

UTILIZATION OF FLIPBOOK AUDIO-VISUAL IN EBOOK INNOVATION TO IMPROVE STUDENT UNDERSTANDING FOR ACCOUNTING SUBJECTS IN SMK ARIF RAHMAN HAKIM SURABAYA

Komarun Zaman¹, Lis Setyowati², Devangga Putra Adhitya Pratama³

Sekolah Tinggi Ilmu Ekonomi Pemuda^{1,2,3}

Jalan Bung Tomo No. 8 Ngagel, 60245, Surabaya, Indonesia

Email: komarunzaman.stiepemuda@gmail.com¹, lissetyowati.stiepemuda@gmail.com²,
devangga.stiepemuda@gmail.com³

Correspondence Author Email: komarunzaman.stiepemuda@gmail.com

ABSTRACT

In this study, an audio-visual flipbook-based e-module product was developed for the ledger material of accounting subjects studied by students at SMK Arif Rahman Hakim Surabaya. The Borg & Gall model was used in this development research. Furthermore, quantitative and qualitative data types were used with a Likert scale, and the data collection tool was a validation sheet. The data were analyzed by descriptive data analysis technique. Furthermore, three validators-material expert, media design expert, and language expert-tested the developed module according to their expertise. To ensure that the learning E-module was feasible, a validation test was conducted. An innovative and creative audio-visual flipbook-based E-module should be developed based on the problem. Further in this article, researchers will discuss the product validity of their audio visual flipbook-based e-modules. The validation test results are as follows: material expert validation results of 84 percent, media design experts of 83 percent, language experts of 81.5 percent, and the average validation results from student responses of 76.9 percent. By considering the criteria for the level of validity of the product, it can be concluded that the e-module product based on audio-visual flipbooks in general ledger accounting lessons is feasible to be widely tested at a later stage.

Keywords: *Teaching Material Development, E-module, Flipbook, Audio visual.*

A. INTRODUCTION

Education is an endeavor to maximize human potential, intellectual prowess, and rational thought by giving meaning to what is observed, heard, read, and taught for practical application in daily life. Students must actively participate in the teaching and learning process in order to reach their full potential. By using inventive and original learning materials and offering contextual examples based on the needs of the students, it is possible to increase the amount of learning activities that students engage in. The importance of learning media is stated by (Aryati, Pujiastuti, & Sudiana, 2020; Fausih & Danang, 2015), that the success of achieving learning objectives depends on the methods and learning media used during the teaching and learning process. One of the learning media that is often used in the form of e-modules is a learning package containing a single concept unit of digital learning material that can be studied independently by students, anytime and anywhere. This is reinforced by Mulyadi, Wahyuni, & Handayani, (2016), "E-Modules are self-instructional learning media that only contain one learning material. Student independence is prioritized in the utilization of e-modules. One of the subjects that require e-modules is accounting.

Based on the observations of researchers during the field practice program (PPL) and interviews with Accounting subject teachers, information was obtained, that so far the teacher has used LKS teaching materials, package books, and power point media shared through the Whatsapp class group. The limitations of this learning media have an impact on the lack of student attention

and learning activities. It is necessary to develop and optimize other media that can attract students' interest in learning so that students are more focused in learning the material.

Electronic modules or e-modules based on Flipbook audio visual can be developed to overcome these problems. According to (Priwantoro, Fahmi, & Astuti, 2018; Pornamasari, 2017; Pratama & Sakti, 2020) e-modules have advantages, namely: 1) the display of information in electronic form that can be stored on a hard disk, CD, flash drive that can be read via a computer or mobile phone, 2) can be studied repeatedly outside of learning hours independently, 3) the material is displayed in the form of audio visual, sound, movie so that it is more dynamic and not boring.

E-modules can be implemented as an independent learning resource. It can help students and make the learning atmosphere fun, and can attract students' attention. Especially during the covid-19 pandemic, students learn more independently at home and online teacher assistance using cellphones.

Based on the above problems, it is necessary to develop an audio-visual flipbook-based e-module that is packaged creatively and innovatively. Furthermore, this article will discuss how the validity of audio-visual flipbook-based e-module products that have been developed by researchers.

B. METHODOLOGY

This research is an R & D (Research and Development) development research (Arifin, Pratama, & Utomo, 2023; Nurtjahyani & Tutut, 2021), which has the aim of producing e-modules in accounting subjects on ledger material. The development procedure consists of several steps, as



presented in Figure 1.

