DEVELOPMENT OF MOODLE-BASED E-LEARNING MEDIA ON THE BASIC COMPETENCY OF A JOURNAL SPECIFICALLY FOR STUDENTS CLASS XI IPS ODD SEMESTER AT MA MIFTAHUL MIDAD LUMAJANG

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Abstract

The purpose of this study is to produce e-learning media based on moodle on the basic competencies of a special journal for class XI IPS students, to determine the feasibility, the level of student attractiveness, and the effectiveness of the product. This development research uses the 4-D model suggested by Thiagarajan et al., but this research is limited to the development stage. The final media is produced after passing the validation stage by content/material and design experts, as well as product trials twice (limited and wider). Limited trials were conducted on 10 students of class XI IPS 2 and more broadly on 33 students of class XI IPS 1. The data analysis techniques used included expert validation, attractiveness level test, and media effectiveness test. The average result of stage II validation by experts is 97% with very feasible interpretation criteria. In a wider trial, the results of the student response scoring to the media were 90.91% (very interesting); and the average value of student learning outcomes increased from 75.45 to 79.42 which indicates that this media is effective. The test results show that the Moodle-based e-learning media is feasible, interesting, and effective. The final product can be used by students of class XII IPS as a tool in studying accounting and can also be developed in other basic competencies.

Kata kunci:
media e-learning
berbasis moodle

Abstrak

Tujuan penelitian ini adalah menghasilkan media e-learning berbasis moodle pada kompetensi dasar jurnal khusus untuk siswa kelas XI IPS, untuk mengetahui kelayakan, tingkat daya tarik siswa, dan efektifitas produk. Penelitian pengembangan ini menggunakan model 4-D yang disarankan oleh Thiagarajan et al., namun penelitian ini dibatasi sampai pada tahap pengembangan. Media final dihasilkan setelah melewati tahap validasi oleh para ahli isi/materi dan desain, serta ujicoba produk sebanyak dua kali (terbatas dan lebih luas). Ujicoba terbatas dilakukan pada 10 siswa kelas XI IPS 2 dan lebih luas pada 33 siswa kelas XI IPS 1. Teknik analisis data yang digunakan meliputi validasi ahli, uji tingkat daya tarik, dan uji tingkat efektifitas media. Rata-rata hasil validasi tahap II oleh para ahli adalah sebesar 97% dengan kriteria interpretasi sangat layak. Pada ujicoba lebih luas diperoleh hasil skoring respon siswa terhadap media sebesar 90,91% (sangat menarik); dan rerata nilai

hasil belajar siswa yang meningkat dari 75,45 menjadi 79,42 yang menunjukkan bahwa media ini efektif. Hasil ujicoba menunjukkan bahwa media e-learning berbasis moodle layak, menarik, dan efektif. Produk final tersebut dapat dimanfaatkan oleh siswa kelas XII IPS sebagai alat bantu dalam mempelajari akuntansi dan dapat dikembangkan pula pada kompetensi dasar lainnya.

1. Introduction

The accounting learning process in class XI IPS MA Miftahul Midad Lumajang has been using ICT-based media (Information and Communication Technology), but the use of these media does not provide maximum results. The teacher informs that the media used has not been attractive to students, indicated by the attitude of students who still speak for themselves and pay less attention when the learning process is in progress. The lack of student attention in following the lesson causes students to find it difficult to understand a material. The use of these media is also less helpful for teachers in achieving learning objectives. This is indicated by the document obtained from the teacher which shows the average value of the students' last daily test results on the reversing journal material that is not yet optimal, which is 73.

The explanation above shows that the obstacles in these learning activities lie in the learning media used are still less attractive and have not achieved the learning objectives. Haggarty and Keynes (Unal 2006:510) explain that in order to improve the learning process so that learning objectives can be achieved properly, efforts are needed to improve student understanding and materials used for learning by developing appropriate learning media. In addition, with the appropriate learning media, it is hoped that a conducive learning environment will be created so that the learning process can run efficiently and effectively (Munadi, 2008; Nicholls, 2002).

Daryanto (2011:4) suggests that the media is one component of communication, namely as a messenger from the communicator (teacher) to the communicant (students). Meanwhile, according to Gagne & Briggs (in Arsyad, 2011: 4) learning media includes tools that are physically used to convey the contents of learning materials consisting of books, tape recorders, cassettes, video cameras, video recorders, films, slides (picture frames), photographs, pictures, graphics, television, and computers.

