

DEVELOPMENT OF COST ACCOUNTING TEACHING MATERIALS STUDY IN THE ACCOUNTING EDUCATION STUDY PROGRAM

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ABSTRACT: *Distance learning has the effect of limited access to information, including ownership of teaching materials. Lecturers as facilitators are required to be creative in improving the quality of learning. For this reason, it is necessary to develop appropriate teaching materials to support learning, especially in cost accounting courses that are relevant to the concept of the KKNi task. In general, this study aims to produce quality teaching materials that are feasible and effective for use in learning. This study uses research and development (R&D) methods with the Borg and Gall concept. This research was conducted in the accounting education study program of the Faculty of Economics, the State University of Medan with a population of all classes of students taking cost accounting courses in the 2021/2022 academic year. The sample was determined by purposive random sampling and the sample class was used for the application and testing of limited individual, small, and field samples. To determine the feasibility of this draft of teaching materials to be validated by accounting experts, as well as to test the practicality and effectiveness of teaching materials tested on students. This research was conducted to produce appropriate, effective, and ISBN teaching materials. After all revision notes were corrected according to the direction of the validator, then the textbook was tested on 3 individual groups, 6 small groups, and 38 students in the field. Based on the results of individual trials, small group trials, and field group trials from all aspects assessed, an average of 86.96% (very good) was obtained. From the results of the effectiveness trial, it can be concluded that the learning outcomes of students who use textbooks are significantly higher than the learning outcomes of students who do not use teaching materials. Based on these results, it can be concluded that the teaching materials developed are feasible to use.*

KEYWORDS: development, teaching materials, cost accounting

INTRODUCTION

Education is essentially a process to assist humans in developing their potential so that better changes can be achieved, this is stated in Law no. 20 of 2003 Article 1 concerning the

National Education System states as follows: Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious-spiritual strength, self-control, personality, intelligence, noble character, and skills needed by himself, society, nation, and state.

Seeing the reality that is happening, it is necessary to make improvements in the learning process, one of which is to increase the effectiveness of learning by developing teaching materials that can increase student learning motivation. Teaching materials are very important in the learning process, because of their large role and influence on the achievement of the desired educational goals. With these capable teaching materials, conventional learning habits carried out by teachers can be more innovative by creating interesting learning processes and generating learning motivation.

The problem is that the world is currently experiencing a COVID-19 pandemic. The government implements a policy of Work From Home (WFH). Finally, the Ministry of Education in Indonesia also issued a policy, namely by closing schools and replacing the teaching and learning process (KBM) using an online system. For this reason, lecturers as lecture facilitators are required to be more creative and innovative in finding better learning solutions that are more comfortable to implement both in terms of students and lecturers. One of the problems that arise is that students have difficulty getting teaching materials due to limited access during the COVID-19 pandemic, which has not yet ended. One of his complaints was in the Cost Accounting course in the accounting education study program. One of the breakthroughs made was compiling textbooks through a series of research and development of teaching materials (R&D) to produce appropriate and effective books used in student learning.

Formulation of the Problem

To operationalize this research agenda as a whole, this study will focus on developing cost accounting teaching materials. The agenda is detailed in the following problem formulation: Is the cost accounting teaching material developed suitable for use in student learning?

Research Purposes

Based on the formulation of the problem above, the objectives of this research are: To test and find out whether the developed cost accounting teaching materials are suitable for use in student learning.

RESEARCH METHODS

This study uses research and development methods. The purpose of research development according to Borg & Gall^[1] is to develop and validate research products. The steps of this process are usually referred to as the R&D cycle, which consists of studying the research

findings relating to the product to be developed, developing the product based on these findings, testing areas in the setting in which the product will be eventually used, and revising it to correct any deficiencies identified. found in the stage of submitting testing. In more stringent programs of R&D, this cycle is repeated until the test data fields show that the product meets the defined behavioral objectives.

The steps in research and development are carried out as many as 10 steps with the following stages: 1) potential and problems, 2) data collection, 3) product design, 4) design validation, 5) design revision, 6) product testing, 7) first product revision, 8) use trial, 9) second product revision and 10) mass production.

Feasibility Test

Trial of social skills-based teaching materials developed through the stages, namely: Expert Test (Expert Judgment). After the process of developing teaching materials was carried out, trials were carried out by a team of experts. This test phase aims to determine whether the development of this product will run well in the user environment. The implementation of the expert/expert test is intended to obtain input from experts/experts who have competence in the relevant field of study. In this context, the expert/expert test is carried out to the learning material/content experts. The results of the expert/expert test are also in the form of comments, criticisms, suggestions, corrections, and assessments of the developed teaching material products.