Figure 1. The Borg & Gall Model

The data collection techniques used in this study are: Questionnaire/questionnaire method and Documentation method. Furthermore, data analysis was carried out to determine the results of validation from experts and student responses. The test subjects in this development are evaluating whether the module is valid or not which will be carried out by experts, namely STIE Pemuda Surabaya lecturers according to their fields of expertise and Accounting subject teachers at Arif Rahman Hakim Surabaya Vocational School. (Hidayah et al., 2023)

Validation of the e-module includes ledger material experts and media design experts with a validation test based on a Likert scale that shows the score categories can be seen in table 1.

Table 1. Likert Scale Score Interpretation Categories

Score	Criteria
4	Very good
3	Good
2	Good enough
1	Not Good

Source: (Riduwan, 2016)

When referring to the material validation rating scale, researchers obtain data sets as material for further analysis. The data set becomes a description of media validation through systematic analysis with the calculation of the formula.

$$\text{Validity of Each Criteria} = \frac{\text{Number of data collection results}}{\text{Maximum score}} \times 100$$

After each criteria obtains a valid value, the sum of the validity percentage of all criteria is averaged as a benchmark for assessing validity based on the score that has been obtained [12], [13], [14]. The validity level criteria can be seen in table 2 as follows:

Table 2. Criteria for Product Validity Level

Average Score Percentage	Category
25,0-39,9	Invalid
40,0-54,9	Less Valid
55,0-69,9	Fairly Valid
70,0-84,9	Valid
85,0-100	Very Valid

Source: (Riduwan, 2016)

C. RESULTS AND DISCUSSION

Results

1. Validity Test Results

The following information is from the material expert validation results presented in table 3. Material expert validators provide suggestions and comments to researchers, who use them as a guide to make revisions before the media is tested on students. Material expert validators conduct the validation process by asking questions, watching flipbook-based e-modules, and filling out validity sheets.

Table 3. Material Expert Validation

No.	Aspects	Score
1	Appropriateness of Material	86%
2	Material Organization	84%
3	Evaluation	86%
4	Learning Benefits	80%
Average		84%

The results of the analysis from the material expert, has 4 aspects, namely aspects of material suitability, aspects of material organization, aspects of evaluation, and aspects of benefits in student learning. The four criteria are used as the basis for the preparation of quality and valid E-modules.

2. Media design expert validation results

Media design expert validation data obtained from the results of filling out questionnaire sheets by validators. The aspects assessed consisted of 3 (three) aspects, namely module cover design, module content design, and grading criteria. Suggestions and notes given by validators

are used as a reference for researchers to make revisions before the media is tested on students. The following is the data from the media design expert validation results presented in table 4.

Table 4. Media Design Expert Validation

No.	Aspects	Score
1	Module cover design	85%
2	Module content design	81%
3	Graphic criteria	87.5%
Average		83%

The results of the calculation by 2 media design experts, have 3 aspects of assessment criteria, namely module cover design, module content design, and grading criteria. These three criteria are used as the basis for the preparation of quality and valid E-modules. There are 5 criteria items in each aspect assessed by media experts. From the results of the assessment conducted, an average assessment of around 83% was obtained, declared valid and feasible to use as a learning resource. (Pratama, Sakti, & Listiadi, 2022)

3. Results of linguist validation

The linguist validator filled in the validation questionnaire sheet. Some notes and comments were written on the validation sheet, for further revision by the researcher. validation from linguists (Kurniawati, Nuryadi, Anisa, Arifin, & Pratama, 2024), where the aspects assessed in terms of language include 3 aspects, namely language feasibility, module content design, and grading criteria. Data from the material expert validation results are presented in table 5.

