



Jurnal Eduscience (JES)

Volume 11, No. 3

Desember, Tahun 2024

Submit : 01 July 2024

Accepted : 26 September 2024

OPTIMIZING THE USE OF ACCOUNTING MODULES AND ITS IMPACT ON THE LEARNING OUTCOMES

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Abstract

This study aims to determine the effect of using the accounting module on learning outcomes in class XI Accounting at SMK Negeri 1 Makassar. The variable in this study is the use of the accounting module as the independent variable and student learning outcomes as the dependent variable. The population in this study were students of class XI Accounting. The sampling technique used the proportional-stratified random sampling technique, the sample from the population was selected randomly and proportionally with a sample of 57 students. Data collection techniques used are questionnaires and documentation. The data analysis technique used is descriptive percentage analysis, instrument test consisting of validity and reliability tests, hypothesis testing consisting of simple linear regression analysis, t-test and coefficient of determination using SPSS Version 26.00 for windows. Based on the results of the data analysis that has been done, the simple linear regression equation model $Y = 6.466 + 0.312 X$ is obtained, which means that for each addition of 1 unit of use of the accounting module, student learning outcomes experience an increase of 0.312. While the results of the analysis of the coefficient of determination (r^2) obtained the value of $r^2 = 0.529$, this means that the effect of using the accounting module on student learning outcomes is 52.9% and the remaining 47.1% is influenced by other factors. While the results of the t-test analysis obtained a significant value of $0.000 < 0.05$, which means that the use of the accounting module has a significant effect on student learning outcomes, thus the hypothesis is accepted.

Keywords: optimizing; accounting modules; impact; learning outcomes

INTRODUCTION

The development of the world of education has improved from year to year in line with the challenges of preparing high-quality human resources capable of competing in the global era. According to the National Education System Law (Article 3 of Law No. 20/2003), the function of national education is: "To develop the abilities, character, and civilization of a dignified nation in the context of educating the nation's life, aiming to develop the potential of learners to become people who believe in and are devoted to God Almighty, who have noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens."

In the educational process, learning media plays a crucial role as a tool to deliver lesson material effectively and efficiently. Learning media not only helps students understand abstract concepts but also enhances their motivation to learn by presenting material that is more engaging and easily accessible. One highly useful form of learning media is the module, which is



systematically organized instructional material designed to help students learn independently or with minimal guidance from the teacher.

The use of learning modules that are relevant to the field of study offers many benefits. Modules are specifically designed to present learning material in a structured and focused manner, allowing students to follow the learning stages clearly and progressively. With the use of modules, students not only have a clear learning guide but can also review the material independently according to their needs. One example of module-based learning media is the accounting module, which is designed in accordance with the accounting subjects taught in vocational schools or accounting programs. This module serves to help students understand basic and advanced accounting concepts, such as recording financial transactions, preparing financial statements, and conducting financial analysis. Additionally, accounting modules are often equipped with practice questions, case studies, and step-by-step guides that facilitate students in applying the material directly.

Accounting modules not only facilitate learning in the classroom but also play a crucial role in supporting independent learning. With well-structured modules, students can study anytime and anywhere without being fully dependent on the teacher's presence. This is particularly important in the modern era of education, which emphasizes technology-based learning and flexibility in learning. Through comprehensive modules, students can gain a deeper understanding of accounting materials and be better prepared to face challenges in the workforce or further education. According to Purwanto (2016:9), the use of accounting modules written systematically and regularly can serve as a measurement tool so that students can understand and master the competencies taught and can be used for independent learning. "The use of accounting modules is a learning process concerning units of accounting lessons that are structured systematically, operationally, and purposefully for use by learners, accompanied by guidelines for the use of the module" (Mulyasa, 2014:43). According to Kurnati (2016:42), the use of accounting modules is accounting material teaching resources that consist of a series of learning activities that can have a positive influence on improving learning outcomes, covering cognitive, psychomotor, and affective assessments.

