students towards the developed e-learning tools was obtained from a survey of online learning implementation via Google form. The survey was filled by 19 students who were the students of Tadris Bahasa Ingris major that actively attended the lecture of Ilmu Pendidikan Islam, odd semester, 2021/2022 academic year. The result of survey was described as follows:

Average index = \( \frac{\sum \text{index for each respondant}}{n} \) = \( \frac{659}{19} \) = 34.7

Based on the result of index calculation if it was synchronized with the perception index in the table above there would be considered that the developed e-learning tools were in effective category.

Secondly, the students response showed that the developed e-learning tools categorized effective was in line with the result of study results of students that explained, as follows:

The study results of students obtained scores in 4 meetings of trials accumulated from group scores and individual scores. The group score was a score from making learning videos and papers, and the individual score was from participation score in discussion forum and assignments in the quiz menu. The accumulation of the students scores could be seen at a table, as follows:

<table>
<thead>
<tr>
<th>Score</th>
<th>Quantity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>11</td>
<td>58%</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>26%</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>5%</td>
</tr>
</tbody>
</table>
According to the data above it could be seen that the students study results mostly got 4 score that is 58% or 11 from 19 persons and those least got 2 score that is 5% or 1 from 19 persons. Then, related to education guide of STAIN Majene 47 article of Learning Result Scoring and Score Conversion about score annotation and graduation status, it could be concluded that all students, 19 persons were considered passed the course of Ilmu Pendidikan Islam. By the succeeding of the whole students who attended Ilmu Pendidikan Islam course of 2021/2022 academic year it indicated that the e-learning tools which had been developed were already effective.

Conclusion

Based on the research founding had been described before it could be concluded that:

The development of e-learning tools in Ilmu Pendidikan Islam course began with first phase, analysis consisting of problem-faced identification activity and basic needs in online lecture, that is developing RPS, RTM, teaching material and media/LMS that could cover the condition of students. Second phase, design was designing learning tools through consultation with education technology experts. Third phase, development was making and modifying e-learning tools of a blog to next be validated by expert validators. After the validation process, the e-learning tools were revised in line with the feedbacks of validators until they were valuable to be tested. Fourth phase, implementation was done 4 times of meetings. Fifth phase, evaluation was done to know the effectiveness as well as the practicality of the developed e-learning tools.

Then from the result of evaluation in the final phase, the development process got data that showed that the e-learning tools in Ilmu Pendidikan Islam course which had been developed was in effective category suitable with the student’s response and students study result. Upon the practicality of the developed e-learning tools it was obtained from observation results of feasibility of e-learning tools in Ilmu Pendidikan Islam course. The observation result showed that the developed e-learning tools were in very practical category.

References


Curriculum Vitae