One of the Basic Competencies (KD) delivered by the teacher to class XI IPS students at MA Miftahul Midad Lumajang is a special journal. There are five types of special journals whose recording is carried out according to the types of daily transactions that occur, such as buying and selling activities carried out on credit or cash, as well as transactions for returning merchandise. The recording activity always links two different sides. On the one hand there are accounts that are increasing, on the other hand there are accounts that are decreasing. So, students must really understand the technique of placing accounts

with the right name and position in each journal. The characteristics of the KD special journals that are so complex require the teacher to package the material so that this KD can be conveyed in an interesting way and can achieve learning objectives. To achieve this goal, it is necessary to develop appropriate and attractive media to convey it. Several aspects that need to be considered in choosing a learning media include: the suitability of the media with the learning objectives to be achieved; conformity with the characteristics of students; suitability with student learning styles and teacher abilities; practicality and safety; and environmental conditions, facilities, and the time in which the teaching and learning process takes place (Sanjaya, 2008; O'Neill, Singh & O'Donoghue, 2004; Nicholls, 2002; NEA, 2015; Bennet & Bennet, 2008). Thus, one of the appropriate media is e-learning media, because combining traditional classroom face-to-face methods with online learning is a solution to overcome the universal problem of communication limitations in the classroom (Chan, 2012; Hussin, Bunyarit, & Hussein, 2009; Kocur & Košc, 2009). Education and knowledge created can increase rapidly if supported and enhanced by using technology (Nistor, 2013).

There are two activities in e-learning (Caputi & Garrido, 2015) namely communication activities (e-mail, forums, conferences, etc.) and exploration activities (navigating content on the web), both of which are in an LMS (Learning Management). systems). LMS is a platform for administrative activities, documentation, and delivery of e-learning content, with a very large capacity for students and can be adapted to the needs, one of which is a modular object-oriented dynamic learning environment or commonly referred to as moodle (Despotović-Zrakić). , et al., 2012; Suriadhi, 2014).

Moodle-based e-learning media is a software package that functions for internet and website-based learning activities. This media is in the form of a web page that has a feature to present courses where teachers can upload teaching materials, learning videos, powerpoint presentations, discussion forums, and quizzes related to special journal materials in it. Moodle can facilitate student interaction with students or teachers with students in real time to be able to exchange opinions, share knowledge, or solve problems encountered during learning. Because Moodle was built with a constructivist social approach to educational activities, it can also be integrated with other systems or technologies as needed (Despotović-Zrakić, et al., 2012; Rice, 2011; Wikipedia, 2010). According to Haughey (in Rusman et al., 2012:291-292) Moodle-based e-learning media belongs to the web-centric course media model, which functions as a support for improving the quality of learning carried out in the classroom. Teachers can guide students to find and determine sites that are relevant to teaching materials, present material on pages with an attractive appearance so that students are interested, and communicate by utilizing discussion forum facilities, because the biggest contribution in the learning process is interaction between students and teachers. Ewing and Miller, 2002; Moore, 1989; in Lanzilotti, Ardito, Costale, & De Angeli 2006). Some of the advantages of e-learning media according to the UNEJ P3AI-LP3 institution (in Rusman et al., 2012: 57-58) a Based on the explanation above, the goal to be achieved in this research is to produce

learning media in the form of Moodle-based e-learning media that is feasible, interesting, and effective in accounting subjects for basic competence special journals for odd semester Social Science class XI students at MA Miftahul Midad Lumajang.

re (1) flexibility in terms of time and place,

because the use of this media does not depend on the effective school hours; (2) flexible of facilities and learning environment, because students can access e-learning with various facilities; (3) the atmosphere is not stressful, because students can be more flexible and dare to do exercises online; and (4) online materials that can be refreshed at any time.

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2. Method

This research is a Moodle-based e-learning media development research which refers to the procedural model proposed by Thiagarajan et al., namely the 4-D model (define, design, develop, & disseminate). The model is adapted to the needs of research conducted on a small scale, using only three stages (define, design, & develop). The final media is produced after passing the validation stage by content/material and design experts, as well as product trials twice (limited and wider). The limited trial was conducted on 10 students of class XI IPS 2 and more broadly on 33 students of class XI IPS 1 at MA Miftahul Midad Lumajang.

Data collection methods used in research activities are the questionnaire method to obtain data related to validation by experts and the level of attractiveness; interviews to obtain information from test subjects; test method to determine the level of media effectiveness; and documents to collect other data supporting research activities.

Data analysis techniques used include validity testing by material/content experts and design experts; test the level of attractiveness of the media that is known from the data obtained from the results of the student response questionnaire in a limited and wider trial; and test the effectiveness of the media seen from the value of learning outcomes obtained by students.