Learning can be considered successful if it produces good learning outcomes, thus achieving a goal. "Student learning outcomes, in essence, are changes in behavior after going through the teaching and learning process, covering cognitive, psychomotor, and affective assessments" (Sudjana, 2019:22). Based on observations, the accounting learning process at SMK

Negeri 1 Makassar shows that students' learning outcomes have not yet reached the predetermined Minimum Completeness Criteria (KKM) score of 75. The problem arises from the lack of independent learning resources such as accounting modules, which lack comprehensive and detailed material, causing teachers to still rely on textbooks to clarify and supplement explanations during class. This is inconsistent with Kurnati (2016:42), who states that "modules are comprehensive teaching materials consisting of a series of learning activities that can positively influence the improvement of learning outcomes."

Thus, if the use of accounting modules is maximized, learning outcomes will also improve. However, data in Table 1 does not show this, where the use of accounting modules is considered good, but learning outcomes are still poor. This is supported by research conducted by Syafrina Zairi (2017), who stated that "there is a positive and significant effect of the use of Accounting Modules on the Learning Outcomes of Class XII Accounting Students at SMK Tarbiyah Islamiyah Hamparan Perak." Another study by Hadi Pramono, Mohammad Jamhari, and Syeich Zainal (2022) also concluded that the use of accounting modules has a positive and significant effect on the learning outcomes of students at SMK Negeri 3 Meipanga. Based on the presentation and previous research, the researcher is interested in conducting a study titled "The Effect of the Use of Accounting Modules on the Learning Outcomes of Class XII Accounting Students at SMK Negeri 1 Makassar."

METHODOLOGY

This study employs a quantitative research method aimed at measuring the effect of using accounting modules on students' learning outcomes. The quantitative approach is chosen because it provides an objective depiction through numerical data collected from field research. This research is associative causal, intending to determine the cause-and-effect relationship between the independent variable (use of accounting modules) and the dependent variable (students' learning outcomes).

The research uses a quasi-experimental design with a pretest-posttest control group design approach. This design involves two groups: an experimental group that uses accounting modules during the learning process and a control group that follows conventional teaching methods without using modules. The experimental group consists of students using accounting modules, while the control group learns using traditional teaching methods, such as textbooks and lectures.

The population of this study includes all 12th-grade accounting students at SMK Negeri 1 Makassar in the 2023/2024 academic year. The sample is selected through purposive sampling, where two classes are chosen, each comprising 30 students. One class serves as the experimental group, and the other as the control group, with both classes having equivalent academic abilities, as measured by a pretest.

The research instruments include the Accounting Module, which has been validated by teachers and subject matter experts, and a Learning Outcomes Test, consisting of multiple-choice questions assessing students' cognitive abilities in accounting. This test is administered before (pretest) and after (posttest) the treatment. Additionally, a Module Use Questionnaire is provided to assess students' perceptions of the module, including whether it helps them understand the material and supports independent learning.

The research procedure is divided into three stages. In the preparation stage, the researcher prepares the accounting module and tests the validity of the research instruments (test questions and questionnaires). The implementation stage involves conducting the study over eight sessions, where the experimental group uses the module and the control group follows traditional learning methods. Pretests are administered to both groups to assess their initial abilities, followed by posttests after the treatment to measure learning progress. In the data processing stage, statistical analysis is used to interpret the pretest and posttest results.

Data collection is carried out through learning outcome tests (pretest and posttest), a questionnaire to gather student feedback on the module, and documentation of relevant learning outcomes. The collected data is analyzed using a **t-test** to determine significant differences between the experimental and control groups. This includes tests for normality, homogeneity, and hypothesis testing to assess whether the accounting module significantly influences students' learning outcomes.

The hypothesis of this study is as follows: the null hypothesis (H_0) posits that there is no significant effect of using the accounting module on students' learning outcomes, while the alternative hypothesis (H_1) suggests a significant effect. Through this research, it is expected to provide empirical evidence on the impact of accounting modules on students' academic achievement and offer recommendations for more effective instructional materials in the future.

