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Jobco Digital Module to Improve Student Learning Outcomes

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Abstract *: This research aims to develop a product in the form of a digital module with the Canva platform and flipbook maker to improve student learning outcomes in cost accounting courses on the topic of cost of orders. Digital modules make it easy for students to access and increase students' interest in learning. This development research uses the ADDIE research design and development model. The research results found that the feasibility level in terms of media was very good with a score of 94%, while in terms of feasibility the digital module material developed received a score of 95% with very feasible criteria. The effectiveness results show that the digital module is able to improve student learning outcomes on the topic of cost of goods ordered. Educators are required to be creative in developing teaching materials, so digital modules are a form of creativity in teaching materials by presenting audio, visuals, animation and flexibility in use.*

Keywords*: Digital module, Flipbook, Learning Outcomes,*

INTRODUCTION

Teaching materials are one element of learning that has an important role . The development of technology and information has had an impact on changes and innovations in teaching materials both in terms of form and packaging. The digital era requires teachers to adopt technology in learning, including in the development of teaching materials. (Triwahyuningtyas et al.,2020). Teachers must innovate to develop innovative and interactive teaching materials. However, of the various teaching materials available, textbooks are most widely used in learning activities (Gracin., 2018). Even teaching materials in the form of textbooks currently still dominate (Hakan., 2020).

Teaching materials in the form of digital modules or also known as E-Modules have been proven to be able to increase students' interest in learning and improve the quality of learning. (Belland et al., 2015). Interactive digital modules can increase learning independence and make it easier for students to understand learning material (Sriyanti et al., 2021). Digital modules make it easier for students to access, thereby increasing the effectiveness and efficiency of learning and making it more interesting for students.

According to Kosasih, (2021) digital modules can be used using computers, laptops or smartphones. In terms of content, digital modules are not much different from printed module teaching materials, but in terms of packaging they are more interesting and interactive because of the audio, video and other moving animation elements. Apart from that, digital modules can be used practically anywhere and at any time without requiring the physical presence of the teaching materials. Masruroh (2021) found that the development of digital modules was able to increase students' readiness in learning with the support of the correct learning model.

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Subject cost accountingis one of the most important subjects and is a characteristic of the accounting study program. One of the topics of cost accounting is calculating and recording the job order costing . The results of researchers' observations and documentation while teaching cost accounting courses found that student learning outcomes on *job order costing material* were still low compared to other topics. The learning results show that of the 35 students, 25% of the students got a score above 75, while the rest still got a score below 75.

A preliminary study conducted by researchers found that the current use of teaching materials is still dominated by translated books from foreign authors, making it difficult for students to understand. From the results of the questionnaire distributed by researchers, it shows that 60% of students find it difficult to study teaching materials in the form of existing translated textbooks. Apart from that, only 32% of students think that the current textbook teaching materials are interesting to study. Meanwhile, in terms of learning independence, students' level of learning independence is still categorized as low.

Based on the results of the preliminary study and needs analysis, the presence of teaching materials developed by teachers for job order costing material in cost accounting courses is really needed. The development of teaching materials in the form of digital modules is expected to be able to improve student learning outcomes on the topic of cost accounting in cost accounting courses. Digital module development uses Canva as a platform with its various conveniences and advantages. Canva can be used flexibly either via the website, google play or playstore. Apart from that, Canva is an easy-to-use website and application, offered for free which is relevant for design and graphics (Enterprise, 2021)

LITERATURE REVIEW

Teaching materials are all forms of materials, both text and non-text, that are developed systematically to achieve certain competencies in learning. Teaching materials developed by educators can be in the form of textbooks, handouts, job sheet or modules. The module is designed and developed to help students to learn independently by providing materials to study in full as well as evaluation to determine the level of students' understanding (Sumantri, 2021). In the digital era, modules have been transformed into digital modules using various existing digital platforms (Degeng, 2021). Digital modules can be studied anywhere and are interactive because of the elements of video, audio, animation and two-way interaction.

Digital modules utilize multimedia technology which makes the collection of teaching materials more interesting and interactive. According to Siahaya, (2020) digital modules provide direction for students to learn independently to achieve a certain competency

by following the instructions in the module. The use of digital modules in learning can help students understand the concepts given by educators (Nopiani et al., 2021). Digital modules can increase students' interest in learning if they are developed creatively and innovatively (Tresnaningsih, et al., 2019).