RESEARCH RESULTS AND DISCUSSION

Material expert validation data

Material expert validation of the materials used in the developed teaching materials was carried out by two experts. Material expert validation is carried out to obtain input that will be used to improve the quality of material in cost accounting teaching materials. Validation results in the form of an assessment score of the components of the quality of learning materials contained in the product development of teaching materials. From the assessments obtained from the expert team, it can be seen that from the overall indicators displayed, the average response value is 85.83% with very feasible criteria, when viewed from each indicator there are eight very feasible response indicators including conformity of content with basic competencies and learning objectives, the correctness of the material concept is reviewed from the scientific aspect, the presentation of apperception reminds students of the previous material, the clarity of the learning topics, the continuity of the material, the suitability of the level of difficulty and abstraction of the concept with the cognitive development of students, the linkage of material examples with real conditions in the company with the examples given and accuracy. materials and examples to develop independent learning. While the other four indicators received a decent response including

indicators of material coverage, material completeness, clarity of examples given, and the charge of cognitive, psychomotor, and affective aspects of the material presented.

Based on these results, it can be concluded that in general, the teaching materials developed are feasible to be developed as teaching materials in the cost accounting course in the accounting education study program at the Faculty of Economics, Medan State University.

Description of Test Results

Based on the results of the validation of teaching materials carried out by experts, in developing teaching materials so that they are suitable for use in learning, the next step is to conduct trials on students. This trial was carried out in three stages, which included individual trials, small group trials, and field trials, which will be explained in more detail below.

Individual trial

Based on the results of individual group student assessment data on cost accounting teaching materials, it can be seen that for the material aspect category with the question description of the learning material it is easy to understand with a total of 13, where 2 respondents chose 4, and 1 respondent chose 5, with an average obtained of 87% and entered as very good criteria. The second question material learning in teaching materials is presented clearly and easy to follow with a total of 14 with an average of 93% and entered as very good criteria. The third question content of the material in the teaching materials as a whole can attract students' interest in learning obtained the number 13 with a percentage of 87% with very good criteria. Fourth question delivery of material incoherent teaching materials and following the real conditions of industrial companies obtained the number 14 with a percentage of 93% entered as very good criteria. Fifth question teaching materials This cost accounting contains an evaluation that tests how far my understanding of the material presented has reached 14 with a percentage of 93% entered as a very good criterion. The sixth question using this teaching material makes me more excited to learn cost accounting, I get the number 13 with a percentage of 93% entered as a very good criterion from the material aspect, it obtained an average percentage of 87% with very good criteria. If we look at the material aspect category, from the six question items, the average respondents' answers are in the very good category. When viewed from the presentation aspect of the five questions, the five questions contained two very good answers and three in the good category. Viewed from the language aspect, from the three questions posed there were two very good answers and one in the good category.

Overall, the answers from the results of this individual group trial can be for the three categories of aspects assessed, the average results for the material aspect are 90%, the presentation aspect is 87 and the language aspect is 87%. If we combine the three categories, the average is 88% and is included in the very good category. For more details, the average

percentage of assessment results for individual trial cost accounting teaching materials can be seen in Table 1 below.

Table 1. The average percentage of the assessment results of cost accounting teaching materials Individual trial

No	Category	Percentage	Criteria
1	Material aspect	90%	Very good
2	Presentation aspect	87%	Very good
3	Language aspect	87%	Very good
Average		88%	Very good

(Sources are processed by researchers based on the results of individual trials)

Small Group Trial

Small group trials were conducted on six students of the accounting education study program, by dividing the categories for high-achieving students as many as two, two medium-achieving students and two low-achieving students. The purpose of this small group trial is to find out more deeply what the shortcomings of the developed teaching materials are when viewed from the aspect of learning quality.

Overall, the answers from the results of the individual group trials can be for the three categories of aspects assessed, the average results for the material aspect are 89%, the presentation aspect is 89% and the language aspect is 89%. When we combine the three categories, the average is 89% and is included in the very good category. For more details, the average percentage of the results of the assessment of individual trial cost accounting teaching materials can be seen in the table can be seen in Table 2 below.

