

Economics Modules for Students of the Economics Study Program, State University of Medan T.P. 2022/2023

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ABSTRACT: *Learning during COVID-19, which is conducted through online tutorials, provides limited access to students to get information about teaching materials, including economics teaching materials, especially essential materials. As faculty, we are required to be more creative in anticipating this problem, so that the quality of learning has improved. For this reason, it is necessary to compile a module that can be prepared by students, especially modules of the economics course that are in accordance with the requirements of the curriculum of the Indonesian national qualification framework. This research aims to make a module that is relevant and suitable for use in the learning process. The method used is the research and development of Borg and Gall. This research was conducted with students of the Economics Studies Program of the Faculty of Economics of Medan State University with a population of all students who took the Microeconomics course 2022/2023. With samples divided into three, that is, 3 people for individuals, 6 people for small groups and 30 people for field groups. To see the feasibility, this draft of the module was validated by validators who are experts in their fields, and to see the technicality, this module was tested to the students. The results of this study show that this developed module should be used in economic learning*

KEYWORDS : development, economics , module, essential,

INTRODUCTION

The main focus of this study is to discuss among students essential materials in economics disciplines. Essential material is the subject and the most basic in each discipline in the educational unit depending on the needs of each region or school and adapted to the current conditions, where the material is a subject that requires a mature intelligence and tenacity, which requires calculation, analysis and interpretation of the resulting numbers in economics

(mining economy). For this reason, teachers as facilitators of expository classes should be more active in the search for ways to solve the problems experienced by students, in order to create a better and more comfortable learning to be carried out both among students and among teachers. One of the complaints that arise in students is often the equivalence in the interpretation of certain materials in economics, the difficulty of obtaining teaching materials (modules) caused by the differentiation of online tutors during the last COVID-19 pandemic. One of the problems is in economics courses, both macro and micro. In this sense, the breakthrough made is to compile modules through a series of research and development (R&D) modules to produce modules that are viable and effectively used in student learning..

Problem statement.

Based on this background, it is important to develop economic modules on essential materials as an effort to improve the quality of learning. The aim to be achieved in this research is to produce a module in the form of modules that are relevant to the concept of curricular tasks of Indonesia's national qualifications framework. The modules developed are designed so that students can connect the knowledge acquired with real cases faced in life to then provide accurate solutions and communicate them properly, while training the student's learning independence, anywhere and anytime. From this research and development process, until its production, it is expected that this module will be relevant to equip students' competencies, improve learning outcomes and increase students' learning independence. To implement this in-depth research agenda, this study will focus on the development of modules in the form of essential materials economy modules. The formulation of the problem in this study is: "Are economic teaching materials on the essential material developed feasible for use in the teaching and learning process?"

Research Objectives.

Based on the formulation of the problem, the objective of this research is to verify if the module of economics of the essential material developed is suitable for use in the process of teaching and learning of students?

Research Methods

The project in this study is research and development (R&D), from this research it is expected to produce products in the form of economic modules as didactic materials for essential materials. This research will produce results related to the product to be developed. In addition, based on the results of these findings, improvements were made as evaluation material for the tests that had been performed, until finally the product met the requirements of Learning, Efficiency and Time Effectiveness, as didactic material in economics courses, especially in essential materials.

Data analysis

The development of modules in the Economics course will be of good quality if it has been evaluated both in terms of validity, practicality and effectiveness, which can be described below:

Feasibility testing, evaluation data that have been validated by the validators are analyzed in a descriptive qualitative way that is the basis for making improvements in the modules, so that the modules that are suitable for use are obtained. The design of the developed module is evaluated by validators using validation rubrics. All evaluations of the aspects are measured with the Likert Scale, in this case the responses to the items of the instrument are classified into five scales, and each indicator measured receives a scale score from 1 to 5, as shown in table 1 below:

Table 1. Indicators of the Feasibility Scale

| Scale | Diskription |
|-------|---------------|
| 5 | excellen |
| 4 | good |
| 3 | less good |
| 2 | not good |
| 1 | very impolite |

To assess the feasibility of a module to be applied to learning economics of essential materials, from the data obtained, the weight of the response of each validator is determined by calculating the average score using the following formula (Ernawati and Sukardiyono, 2017):

$$\text{Average total score} = \frac{\text{Total score}}{\text{Number of rators}}$$