Cognitive constructivism views learning as an active process of students constructing new ideas or concepts based on their understanding of current or past knowledge (Connolly and Begg, 2006) . Constructivism gives students the freedom to build their own knowledge in the learning process (Mustafa, 2021) . The objectives of this constructivist theory include helping students ask and search for their own questions based on the information received, helping develop accurate understanding and understanding of concepts and enabling students to have the ability to think independently which places more emphasis on the learning process (Arini and Umami, 2019) . Digital modules direct students to understand and construct their understanding through independent learning in line with constructivism theory.

RESEARCH METHODS

Research and development is the method used in this research because it aims to develop and test a particular product. The research development model uses the ADDIE model which consists of analysis, development, implementation and evaluation stages. The ADDIE development model provides logical and systematic steps. This model requires testing by a team of experts, research target subjects, both on a limited and wide scale, as well as product revision stages so that the resulting product meets appropriate and tested standards (Cahyadi, 2019).

Subject development product trials were carried out in three stages, namely material expert validation tests, media validation tests, and user trials with the aim of determining the level of validity and effectiveness of the digital modules being developed. User trials were carried out on a limited basis on students taking cost accounting courses at the Faculty of Business Economics, State University of Malang. The instruments used in this research were questionnaires and scoring guidelines. As for learning outcome data, it is obtained through documentation of test results . The following are the scoring guidelines for the questionnaire shown in table 1

Table 1: Table 1 Guidelines Score Evaluation

Information	Score
Very Good	5
Good	4

Enough Good	3
Not enough Good	2
Not good	1

Source: (Fadhilaturrahmi & Ananda, 2018)

To determine the level of feasibility and validity of digital modules, use a questionnaire using the following conversion:

Table 2 Criteria Validity Descriptive

Criteria Validity	Level Validity
>85% - 100%	Very Good
>70% - 85%	Enough Good
>50% - 70%	Not enough Good
0% - 50%	Not good

Source: (Akbar & Komarudin, 2018)

RESULTS AND DISCUSSION.

Analysis

At the analysis stage, researchers conducted a preliminary study by looking at students' learning achievements in the cost accounting course. From the results of observations and documentation, researchers found that cost accounting courses on the topic of job order costing student learning outcomes were still low. Only 25% of students got a score of more than 75 while the rest were below 75. Next, the researchers conducted research on the availability of existing teaching materials and cost accounting media. The results of observations found that cost accounting teaching materials are still dominated by textbooks written by foreign authors, the majority of students use translated books and buy them from places where the quality of the books is not good. Apart from that, the survey conducted found that students were less interested in studying using existing textbooks which were very thick and therefore heavy when carried. Based on the analysis stage, it was found that student learning outcomes on the topic of job order costing were still low and the availability of teaching materials was dominated by translated textbooks. Developing digital modules to improve student learning outcomes is a necessity to solve the above problems.

Design.

At the design stage, researchers design the content and appearance of the digital module by paying attention to the characteristics of the digital module. In this design stage the researcher presents the character of an interactive digital module and includes elements of digitalization both in the material and in the evaluation. Digital module development refers to

existing lecture plans. The module is designed to help students understand calculating and recording accounting for the cost of orders in cost accounting courses. At this stage the researcher collects module materials consisting of text, video, images, appropriate reference books and supporting audio. The module was designed using the Canva application and flipbook maker. As for the module assessment, it is designed using a Google form by providing feedback on each answer. The module is also equipped with videos, ppt and discussion forums using Padlet. The module is designed to suit the main character of the module which contains a foreword, table of contents, subject matter, material, assessment, bibliography and glossary. An overview of the digital module design is shown in Figure 1 below:

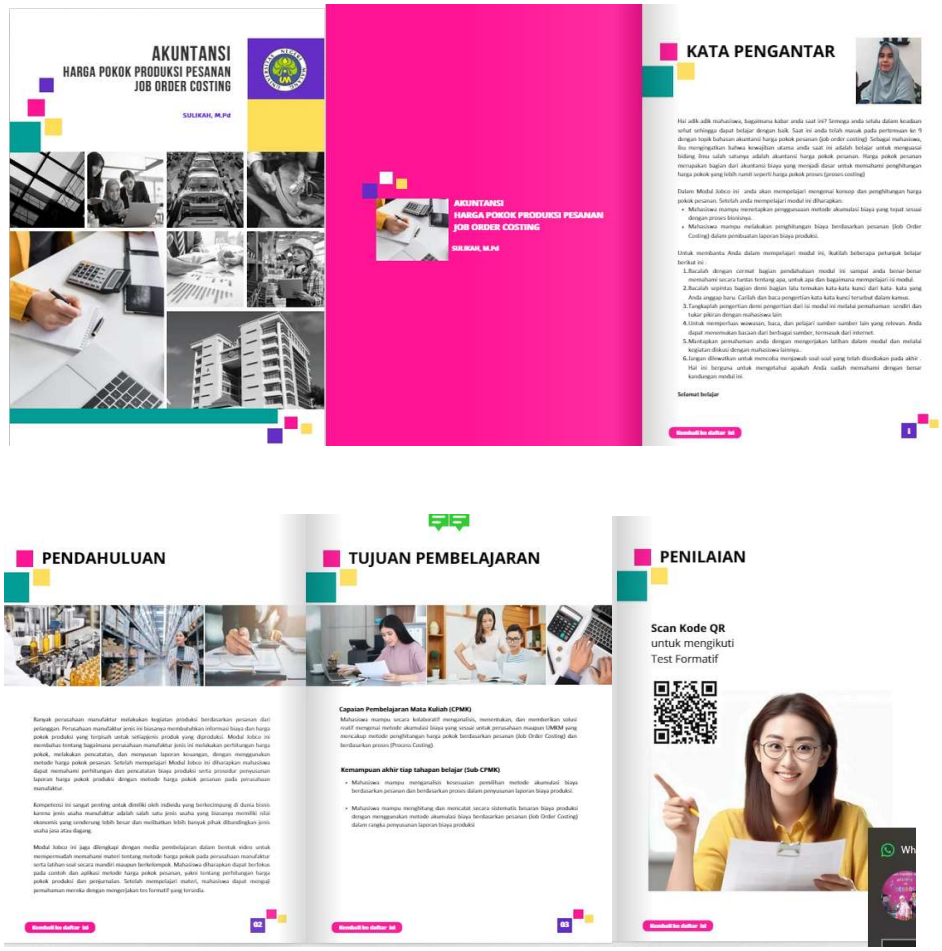

Figure 1: Digital Module Display

Development

The product development stage is carried out by asking for suggestions and input from material experts, media experts, as well as limited user trials. The product validity test got a score of 94%, which means the product developed is very good and suitable for use in terms of media. The results of the validity test from material experts received a score of 95%, which

means the product developed has very good criteria and is feasible in terms of material development. Learning material in digital modules is packaged in the form of text, video, ppt and equipped with audio to accommodate different learning styles. Digital modules using Canva and flipbooks make it easier for students to understand the material because they use explanations in various media (Ristanto et al, 2020).

Implementation

At this stage the researcher conducted a confidence test on limited users, in this case students taking cost accounting courses. The results of the limited user feasibility test showed that classes that used digital modules based on Canva and flipbook experienced an increase in the average learning outcomes on the topic of cost of orders by 28.5%. Before using the product the average class score was only 70, and after using the product student learning outcomes increased to 90. This is in line with research by Afwan (2020) which shows that flipbook-based modules are valid and suitable for use as teaching materials.

Evaluation Stage.

This stage is carried out to assess the product being developed. The assessment results were obtained from users through a questionnaire distributed by researchers. The digital modules developed prioritize aspects of practicality, attractiveness and ease of understanding the material. The results of user feasibility tests show that the digital module is feasible and helps students learn about the cost of orders. The flipbook-based module is able to accommodate teachers' needs and students' different learning styles (Afwan et al., 2020).

The evaluation results show that students find it easier to learn mathematics with digital modules. The cost of goods ordered material is one of the materials in the cost accounting course which requires students to master the concept and apply it in calculations. The digital module provides many illustrated examples of practice questions, as well as independent practice questions which are equipped with answer keys, making it easier for students to practice and get feedback.

The results of this research are in line with constructivism theory where students can construct their own understanding through the use of modules designed for student learning independence. Educators have an influence on student learning outcomes by using appropriate teaching materials. Digital modules provide space for students to study independently as a form of learning experience. Digital modules provide flexibility for students to study. From the educator's perspective, digital modules make it easier to increase student motivation and understanding.

CONCLUSION.

Based on assessments from media experts and material experts, this digital module in the cost accounting course is suitable for development and use as teaching material in learning. This digital cost accounting module is able to improve student learning outcomes on the topic of order cost. Digital modules are innovative teaching materials that can be developed by educators to improve the quality of learning. The next developers can improve by adding games or augmented reality applications to make it even more interesting.

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