3. Results and Discussion

The results of the validation and testing steps of moodled-based e-learning media are explained as follows:

Validation Results

The percentage scores obtained from each content/material validator in the validation phase I were 75.00% and 83.33%, with an average of 79.17%. The percentage scores obtained from the results of design validation by learning media design experts in stage I were 66.67 and 77.78%, respectively, with an average of 72.22%. The score shows that the media is decent, some criteria are not revised according to the suggestions of the validators, then the media is validated on validation. Phase II shows that moodle-based e-learning media is feasible to be used in learning activities at MA Miftahul Midad Lumajang without revision.

Limited Trial Results

Attractiveness Level Test Results in Limited Trials

The average percentage score obtained from this stage is 81.00%, this score indicates that

the Moodle-based e-learning media is already attractive. The distribution of the percentage scores on each indicator in the questionnaire is presented in the table below.

Tabel 1. Hasil Skor Setiap Indikator Angket Respon Siswa

Indikator	Skor Perolehan
1. Kelengkapan materi	70.00%
2. Kejelasan bahasa yang	90.00%
3. Kelengkapan isi media	70.00%
4. Kejelasan bahasa pada soal	80.00%
5. Kemudahan pengoperasian	90.00%
6. Ketertarikan pada tampilan	70.00%
7. Video pembelajaran	70.00%
8. Rasa senang dalam	90,00%
9. Memotivasi dalam	90.00%
1 Minat dalam	90,00%
Rata-rata	81,00%

Based on table 1, it can be seen that there are four indicators that get the lowest score of 70.00%, namely on indicators number 1, 3, 6, and 7. Improvements made to indicator number: (1) by more complete special journal material consistently ignoring aspects of conciseness and ease of language used, as well as arranging material in teaching materials in a more animative and interesting way; (3) by completing the data link in the form of media in the form of a powerpoint presentation that is more compatible with all PCs used in general; (6) by more organizing and arranging the block panels on the cider so that the media display looks neater; and (7) providing learning video links using third-party extensions, namely on the youtube.com page to make it easier for students to download learning videos. 2) Test Results of the Effectiveness Level in Limited Trials

The level of media effectiveness is seen from the value of learning outcomes obtained by students. The value of learning outcomes tested are the values of ten test subjects in the previous material (recording of merchandise inventory) who have not used e-learning media, with the value of learning outcomes in special journal materials that have used moodle-based e-learning media. The following is the distribution of pretest and posttest scores presented in chart 1.

	< 54	55-59	60-64	65-69	70-74	75-79	80-84	85-100
Pretest	1	1	1	0	0	4	2	1
Posttest	0	0	0	2	1	3	2	2
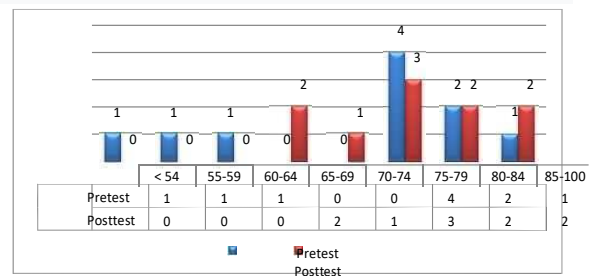
Bagan 1. Distribusi Nilai *Pretest* dan *Posttest* pada Ujicoba Terbatas

In chart 1 it can be seen that there is a positive change in the results obtained by students. The number of students with scores between 65-69, 70-74, and 85-100 has increased, and there are no more students who score below 64. This shows that moodle-based e-learning media can improve student learning outcomes.

4. Conclusion

The product developed in the form of Moodle-based e-learning media that has passed the validation, trial and revision stages has become an attractive, efficient, and effective final product. The resulting product contains several contents including: (1) instructions for using media, (2) teaching materials for special journals in the form of e-books, (3) discussion forums, (4) learning video courses, in which two videos with flash animation format are linked. and five videos in MP4 format, (5) practice questions & assignments course, containing practice questions and assignments with varied question forms (multiple choice, matchmaking, true-false, filling, and essay),

and (6) course download, which contains links to download powerpoint presentation files and learning videos related to special journal materials.

The product produced in this development research is in the form of e-learning media based on Moodle on the basic competencies of special journals. So that the results obtained from the use of this media are maximized, it is recommended that the internet connection is well connected and the user already has basic knowledge of computer operation. In addition, it is better if the media that has been successfully developed can be utilized more optimally and there is further development for other basic competencies or research related to the benefits of using computer and internet-based

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