Table 2. The average percentage of the assessment results of cost accounting teaching materials small group trial

No	Category	Percentage	Criteria
1	Material aspect	89%	Very good
2	Presentation aspect	89%	Very good
3	Language aspect	89%	Very good
Average		89%	Very good

(Sources processed by researchers based on the results of small group trials)

Field Trial Results

This field trial was carried out by first correcting all the weaknesses found in both individual trials and small group trials. This field trial was carried out in the accounting education study program. This trial was conducted on accounting lessons with a total of 38 respondents through e-learning. The results of the questionnaire distributed to 38 students can be seen as follows:

Overall the answers from the results of this individual group trial can be for the three categories of aspects assessed, the average results for the material aspect are 85%, the presentation aspect is 85% and the language aspect is 85%. If we combine the three categories, we get an average of 85% and fall into the very good category. For more details, the average percentage of the results of the assessment of cost accounting teaching materials for individual trials can be seen in the table, which can be seen in Table 3 below.

Table 3. The average percentage of the assessment results of cost accounting teaching materials Field Group Trial

No	Category	Percentage	Criteria
1	Material aspect	85%	Very good
2	Presentation aspect	85%	Very good
3	Language aspect	85%	Very good
Average		85%	Very good

(Sources processed by researchers based on the results of field group trials)

The first hypothesis in this study is to determine the feasibility of cost accounting teaching materials. To find out whether this teaching material is appropriate or not, it can refer to the results of the validation and trials carried out. Starting from material expert validation, and individual trials, small group trials, and field trials

Table 4. Summary of the results of material expert validation and testing

Feasibility test	Average	Information
Material expert	85.83%	Very good
Individual trial	88%	Very good
Small group trial	89%	Very good
Field trial	85%	Very good
Total	86.96%	Very good

(Source processed by the author)

From table 4 above, it can be seen that the average score obtained is very good. For material experts, the average obtained is 85.83% with very decent criteria. After conducting the expert validation test, based on the results of individual trials, an average of 88% (very good) was obtained. Meanwhile, small group trials obtained an average of 89% with very good criteria. Field trial group 85% (very good). From the overall value of the aspects obtained, an average of 86.96% (very good) based on these results it can be concluded that the teaching materials developed are feasible to use.

To prove the second hypothesis, namely to test whether the resulting product is effective or not, the researchers used the t-test to see whether there was a significant difference between the learning outcomes of cost accounting with the use of teaching materials and without using teaching materials, carried out using a different test (test -t). with the following criteria:

- If the value of $t_{hit} > t_{tab}$, it is said that there is a significant difference between the learning outcomes of cost accounting between the experimental class and the control class.
- If the value of $t_{hit} < t_{tab}$, it is said that there is no significant difference between the learning outcomes of cost accounting between the experimental class and the control class.

In summary, the results of the hypothesis test calculations are listed in Table 5.17 below:

Tabel 5.17 Hypotesis test results with T tes

	<i>Kelas Ekspriemen</i>	<i>Kelas Kontrol</i>
Mean	78,28947368	74,73684211
Variance	41,67069701	31,11806543
Observations	38	38
Pooled Variance	36,39438122	
Hypothesized Mean Difference	0	
Df	74	
t Stat	2,566905038	
P(T<=t) one-tail	0,006140705	
t Critical one-tail	1,665706893	
P(T<=t) two-tail	0,01228141	
t Critical two-tail	1,992543495	

Sourch : data processing

Based on the results of the t-test calculations, in Table 5.17 data is obtained that $t_{count} > t_{table}$ or $2.5669 > 1.9925$ or in other words H_0 is rejected and H_a is accepted, it can be concluded that student learning outcomes in cost accounting courses using accounting teaching materials cost is higher than students who are taught without using teaching materials.

CONCLUSIONS AND SUGGESTIONS

Conclusion

1. Based on the validation results from the experts, it can be concluded that in general, the teaching materials developed are feasible to be developed as teaching materials in the cost accounting course in the accounting education study program, Faculty of Economics, Medan State University.

2. Based on the results of individual trials, small group trials, and field group trials from all aspects assessed, an average of 86.96% (very good) was obtained. Based on these results, it can be concluded that the teaching materials developed are feasible to use.
3. Based on the results of the product effectiveness test, it is known that it is concluded that student learning outcomes in cost accounting courses that use cost accounting teaching materials are higher than students who are taught without using teaching materials.
4. The results of this study are expected to increase learning motivation and also to increase student learning independence. The preparation of cost accounting teaching materials is expected to be as practical as possible with structured and gradual completion steps.

Suggestions

Based on the conclusions above, the suggestions in this study are:

1. Because these teaching materials are very useful to help improve student achievement and learning independence, FE lecturers should make similar teaching materials for other subjects.
2. For students to be able to use these teaching materials, especially accounting education students, because the teaching materials that I have developed are very relevant to accounting lessons at SMK as a place for alumni to teach later.

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