RESULT AND DISCUSSION

Results

Descriptive Percentage Analysis

Based on the data in Table 1, the average percentage score of the actual use of accounting modules is 85.8%, which is classified as very good. However, there are still indicators below the average actual percentage score, such as instructional objectives to be achieved, topics that will be the foundation of the teaching and learning process, the role of the teacher in the learning process, and learning activities that must be sequentially experienced and internalized by students. From the descriptive percentage analysis, it can be seen that 16% or 9 students fall within the $90 \leq A \leq 100$ interval, 65% or 37 students fall within the $80 \leq B \leq 90$ interval, and 19% or 11 students fall within the $75 \leq C \leq 80$ interval.

Instrument Testing

To assess the impact of using accounting modules on the learning outcomes of 12th-grade accounting students at SMK Negeri 1 Makassar, a questionnaire was used as the data collection technique. The results were obtained from distributing questionnaires to 57 respondents. The instruments in this study were tested using the SPSS V.26.0 program for Windows, as follows:

Validity Test

A validity test measures how well an instrument measures what it is intended to measure. To determine whether each item in the instrument is valid or not, the item's score is correlated with the total score. Sugiyono (2018:178) states that "the minimum requirement for an instrument to be considered valid is an index value of >0.5 ". The validity test is conducted by comparing the calculated r-value (r-count) with the r-table value for the degrees of freedom ($df = n-2$). The sample size (n) in this study was 57 students, so the df was $57-2=55$, with a significance level of 5%, resulting in an r-table value of 0.2609. If the r-count $>$ r-table, the research instrument is considered valid.

Reliability Test

According to Sugiyono (2017:183), "Reliability shows the consistency of a measurement when repeated under the same conditions." The reliability test is aimed at examining the consistency of the instrument in representing phenomena within a group of individuals, even when measured at different times. The reliability test was conducted using SPSS v.26.0 for Windows with the Cronbach's Alpha method. If Cronbach's Alpha $>$ 0.60, the questionnaire being tested is considered



reliable. The results of the reliability test showed that the instrument for measuring the use of accounting modules had a Cronbach's Alpha value of $0.776 > 0.60$, meaning that the instrument is "reliable."

Table 1. Conclusion of Instrument Test Results for Accounting Module Usage Variab

Instrument test	Result	Description
Validity test	$0,291 - 0,587 > 0,260$	Valid
Reliability test	$0,776 > 0,60$	Reliabel

Based on Table 5, the results of the validity test show that the r-count values (0.291-0.587) are greater than the r-table value (0.260), meaning that all the items in the questionnaire on the use of accounting modules are valid. The reliability test results show a Cronbach's Alpha of 0.776, which is greater than 0.60, meaning that all the questionnaire items on accounting module usage are reliable.

Hypothesis Testing

Simple Linear Regression Analysis

Simple linear regression is used in this study to measure the effect of using accounting modules on students' learning outcomes. The analysis was conducted using SPSS V.26 for Windows. The equation model shows a constant value of 6.466, meaning that if the use of accounting modules is zero, the variable of learning outcomes is 6.466 units. The regression coefficient of 0.312 means that if the use of accounting modules increases by one unit, the learning outcomes will increase by 0.312 units.

Partial Test (t-test)

The t-test is used to test the hypothesis and to determine how significant the effect of accounting module usage is on students' learning outcomes. To determine the effect of accounting module usage on learning outcomes, the t-test compares the significance value to <0.05 . A variable is considered to have an effect if the significance value obtained is smaller than 5% ($\alpha=0.050$). Based on the t-test data, the significance value was $0.000 < 0.05$, meaning that the use of accounting modules has a significant effect on students' learning outcomes. Since both variables have significance values smaller than 0.05, the hypothesis that states there is a positive and significant partial effect of accounting module usage on the learning outcomes of 12th-grade accounting students at SMK Negeri 1 Makassar is accepted.

