

DEVELOPMENT OF E-MODULES USING THE FLIPBOOK BUILDER APPLICATION BASED ON DISCOVERY LEARNING

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Abstract

Background : Technology is closely related to time. Over time, technology will improve thanks to an advanced human mindset. One of the structures of technological development that can be felt is the dissemination of information. **Method :** This research was conducted using the Research and Development (R&D) method. The research and development steps are guided by the ADDIE model (Analyze, Design, Development, Implementation and Evaluation). The development stage has 2 stages, namely 1). Validation test in which there are three validators, namely material experts, media experts and design experts. 2). The practicality test in which there are several stages, namely the test of the tax subject lecturer (one person), the small group test (8 people) and the large group test (30 people). **Result :** The results of the validation from material experts, media experts and design experts were obtained that the criteria could be used with partial revisions with a result of 85%, could be used with partial revisions with 87.5% results and could be used with partial revisions with 86.1% results. **Conclusion :** after being given treatment, the value obtained increased by 86% in the range A and B. In the second stage, namely the student response test, the student got a positive score of 90.6% which is where the E-module is very effectively used in the learning process.

Keywords: E-module, Flip Builder, Discovery Learning.

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INTRODUCTION

Technology is closely related to time. Over time, technology will improve thanks to an advanced human mindset. One of the structures of technological development that can be felt is the dissemination of information. The progress of the world of information technology at this time is reflected in the fact that everyone can enter information anytime and anywhere. It is undeniable that advances in information technology can be utilized by the community to meet their needs, one of which is in the field of education (Wulansari, 2018).

Education is an instrument to guide the development and progress of the nation. Education also describes a long-term investment in human resources that has a meaningful point for the development of human civilization in the world (Yuliasari, 2017). The use of ICT in learning is very beneficial, this has been proven by previous studies by (Abrianto & Sitompul, 2014; Gunawan, 2016; Idris, 2015; Khairunnisa, 2017; Riasnelly, 2013; Roza, 2010; Sunarwan, 2013). The use of ICT is also not only useful in the learning process, but also ICT can be used in several general studies, such as those conducted by (Andriyani, Cangara, & Sadjad, 2014; Budiman, Yusrizal, & Damanik, 2014; Febriani, 2012; Kristiyono, 2015; Santoso, 2014). This change in demands makes the world of education require innovation and creativity in the learning process because many people propose in education, especially learning.

The learning process is actually a form of educative interaction, namely interaction that has educational value and

consciously sets goals in order to change the behavior of one's actions. The learning process is a communication tool where the communication process must be realized through the process of exchanging information by teachers to students. Therefore, a good learning method must utilize good teaching materials as well. Along with the progress of the times and Science and Technology (IPTEK), many students choose to bring laptops or devices instead of printed books because printed books are thicker than devices and laptops, which are simpler and more efficient (Afrilianto, 2012: 193).

As a form of advancement in information technology, currently books as one of the learning resources needed by teachers and students in learning can not only be obtained from libraries or bookstores. Teachers and students and even students' parents can find the books they need by downloading them in the form of electronic books through the use of the internet. Electronic books or called e-books (electronic books) are an interesting tool for most students. E-books have become a sophisticated technological innovation that is expected to develop over time to replace traditional paper books for the prospective future (Lynch, 2012; Shen, 2011; Lai and Chang, 2011).

The electronic module is a form of delivering teaching materials that are displayed in electronic form. One of the software that can be used to create electronic modules is Flipbook Builder. Flipbook Builder is software designed to convert PDF files into digital publication e-books, so the display can be flipped over like a book in printed form (Sugianto et al 2013: 103).





According to Agustina (2011), electronic modules have several advantages, including being able to provide material with a combination of media such as audio, text, illustrations, and video. The subject matter of taxation is one of the tax subjects that can be packaged using an electronic module, because the subject matter of VAT, Tax Invoice, PPnBM, PBB, and Stamp Duty in taxation will be easier to understand and understand by readers.