Then for the formula the percentage of results can be calculated by the following formula.

$$\text{Result} = \frac{\text{Average Total Score}}{\text{Max score}} \times 100\%$$

Eligibility categories are based on the following criteria:

Table 2. Eligibility Criteria for Teaching Materials

| No | score in the % | eligibility category |
|----|----------------|----------------------|
| 1 | < 21 % | Very unsuitable |
| 2 | 21 – 40 % | Not worth it |
| 3 | 41 – 60 % | decent enough up |
| 4 | 61 – 80 % | feasible |
| 5 | 81 – 100 % | Very decent |

Practicality Test. This test is carried out to verify that the developed module can be read well and is easy to use so that it meets the criteria of Learning, Efficiency and Time Effectiveness. To test it using a Likert scale and later it will be converted into predetermined value criteria for the level of practicality of using the didactic material.

To calculate the level of practicality of this module, the collected elevator is calculated using the following formula (Akbar, 2011)

$$V_p = \frac{TSEp}{s-max} \times 100\%$$

Keterangan :

- Vp = Validity of Practicality
 TSEp = Total Empirical Score of Practicality
 S-max = Maximum expected score

To determine the practicality, the results obtained are described as criteria as shown in table 3 below:

Table 3. Practicality Criteria

| Percentge | Category | Discription |
|------------|----------------|----------------------------------|
| 76% - 100% | Very Practical | Can be used without revision |
| 51% - 75% | Practical | Can be used with minor revisions |
| 26% - 50% | Less practical | It is recommended not to use |
| 00,% - 25% | impractical | Unusable |

Research And Product Development Results

The process of elaboration and development of economic modules on this essential material is carried out sequentially according to the context of problems faced by students related to toipik or essential economic material in economic learning, which has been found to date, based on experience during the teaching period both in high school and in universities, as well as professors who teach in economics. And based on sharing with fellow professors who both teach economics and input material for me in compiling this module, especially what obstacles they face during lectures, especially to explore important issues related to essential economic material, both conceptually and theoretically.

Based on the results of the observations I made with the professors who teach in the economics courses, it was obtained the information that the expository classes had occurred according to the predetermined program and guided what was outlined by the study program, but the results

achieved were not yet in accordance with the expected, this can be seen by the learning results of the students not yet as expected, The lack of motivation to learn for students, this is inseparable from the limited literature possessed by students, especially most lectures are conducted through e-learning. During the expository classes carried out by e-learning, the results achieved are not great, in addition to the lack of interest in learning from the students, it is also difficult to follow and observe their activities during the classes.

Develop evaluation tools

These assessment instruments can assist in the collection of data or information. Evaluation is an activity to collect information about the work or not of an object that is then used to determine alternative solutions that are appropriate in making decisions. From the understanding of these instruments and evaluations, the evaluation instruments can be called evaluation instruments or evaluation instruments used to collect data or information.

Product Design Module

The initial discussion of the design of this module is the compatibility between learning objectives, learning subject, methods used, assessment tools and so on, in general the discussion process is more focused on determining what material will be dumped into modules that are adjusted to the syllabus. It then displays the project structure of the module to be developed. Each item in this project is based on the provisions in creating a standard module. Although the initial design of the product is a draft that must be validated by experts, the researchers try their best to develop modules suitable for use by teachers and students.

Validation data from materials experts

The validation of materials experts on the material used in the developed module material was carried out by an economist, Dr. Eko Wayunugrahadhi, M.Si. He is a professor in the graduate school of Medan State University, the validation of materials experts is carried out to obtain inputs that are used to improve the quality of the material in essential modules. The results of the validation, in the form of evaluation scores of the quality components of the module material contained in the module development products, can be seen in the following table

