



Development of Web-Blog Based Learning Media on Accounting Subject

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Abstract

This study aims to develop learning media based on web-blogs for accounting subjects. Which method used is Research and Development (R&D) adapted from the model ADDIE. Stages in the development of Web-Blog: 1) Analysis, 2) Design, 3) Development, 4) Implementation, and 5) Evaluation. The instrument of the research consisted of interviews, observations and questionnaires. The data analysis technique used in this study is a qualitative descriptive analysis and Descriptive statistics. The results showed that the learning media based web-blog meet the eligibility criteria after completing the stages of DDIE development. Material experts and media experts provide an assessment with good qualifications with minor revisions. While testing the field is assessed with good qualifications and is eligible for use.

Keywords: *Accounting Learning Media; Web-Blog; ADDIE*

Introduction

Education in the 21st century has actually grown rapidly and progressed. The concept of 21st century skills according to the Raizen team focuses on four categories: namely *ways of thinking, ways of working, tools for working, living in the world* (Griffin, P., & Care). 2015) (Muhali 2019). Globally, life can be affected by its development, some of the main characteristics of globalization are (1) there is no world limit (2) science and technology and their applications have progressed in human life; (3) human rights began to be fought for (4) cooperation and competence (Wulandari, Dantes, and Tika 2014). Technological advances in human life affect the quality of human resources, especially in the field of education. The roles of teachers and students sometimes change due to limited technology in the learning process. Teachers are not only a source of all information, but also as facilitators for students in obtaining information.

The learning component that plays an important role in achieving learning objectives is the learning media, which is a vehicle and delivery of information or learning messages to students. The learning component that plays an important role in achieving learning objectives is the learning media, which is a vehicle and delivery of information or learning messages to students. The educational process must be designed as attractive as possible so that students are focused and motivated to follow the learning process well (Emda 2017). The use of technology in education, especially learning design is not new, especially with the rise of online learning.

One of the schools that the researchers observed, there were still many students who felt bored with the learning methods and models used during learning, and the absence of involvement of the learning media in increasing student focus and attention during the learning process so that it affected learning achievement. Irmayanti and Nugroho (2016) tried to develop a web-blog-based learning media.

Web-blog is a collection of interconnected pages that can be accessed via a browser by using the internet and used as a source of learning in the world of education (Rossi et al. 2021). Based media *Web-blog* has many advantages compared to other media, namely affordable costs and ease of use (Wahyudi and Sugianto 2022). With the media that has been developed, it is hoped that students will be more conducive and active because they do not continue to be fixated on the media of books that make them bored and the teacher's teaching methods are monotonous (El-attar and Awad 2019). Students can understand themselves about the explanation of this chapter by playing back the video attached to the *web-blog* (Mahmudi 2021). Compared to pre-existing learning media, the development of *web-blog* has a novelty in learning in its implementation and it is hoped that in the future students will not find it difficult to understand material about journal books using media that has been developed by researchers, namely *web-blog* (Darmalaksana 2021).

In order to support the mastery of technological competence in teachers, conduct further research on previous studies and overcome problems that occur in the field, especially in accounting subjects where these problems need to be addressed immediately, the researchers aim to develop *web-blog* in accounting subjects at SMK Negeri 1 Pedan Klaten.

Research Method

Type of research is Research and Development (RnD). The purpose of this research is to produce a product in the form of a *web-blog* that is suitable for use in accounting subjects at SMK Negeri 1 Pedan Klaten. The development design taken from the ADDIE model contains five stages, namely: (a) *Analysis*, (b) *Design*, (c) *Development*, (d) *Implementation*, and (e) *Evaluation*.