Taxation courses are mandatory topics because the topic of taxation aims to formulate and understand the rights and obligations of taxpayers, as well as procedures and rewards related to taxation that are regulated in Indonesia in accordance with the provisions of the Indonesian tax laws and regulations. So that the purpose of making the e-tax module is so that students (readers) are more efficient and find it easier to learn taxation.

Discovery Learning aims to change passive learning situations to be active and innovative. Transformation of teacher-centered learning into student-centered learning. By changing the display mode, students will only receive general information from the teacher regarding the material to be studied, but students must find the information themselves. In Discovery Learning, students do not accept the concept in its final form, but are asked to participate in developing the concept.

RESEARCH METHODS

This research uses research and development methods. Research and

development is an effort to develop effective products in the form of teaching materials, media learning strategies for use in schools, rather than testing theories (Gay, 1990). The development method is a method for finding, developing and testing a product based on a systematic process so that the product has high scientific value and can be trusted and used by the wider community. The researcher uses the research and development (R&D) method from the ADDIE R&D model (Analysis, Design, Development, Implementation, and Evaluation). According to Romiszowski, systematic learning design as a procedural aspect of the systems approach has manifested itself in many methodological practices for the design and development of text, materials, audiovisual, and computer-based learning materials.

With this research model, the resulting product is a digital book that uses a flipbook builder based on discovery learning on taxation material with the aim of facilitating learning activities between educators and students who carry out the achievement of educational goals. The research and development phase includes: 1. Analysis 2. Design 3. Development 4. Implementation 5. Evaluation. The steps of the research procedure are according to the research and development method chart.

RESULTS AND DISCUSSION

This study aims to produce a product learning media in the form of an E-module product using the Flip Builder application based on Discovery Learning for Economic Education Study Program students. This e-module contains basic





materials such as VAT, Tax Invoice, PPnBM, PBB, Stamp Duty and Discovery Learning-based practice questions combined with pictures, learning videos and audio. E-module development using the Flip Builder Application based on Discovery Learning in the Taxation course at the Economic Education Study Program, State University of Medan using the ADDIE research model. Where ADDIE has several stages in the process, namely: 1) Analysis, 2) Design, 3) Development, 4) Implementation, and 5) Evaluation.

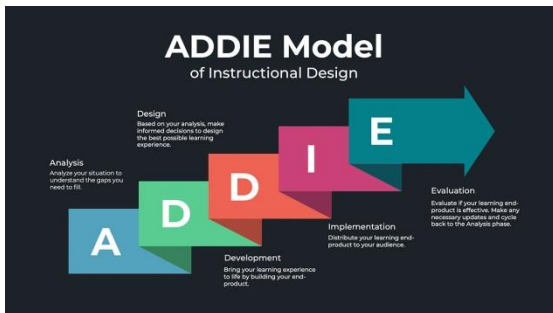


Figure 1. ADDIE Model

The Analysis stage is the initial stage in the development of this E-module to find sources of information on campus because with this the E-module can be developed based on the results of the analysis obtained. The analysis carried out is to analyze the curriculum, and analyze the needs of the students where the research takes place.

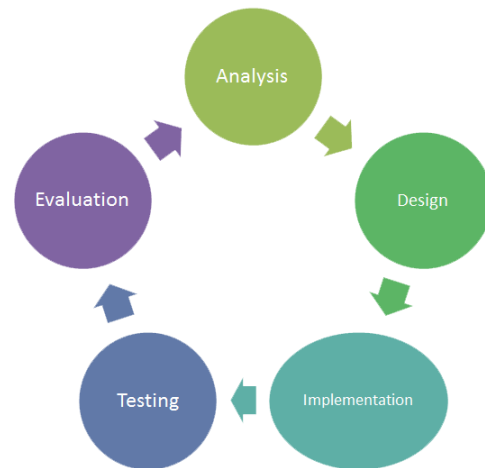


Figure 2. Stages of the Development Life Cycle

The Flip Builder application is the software used to develop this E-module. Development of E-module for Discovery Learning-based Tax subjects. The preparation of the E-module design is by compiling a framework consisting of a cover, an introduction, stages of the Discovery Learning learning model, a table of contents, learning activities and a bibliography. The learning stages in the E-module consist of material explanations, sample questions and exercises that refer to Discovery Learning, namely understanding problems, planning problem solving, implementing plans and re-examining.