Table 4. Assessment Score of Economics Teaching Module by Material Experts

| No | Aspect | Indicator | Score | Category |
|-------------------|------------------------------------|---|---------------|-------------|
| 1 | Suitability of Learning Objectives | Clarity of basic competencies | 4 | feasible |
| 2 | | Clarity of learning objectives | 5 | very decent |
| 3 | Material quality | Accuracy of the content of the material | 5 | very decent |
| 4 | | The correctness of the content of the material | 4 | feasible |
| 5 | | Clarity of the content of the material | 5 | very decent |
| 6 | | Systematics of material content | 4 | feasible |
| 7 | | Compatibility of the material with basic competencies | 5 | very decent |
| 8 | | Completeness of the content of the material | 4 | feasible |
| 9 | Presentation of material content | Language clarity | 4 | feasible |
| 10 | | The usefulness of images to support the material | 4 | feasible |
| 11 | | The usefulness of the video to support the material | 4 | feasible |
| 12 | | Ease of understanding the content of the material | 5 | very decent |
| 13 | Presentation of Self-Evaluation | Clarity of practice questions | 5 | very decent |
| 14 | | Suitability of practice questions to the material | 5 | very decent |
| 15 | | Practice Problem feedback | 4 | feasible |
| Total | | | 67 | |
| Average | | | 4,47 | |
| Percentage | | | 89,33% | very decent |

(Source: processed by the researchers based on the results of the validators' evaluations)

From the evaluation obtained with the team of experts in Table 4, it is observed that of all 15 indicators obtained an average response value of 4.47 or 89.33% with a very viable category, when visualized of each indicator there are seven indicators of very viable response, while the remaining eight indicators obtain a decent response. Based on the tabulation results of the validators, it can be seen that the developed module is suitable to be used as didactic material in the economics of essential materials course in the science studies program, Faculty of Economics, Medan State University.

Description of test results

The next step to see if this module is feasible to develop is to conduct tests for students who are taking microeconomic theory courses, who leave in the current semester. This trial was carried out in several stages as needed in this context the researcher took three steps that I will do, which include the individual trial phase, which was distributed to three students, small group trials distributed to six students, and field trials, which were distributed to thirty students, the following will be explained in more detail

Individual tests

As described above, this individual essay was conducted on three students of the economics course, dividing three categories, namely, a student who has low performance, a student who has average performance, and a student who has high performance. The aim of this individual essay is to see what are the weaknesses and what are the shortcomings of this developed module if we look at all aspects of learning, so that it can be improved as it should be.

Based on questionnaires applied to students in individual groups on economic modules on essential and difficult to understand material that appears in Table 5. Based on these data, when viewed under the aspect of the material with the initial question, the description of the didactic material is easy to understand, with a total of 13, where 2 respondents gave the number 4, and 1 respondent gave the number 5, with a score of 87% and included in the very good criterion. The next issue is that the didactic material in the didactic materials is presented in a clear and easy to follow way with a total of 14 with a score of 93% and is included in the very good criteria. The next issue is that the content of the module material as a whole is able to attract students to learn how to get a number of 13 with a percentage of 87% and is included in the very good criteria. The next question is the delivery of the material in the module in order and according to the essential material obtained grade 14 with a score of 93% and is in the very good criterion. The next question of this essential materials economics module contains an assessment testing the extent to which my understanding of the material presented obtained a number of 14 with a percentage of 93% entered as a very good criterion. The last question using this module made me more excited to study economics, getting a total of 13 with a percentage of 87% enrolled in the very good criteria. From these results, it can be explained that, under the material aspect, an average percentage of 90% is obtained with very good criteria. In the material aspect category, of the six items of the question, the respondent's average response was in the very good category.

In addition, when viewed from the aspect of presentation of the whole question, it can be explained as follows, for the first question the presentation of this module made me interested in reading it, obtaining a percentage of 80% inserted in the very good criteria. The next issue

is that this module is equipped with a summary of the material that covers the content of the material obtaining a percentage of 93%. The entry in the category is very good. The third issue of using modules in the learning process allowed me to learn faster and easier to understand: the learning material obtained a percentage of 87%. The entry as a category is very good. Fourth question Each learning step in this module clearly earns a percentage of 93%. The entry as a category is very good. The example of the fifth question given in this module helps to understand material that is difficult to understand getting a percentage of 87% inserted as a good criterion, from the point of view of presentation getting an average percentage of 90% with very good criteria. By the results of the tabulation, when viewed from the general questions asked, all the answers entered in the category are very good.