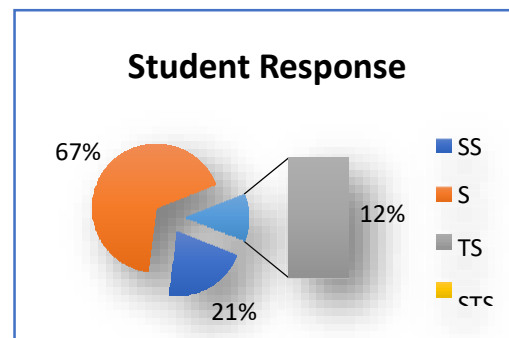
Table 5. Language Expert Validation

No.	Aspects	Skor
1	Module content language	86%
2	Graphic criteria	77%
3	Language feasibility	87.5%
Average		81.5%

The calculation results from 2 linguists, the three aspects of the criteria are used as the basis for the preparation of quality and valid E-modules. There are 5 criteria items in each aspect assessed by linguists. From the results of the assessment carried out, the average assessment of around 84.2% was declared valid and suitable for use as a learning resource. According to (Dumiyati, Wardhono, & Nurfalah, 2019; Dumiyati, Wardhono, & Nurfalah, 2021) validation results in the valid or very valid category indicate that the validated product can be tested at the next stage.

4. Student Response

Testing was carried out on students in Accounting learning and a questionnaire was given to students after the lesson ended. This questionnaire is given to find out students' responses to the use of audio-visual flipbook-based e-modules. Student responses to the use of the media are shown in Figure 2.



According to the graph, 67% of students are willing to use e-modules, 21% are very willing to use e-modules in Akuntansi lessons, and just 12% are not willing to use e-modules in Accounting lessons. Students state that this engaging (Harti, Sakti, Sudarwanto, Pratama, & Habibah, 2022), interactive e-module will help them become more motivated to learn mathematics. Features like images, videos, and clear and concise learning materials really help students grasp concepts. In addition, the students' ability to complete virtual practice independently through pre-tested simulations is also evaluated. This positive response suggests that the development of audio-visual e-modules in flipbook format is an effective innovation that students find beneficial in enhancing their learning process.

Discussion

Following the completion of the E-module validation process by three qualified validators, there were a few reviews by qualified material, qualified media design, and qualified language. The following are the salient features and feedback from the assessment material that need to be improved: The E-module is rather good; the only thing that needs improvement is the way each BAB test is broken down into smaller pieces. The final comments and quotes from the media's editorial staff are as follows: E-modules are quite useful for teaching; nevertheless, when discussing e-modules, the font size should be clear and consistent with the material so that students understand the available material.

Next is a commentary and summary from the Arabic language as follows: E-modules that have been developed are quite suitable for use in lapangan, but they must be used with care to ensure that the huruf and tanda baca are written clearly and concisely in the subjudul. Products that have been developed have both advantages and disadvantages. The advantages of the flipbook audio visual E-module are as follows: on this E-module, students can access via a phone and there is audiovisual that can be adjusted to each lesson's level. Based on research findings (Dumiyati, Wardhono, & Nurfalah, 2019), an e-module with an engrossing audiobook or visual aid can increase student motivation and diligence. This E-module also includes extensive textbook material that has been clearly explained, with chapter summaries accompanied by appropriate examples. Thus, it is possible to increase students' understanding of the concept of learning.

Due to the presence of this E-module, teachers and students should be encouraged to make frequent adjustments in order to meet the learning objectives. The purpose of this E-module is to increase student learning by creating high-quality learning materials that meet validation criteria. In addition, with the availability of this E-module, students can easily access teaching materials provided by teachers (Hidayati, Saputra, & Efendi, 2020), learn independently while at home (Nurhidayati, Putro, & Widiyaningtyas, 2018), and become more engaged and motivated to participate in class and develop their teamwork skills.

Based on research findings, the use of an audio-visual flipbook-based e-module in the Akuntansi curriculum at SMK Arif Rahman Hakim Surabaya has demonstrated positive effects on

student's comprehension. The majority of students gave an extremely good response to this innovation. The results show that the development of an audio-visual flipbook-based e-module is an effective innovation to improve students' understanding of the Akuntansi curriculum at SMK Arif Rahman Hakim Surabaya.

D. CONCLUSION

This research study designates a product as an E-module based on an audio-visual flipbook for use in large-scale textbook instruction. Based on the results of the validity analysis, the E-module, which uses an audio-visual flipbook as its basis, can be used as a more in-depth teaching tool for arithmetic lessons including large books that have been proven to be valid. This e-module is engaging, interactive, and helps to motivate students to learn. Features like images, videos, and clear and concise learning materials greatly aid in the comprehension of accounting concepts. Capacity to do virtual exercises independently through offered simulations is also evaluated by the students. The results indicate that the development of an audio-visual flipbook-based e-module is a valid and effective innovation in raising students' understanding of the Akuntansi curriculum at SMK Arif Rahman Hakim Surabaya.

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