The development stage is carried out when the researcher has completed the design stage. Where the development stage is to produce a product that has been designed at the design stage and then validate the product developed to the supervisor after that perform a product validation test to an expert validator. After validating, then at the next stage a trial test is carried out, which consists of three trial steps, namely small group trials, large





group trials and teaching lecturers/course trials. E-module validation was analyzed from several aspects, namely content, language, appearance and context relevance and Discovery Learning. The results of the E-module validation are in the form of statements by experts that the E-module is feasible/valid to proceed to the next stage with several revisions or improvements, namely with a score of 85%.

Individual trials and small group trials are carried out in stages so that the E-module is truly valid and practical to use. Furthermore, at the Implementation stage, limited product trials are carried out where there are two stages, namely pretest-posttest and distributing questionnaires which are tested on Study Program students Economic Education Stambuk 2018 Medan State University in class A as many as 30 people. Where it aims to see the effectiveness of the Discovery Learning-Based Taxation E-module. The first step to determine the effectiveness of the Discovery Learning-Based Taxation E-module is to test the student's ability level before and after being treated, namely by pretest-posttest.

The pretest was given before being given treatment in this limited trial, while the posttest was given after being given treatment or given the Discovery Learning-Based Taxation E-module. If categorized based on the student's ability level, then the level of mastery of the Pretest and Posttest abilities in the trial is limited.

The results of the ability test in the form of pretest and posttest stages can show that there is a considerable influence on the ability of students if they are given

treatment in the form of giving an E-module where the pretest level or before being treated only gets a value in the range of C and E, after being given treatment the value obtained increases. 86% in the range of A and B. In the second stage, namely the student response test, the student got a positive score of 90.6% which is where the E-module is very effectively used in the learning process.

The final stage in this ADDIE model is the evaluation, which is a total of all the stages that have been carried out. After the results of the analysis are obtained, the Design stage is carried out by adjusting the curriculum, the needs of the supporting lecturers and the needs of the objectives. To improve the material, namely VAT, Tax Invoice, PPnBM, PBB, and Stamp Duty with the aim of helping the student learning process

Individual trials and small group trials after that carry out the stages of revision or improvement according to the suggestions of expert validators and supporting lecturers and are declared eligible or valid to be used.

CONCLUSION

Based on the research and discussion that has been described previously, the Development of E-module Using the Flip Builder Application Based on Discovery Learning Taxation Courses for Education Study Program Students at the State University of Medan was developed with the ADDIE development model which went through five stages, namely Analysis, Planning, Development, Implementation and Evaluation . The conclusions that can be drawn from development research are:





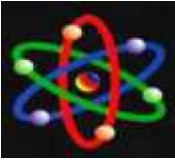
Validation of the E-module can be seen from the content, language, appearance and relevance of context and discovery learning. The results of the E-module validation are in the form of expert statements that the E-module is feasible/valid to proceed to the next stage with several revisions or improvements, namely with a score of 85%. Furthermore, the practical analysis stage of the E-module can be seen from several aspects, namely content, language, the relationship between content and discovery learning learning models. As for the practical analysis experts, there are response tests to supporting lecturers, individual trials and small group trials.

After carrying out the practical phase, then the E-module was tested in a limited way in a class of 30 students. The effectiveness analysis was carried out in two stages, namely the pretest-posttest test and the student response test in the form of a questionnaire. The results of the ability test in the form of pretest and posttest stages can show that there is a considerable influence on the ability of students when given treatment in the form of giving an E-module where the pretest level or before being treated only gets values ranging from C and E, after being given treatment the value obtained increases. 86% in the range A and B. In the second stage, namely the large group response test, it got a positive value of 88.1% which is where the E-module is very effectively used in the learning process.

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