In addition, when we look under the linguistic aspect, from the general questions asked we can see the following, for the first question the language used in this module is in accordance with the improved spelling obtained a percentage of 93% inserted in the very good category. The statement of the two languages used in this economics module is easy to understand, obtaining a percentage of 87% enrolled in the very good category. The third phrasal structure question used in this economics module is clear and simple getting a percentage of 80% getting into the very good criteria, from the language aspect getting an average percentage of 87% with very good criteria. From the results of the tabulation obtained, we can see that of all the questions asked, the answers obtained enter very well into the querrriteria. When viewed together, the answers obtained in individual groups for all categories of aspects evaluated obtained results for the material aspect 90%, the presentation aspect 90% and the language aspect 87%. If we look at the three categories, we get an average score of 89% and we get into the evaluation very good. For more details, the average percentage of the results of the evaluation of the economic module of the individual trial can be seen in Table 5.below.

Table 5. Average percentage of economic module assessment results Individual trials

| No | Category | Percentage | Criteria |
|---------|-------------------------|------------|-----------|
| 1 | Material aspect | 90% | Excellent |
| 2 | Aspects of presentation | 90% | Excellent |
| 3 | Language aspect | 87% | Excellent |
| Average | | 89 % | Excellent |

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

Small group trials

Small group trials were conducted with several students who attended economics courses, which were divided into three categories, namely for high-performing students, middle-income

students and low-performing students with two people each. The basis for the consideration of this essay in small groups is to analyze more deeply the weaknesses and deficiencies of this developed module when viewed under the aspect of the quality of learning. Based on the calculations obtained and the results of the tabulation, it was verified that in small groups of students consisting of six people who were tested, the results appeared in Table 6. From the table, it can be observed that for the category material aspects with questions that describe didactic material was easy to understand, a score of 27 was obtained, with an average percentage of 90% and was in the very good criterion. The next question of didactic material of the module is presented in a clear and easy to follow, obtained grade 28 and average percentage of 93% and is in the criteria very good. The next issue is that the content of the module material as a whole is able to attract the interest of students in learning, obtained a grade of 28, with a percentage of 93%, being in the criteria very good. The next question is the delivery of the material in the module in order and according to the essential material obtained a score of 27 with a percentage of 90% being in the criterion very good. The next question of this economics module contains an assessment that tests the extent to which my understanding of the material presented is obtained a score of 23 with a percentage of 77% and is in good criteria. The last question using this module made me more excited to learn economics, I got a score of 28 with a percentage of 93% enrolled as a very good category in the material aspect, getting an average percentage of 89% with a very good category. When viewed from the material aspect, for all the items of the question that the respondents answered, five are in the very good category and one is in the good category.

In addition, when viewed under the aspect of presentation for all questions, it can be described as follows, because the first question of presentation of this module aroused my interest in reading it, obtained a score of 90% and entered very well in the criteria. The next question of this module is equipped with a summary of the material that includes the content of the material obtained a percentage value of 87%. And it entered the category very well. The next issue is that using modules in the learning process allows me to learn faster and easier to understand the learning material, getting a score of 90%. The entry in the category is very good. The next question for each learning step in this module clearly receives a percentage of 90%. The entry in the category is very good. The last question, the example given in this module, helps to understand material that is difficult to understand, getting a number of 93% inserted in the very good criteria. In general, from all the questions asked, it can be concluded that, in the presentation aspect, all the answers are in the category of very good.

In general, the responses of the results of this study in small groups for all categories of aspects evaluated obtained mean scores for the material aspect 89%, presentation aspect 91% and language aspect 88%. If we add for the whole category, the average is 89% and it is in the very

good category. The results of obtaining the average percentage of the evaluation of the experimental economist module in small groups can be seen in Table 6 below

Table 6. Average percentage of the results of the evaluation of the Economics module Essays in small groups

| No | Category | Percentage | Criteria |
|---------|-------------------------|------------|-----------|
| 1 | Material aspect | 89% | Excellent |
| 2 | Aspects of presentation | 91% | Excellent |
| 3 | Language aspect | 88% | Excellent |
| Average | | 89 % | Excellent |

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

Field Test Results

The last trial is a field trial, used as a basis and evaluation material for previous trials, where this trial was conducted on a sample of thirty students, therefore, it is hoped that this trial can improve the weaknesses that occurred in previous tests, both in individual and small groups

Based on the results of the evaluations of the students of the field group on economic didactic materials on essential material of all the aspects questioned, including the description of the subject is easy to understand, obtaining a score of 134, composed of four respondents choosing a score of 3, eight respondents choosing a score of 4, and eighteen respondents choosing a score of 5, if we see that the average score is 89% and classified as very good criteria.