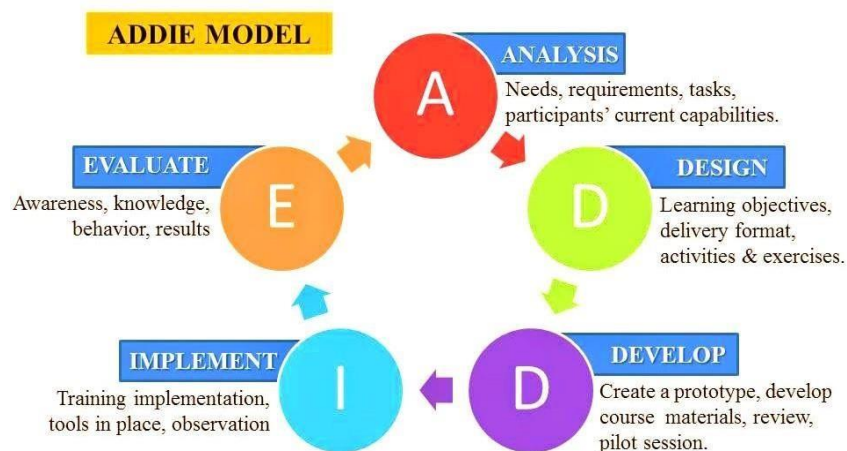


Figure 1. ADDIE Development Model by Dick and Carry

This research and development (R&D) was carried out at SMK Negeri 1 Pedan Klaten using research subjects in class X Accounting students in accounting subjects with a total of 36 students. Research and development is a research method used to produce a particular product and test the effectiveness of the product (Sugiyono 2012). To produce certain products, research that is needs analysis is used, and to test the effectiveness of these products so that they can function in the wider community, research is needed to test their effectiveness. The trial design involved Material Experts, Media Experts,

Vocational Accounting Teachers, 36 Accounting students in class X SMK Negeri 1 Pedan Klaten. The type of data consists of verbal data such as criticism and suggestions as well as numerical data such as the results of filling out the media test instrument. The research instrument consisted of interviews, observations and questionnaires. The questionnaire includes a need identification questionnaire, material validation questionnaire, students and teacher trials. There are two analytical techniques used, namely descriptive qualitative and descriptive statistics. Qualitative descriptive was used to interpret the criticisms and suggestions for improvement contained in the questionnaire, while descriptive statistics were used to give meaning to scores on the questionnaire.

Result and Discussion

1. Result of the Identification

Research and Development Needs Analysis (R&D) was carried out at SMK Negeri 1 Pedan Klaten by using research subjects in class X accounting subject. SMK Negeri 1 Pedan Klaten also applies the 2013 curriculum in its learning. Based on the results of the need analysis, information was obtained that 1) The learning process is still teacher-centered, 2) Accounting learning is still limited to the use of student handbooks borrowed from the library, 3) Teachers are hindered by time to develop learning media, especially modules, because teachers have to pursue material to be delivered to students. In 2013 curriculum applied in schools, the school is required to implement the learning process using a scientific approach so that an innovation is needed. Innovation can be done on strategies, models, and learning media so as to maximize students' abilities through the development of *web-blog*- so as to improve learning objectives.

2. Development Design Stage

Based learning media *web*, the author carried out several stages of development, starting with analysis stage of core competency standards and basic competencies based on the syllabus.

Basic Competencies Main Materials

3.8 Applying the basics of business recording (journal book, debit-credit concept, normal balance, systematic recording, journal forms)	a. Journal book b. The concept of debit-credit c. Normal balance d. Systematic recording e. Journal forms
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Source: Syllabus of SMK Negeri 1 Pedan Klaten

Based learning media *The web-blog*- developed utilizes several varied media components, such as text, images, sound, and is supported by interactive learning videos. Utilization of various types of media has been adapted to the material or information presented in the learning process. Illustration design supporting material on *web-blog*- contains pictures and videos. Pictures and videos have been adapted to the material so that it is expected to be able to provide variations in the delivery of learning materials through the use of these media. The videos provided are sourced from *YouTube* and independently recorded videos that have gone through the *editing* so that there is a match between the subject matter and the information contained in the video.

3. Product development stage

At the development stage, it becomes the initial stage of the process of creating *web-blog*-. The development stage produces the initial product of *web-blog*-.

4. Product Implementation Phase

Experts were asked to evaluate the learning media to see the weaknesses of the learning media. Experts who rate this product consist of three categories. All three are people who have expertise in the field of media, *web-blog*-based learning.

a. Validation of Media

Experts This media expert is a lecturer at the UNS Education Technology Study Program. The media expert has a history of education in the field of educational technology (TP), providing advice and assessments. The following are criticisms and suggestions given by media experts: a) It is recommended that there be student and teacher interaction by adding a discussion *room/chat room*, b) If possible, add audio information to the material section, c) The background on *the web* should not be brighter than the text/text.

Table. 1 Revision results of media experts

Before Revision	After Revision
Added discussion rooms and audio in media <i>web</i>	based learning media <i>web-blog</i> -
color <i>background</i>	Changed <i>background</i> darker than writing

Validation was carried out related to two aspects, namely aspects display and programming aspects. Description of the assessment with a scale of 1 = less, 2 = enough, 3 = good, and 4 = very good.

Table. 2 Convert the actual score to a four

No.	Scoring Range Score	Range	x	Category
1.	$x \geq X + 1SBx$	3	A	Very Good
2.	$X + 1SBx > x \geq X$	$3 > x \geq 2.5$	B	Good
3.	$X > x \geq X - 1SBx$	$2.5 > x \geq 2$	C	Fairly Good
4.	$x < X - 1SBx$	$x < 2$	D	Less

(Source: Djemari Mardapi, 2008: 123)

The results of the media evaluator's assessment can be seen in the table below.