Coefficient of Determination (R^2)

The coefficient of determination (R^2) is used to determine the contribution of the accounting module usage variable to the learning outcomes of students. The R^2 value ranges between zero and one ($0 \leq R^2 \leq 1$). If R^2 is close to one, it means that the use of accounting modules can explain almost all of the variance in students' learning outcomes. If R^2 is small (closer to zero), it means that the use of accounting modules explains very little of the variance in students' learning outcomes.

The coefficient of determination obtained was 0.529 or 52.9%, meaning that the use of accounting modules contributes 52.9% to students' learning outcomes, while the remaining 47.1% is influenced by other factors.

Discussion

The research results indicate a significant role for accounting modules in enhancing student learning outcomes, which aligns with the existing literature on the use of learning modules as a critical instructional tool. The descriptive percentage analysis reveals that the overall usage of accounting modules at SMK Negeri 1 Makassar is rated highly, with an average percentage score of 85.8%. However, despite this strong usage, certain instructional aspects, such as the definition of instructional objectives, the clarity of topics, the teacher's role in the learning process, and the sequence of student activities, fell below the average percentage score. This suggests that while the overall implementation of the accounting module is well-received, there are areas that could be further improved to optimize its effectiveness.

The results of the instrument validity and reliability tests support the robustness of the data collection tools used in this study. All items measuring the use of accounting modules were found to be valid, with a calculated r-value exceeding the r-table value, and the reliability of the instrument was confirmed with a Cronbach's Alpha score of 0.776, indicating consistent and reliable results. This ensures the accuracy of the data collected on the relationship between module usage and learning outcomes.

In terms of hypothesis testing, the simple linear regression analysis shows a positive and significant relationship between the use of accounting modules and student learning outcomes. The regression coefficient of 0.312 suggests that for every unit increase in the use of the accounting module, the student learning outcome increases by 0.312 units. This finding is reinforced by the t-test, where a significance value of 0.000 (less than the 0.05 threshold) confirms that the use of accounting modules has a statistically significant effect on learning outcomes. This supports the hypothesis that the effective use of accounting modules positively influences student performance.

Furthermore, the coefficient of determination (R^2) of 0.529 implies that 52.9% of the variance in student learning outcomes can be explained by the use of accounting modules. This is a substantial contribution, indicating that the module plays a crucial role in shaping student success. However, the remaining 47.1% of the variance is influenced by other factors, such as teacher quality, student motivation, classroom environment, and access to additional learning

resources. These factors highlight that while accounting modules are a vital tool in the learning process, they are not the sole determinant of student achievement.

In conclusion, the findings demonstrate that the use of accounting modules has a positive and significant impact on the learning outcomes of 12th-grade accounting students at SMK Negeri 1 Makassar. However, to maximize the potential benefits, efforts should be made to improve instructional elements such as clarity of objectives and teaching methodologies, while also considering other factors that contribute to student success.

CONCLUSION

Based on the results of this study, it can be concluded that the use of accounting modules has a significant positive effect on the learning outcomes of 12th-grade accounting students at SMK Negeri 1 Makassar. The analysis shows that the average usage of accounting modules is rated very high, with a score of 85.8%. However, there are still some areas, such as the clarity of instructional objectives and the role of teachers, that require improvement to optimize the effectiveness of the modules. The validity and reliability tests confirm that the research instruments are both valid and reliable, ensuring the accuracy of the data collected. Furthermore, the regression analysis and t-test results show that there is a positive and statistically significant influence of accounting module usage on student learning outcomes, with the coefficient of determination (R^2) indicating that 52.9% of the variation in learning outcomes is attributable to the use of accounting modules. Although the accounting module significantly contributes to improving learning outcomes, other factors also play a role, accounting for 47.1% of the remaining variance. Therefore, while the module is a crucial tool, continuous efforts are needed to address other aspects of the teaching and learning process to further enhance student performance.

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