The second statement of this group of didactic materials of the module is presented in a clear and easy to understand way, obtaining 134 with a percentage of 89% and classified as a very good criterion. The next issue is that the content of the module material as a whole is able to attract students to get a grade of 134 with a percentage of 89% with very good criteria. The next question is the delivery of the material in sequential modules and according to the essential material gets a score of 132 with a percentage of 88% entered as very good criteria. The next question of this economics module contains an assessment that tests my understanding of the material presented by getting a score of 130 with a percentage of 87% going into the very good criteria.

In the question that used this module, I was more excited to learn, we obtained a score of 131 or 87%, which was classified as a very good criterion, so from the material aspect we obtained a percentage of 88% with very good criteria. And of all the items in the question, all the students' answers are in the very good category,

When viewed under the aspect of presentation of the whole question, it can be described as follows, because the first question of presentation of this module made me interested in reading, obtained a percentage of 87% inserted in the good criteria. The question of these two modules is endowed with a summary of the material that covers the content of the material obtained a percentage of 87%. The entry in the category is very good. The third issue of using modules in the learning process allowed me to learn faster and easier to understand: the learning material obtained a percentage of 89%. The entry in the category is very good. Fourth question Each learning step in this module clearly earns a percentage of 87%. The entry in the category is very good. The last question, an example of the example given in this module, helps to understand material that is difficult to understand, obtaining a percentage of 87% inserted in the very good criterion. If we look at the whole question, all the answers are in the very good category.

Judging by the linguistic aspect, of the three questions asked we can observe below, for the first question the language used in this module is in accordance with the improved orthography obtained a percentage of 86% inserted in the very good category. The second question, the language used in the economics module is easy to understand, obtaining a percentage of 87% enrolled in the very good category. The last question, the phrasal structure used in this module of economics, is clear and simple, obtaining a percentage of 89% of entry in the very good criteria. Of all the questions asked, the answers that are in the category are very good, and if all the categories go together, the average score is 87%, and it is in the very good category.

From a comprehensive clinical trial for the field group of all aspects evaluated, which include aspects of material, presentation and language, scores were obtained for each aspect in 88%, 87% and 87%. Of these three aspects, when combined, they get an average score of 87%, which is classified as a very good category. We can see this in table 7 below

Table 7. Average percentage of the results of the evaluation of the economic module Field group trials

| No | Category | Percentage | Criteria |
|---------|-------------------------|------------|-----------|
| 1 | Material aspect | 88% | Excellent |
| 2 | Aspects of presentation | 87% | Excellent |
| 3 | Language aspect | 87% | Excellent |
| Average | | 87 % | Excellent |

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

Based on the tabulation results of the trials performed, which include individual trials, small group trials and field group trials as a basis for determining whether the developed modules

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are suitable for use, where the scores obtained respectively for individuals are 89%, for small groups 89% and for field groups 87%, and the average score is 88%, with categories that are very good or suitable for use.

For clarity, the results in the acquisition of data from individual, small group and limited trials can be seen empirically in Table 8 below:

Table 8. Average percentage of media evaluation results Individual, small group and field group trials

| No | Category | Percentage | Criteria |
|---------|------------------|------------|-----------|
| 1 | Individual Group | 89% | Excellent |
| 2 | Small Groups | 89% | Excellent |
| 3 | Field Groups | 87% | Excellent |
| Average | | 88 % | Excellent |

(Sources processed by researchers based on trial results for all groups)

The table above explains that the individual group obtained an average percentage of 89%, while the small group obtained an average percentage of 89% and for limited field tests obtained a percentage of 87% and an average score of 88% in the development of essential modules of economics.

CONCLUSION

Based on the description above, the following conclusions can be drawn

1. The results of validation by module experts covering 4 aspects, namely aspects of suitability of learning objectives, material quality, presentation of material content, and presentation of module self-evaluation. The results of the assessment of the four aspects were declared "very valid" with an average percentage of 89.33%.
2. The results of the student trial were conducted through several steps, including individual trials of three students, small group trials of six students, and field trials of thirty students. The results obtained for the individual trials were in the "very good" category, with an average percentage of 89%. The results of the trial in small groups were in the "very good" category, with a percentage of 89%. The results of the field trials are in the "very good" category, with an average percentage of 87%. Thus, we can conclude that the module as developed economic didactic material is suitable for use in economic learning.

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