Table. 3 Media Expert Rating on *Web-Based Media-blog*

No.	Aspects of Assessment	Total Score	Average Value	Category
1.	Display	42	3.5	Very Good
2.	Programming	26	3.25	Very Good
Total		68	3.4	
Overall Category Conformity of Materials		VERY GOOD		

Based on the table above regarding the conversion of the actual score to a scale value of four, it is known that the average (x) for both aspects is 3.4 which lies in the range $x \geq 3$ which states that the product developed gets an "A" in the "Very Good".

b. Validation of Material

Experts This material expert is a lecturer at the UNS Accounting Education Study Program. Material experts have a history of education in accounting, providing advice and assessment. The following is a critique of suggestions given by material experts, namely Accounting Terms are not in accordance with the latest SAK.

Table. 4 Material Expert Revision Results

Before Revision	After Revision
Accounting terms are not in accordance with SAK	All accounting terms have been replaced or changed in accordance with the latest SAK

The results of material evaluators assessment can be seen in the table below.

Table. 5 Media Expert Rating on *Web-Based Media-blog*

No.	Aspects Assessment	Total Score	Average Value	Category
1.	Learning	40	3.6	Very Good
2.	Material	32	3.5	Very Good
Total		72	3.6	
Overall Category Conformity Material		VERY GOOD		

Based on the table above regarding the conversion of the actual score to a scale value of four, it is known that the average (\bar{x}) for both aspects is 3.6 which lies in the range $\bar{x} \geq 3$ which states that the product developed gets an "A" in the "Very Good".

c. Validation by Practitioners (Subject Teachers)

Based Accounting learning media *web-blog*- developed must go through the stages of validation or practical assessment by learning practitioners. The validator of learning practitioners from this research is an Accounting teacher at SMK Negeri 1 Pedan Klaten who teaches Basic Accounting subjects which discuss Journal Books.

Table. 6 Assessment of Learning Practitioners on Web-Based Media *-blog*

No.	Assessment Aspect	Total Score	Average VERY	Category
1.	Material	34	3.7	Very Good
2.	Question	8	4	Very Good
3.	Language	3	3	Very Good
Total		45	3.75	
Category Overall Conformity of Material		GOOD		

Based on the table above regarding the actual score conversion into a four-scale value, it is known that the average (\bar{x}) for the three aspects is 3.75 which lies in the range $\bar{x} \geq 3$ which states that the product developed gets an "A" in the "Very Good".

The results of the validation by Accounting Learning Practitioners show that the learning media developed based on the assessment of the material, questions and language aspects are included in the Very Good category to be tested in accordance with the criticisms and suggestions given by the learning practitioner.

5. Evaluation

stage Entering the fifth stage, the evaluation is carried out using student respondents for field trials. The evaluation stage is the final stage of the ADDIE model. At this stage the results of the media are applied, evaluated from several shortcomings. Learning improvement is reviewed through the final measurement results at the beginning and at the end with a *Likert*. The preparation of this questionnaire consists of 10 opinions/questions considered valid, of which 8 questions are positive and 2 other statements are negative. Based on the results of the instrument reliability test in class X Accounting with 35 students showing the *Cronbach's Alpha* as much as 0.755 so it can be declared reliable, because $0.755 > 0.344$ (r_{table}). The reliability coefficient criteria states that the reliability coefficient is very high. Researchers are able to determine the achievement of media development goals by measuring success. The benefits of this media can be known, researchers can measure the increase in enthusiasm in learning the Journal Book chapter with questionnaire data taken from students.

based learning media *Web-blog* has the advantage that it can be used by individuals at school or outside of school. This media is very easy to use using a *smartphone* or via a laptop/computer. based teaching media *web-blog*- Aditya, (2018) states that *web-blog*- valid and practical to use for learning. Research by (Hanum 2014) states that *web* very good and effective for improving learning outcomes. The research was approved by the research of Martono & Nurhayati (2014) which obtained 95% *users* satisfied and able to use *mobile learning*. Research by Astra *et al.*, (2015) stated that the average eligibility of media experts was 83.13% concluded in the good and decent category.

Conclusion

Based on the results of the development of *web* based learning media, it can be concluded that *web-blog*- can facilitate students in understanding the material. This is evident from the assessment of media experts 3,4; material expert 3,6; and 3.75 learning practitioners with all categories "Very Good". This shows that the *web-blog*- based developed by researchers can be utilized in the learning process at school.

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