

# Problem based Learning Module's on Tax Education

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**Abstract:** Economic education students as prospective teachers and the academic community are expected to help the government educate taxation to the community. But so far there are still many students who complain that taxation is a difficult subject. Because of the many types of taxes and calculation methods. This study will test problem based learning based learning modules in taxation courses. This research was conducted to disseminate problem based learning based modules from previous studies that can be used by students studying independently. Students understand various types of taxes and how to calculate the amount of tax imposed on individuals and entities, so they can provide education back to the community. This study uses the 4D (four-D models) model. Four-D model development consists of 4 main stages, namely: 1) define (determine material), 2) design (design), 3) develop (development), and 4) disseminate (dissemination), 3 stages have been carried out in previous research so has produced a valid module and can be used for the final stage of deployment. The dissemination of taxation modules based on problem based learning tests the practicality and effectiveness of modules. From the results of this research, a problem based learning module is generated in the course of taxation which is quite valid, practical and effective. The practicality value of the module by students is 81.11% and the module can be categorized as practical in the learning process. The activity value of students from five categories observed in the learning process is 80.97% and the module can be categorized as effective. Students as prospective teachers and the academic community are expected to assist the Director General of Taxes in educating taxation to the public in order to increase public awareness and help the public to do tax calculations and reporting which will increase the tax payer ratio and increase tax revenue for the state in order to support development.

## 1 INTRODUCTION

Tax based on legal views is an agreement that arises because of the law which causes the obligation of citizens to deposit a certain amount of income to the state. Tax is an obligation for every citizen who has been regulated by the Law, because almost 80% of the state income sources come from taxes, thus making the government through the Directorate General of Taxes persistent to collect taxes from the public.

Education about the importance of taxes needs to be done, in order to increase public awareness and compliance in paying taxes and can reduce tax avoidance practices (tax avoidance) and tax evasion. Higher education has a strategic role in improving human resources. Many students think that taxation is a difficult subject, this can be seen from the low understanding of the material obtained by students

based on formative values. Factors that influence material understanding are learning intensity and learning facilities. Good understanding and learning facilities are needed in mastering the material. Learning facilities are complete learning tools both at home and on campus. One facility that supports learning intensity is teaching materials in the form of interactive lecture modules / books.

Based on observations of researchers in the field, the presentation of modules used by students in the form of material that is monotonous. So that students feel bored and less motivated to learn. Departing from this problem the use of problem based learning based learning modules is one alternative in overcoming these problems. The use of Problem based learning based learning modules aims to increase student involvement actively in the learning process. The use of this learning module is expected to increase student competence in understanding

material and learning independently without the help of a facilitator.

Preparation of problem based learning based learning modules has begun with previous research. From the results of previous studies it has been produced problem based learning modules with content material, language and design that are valid for use by students in taxation subjects. By presenting the problem based learning module, students are expected to be able to solve whatever problems they face.

## 2 THEORETICAL FRAMEWORK

### a. Learning Module

Modules are a set of teaching materials that are presented systematically so that users can learn independently or without a facilitator / teacher. Thus, a module can be used as teaching material instead of the teacher's function. The teacher has the function of explaining material with sound. A module must be able to explain material with communicative language for students according to their level of knowledge and age. Modules are a way of organizing subject matter that takes into account the function of education. The strategy of organizing learning material contains sequencing which refers to the making of the sequence of presentation of subject matter, and synthesizing which refers to efforts to show students the relationship between facts, concepts, procedures and principles contained in the learning material. To design learning material capability categories that can be learned by students, namely verbal information, intellectual skills, cognitive strategies, attitudes, and motor skills. The strategy of organizing learning material consists of three stages of the thinking process, namely the formation of concepts, interpretation of concepts, and application of principles (Santayasa: 2009).

According to Sanjaya (2010: 332-333), the purpose of using modules in the learning process is as follows; (a) Increasing the effectiveness and efficiency of achieving educational and teaching goals, (b) Encouraging students to be more active in independent learning, (c) So that the learning process does not rely too much on the teacher, meaning that there are or not teachers ) Learners can find out the results of self-learning in an advanced manner, (e) Learners can know the results of their own learning on an ongoing basis, and will know where their own weaknesses are.

According to the Ministry of National Education (2008b: 3-4) a module can be said to be good and interesting if there are characteristics as follows; (a) Self Instructional, that is through the module,

someone or participant learns to be able to teach themselves, not dependent on other parties, (b) Self Contained, that is, all learning material from one competency unit or sub-competency studied is contained in one module as a whole The aim is to provide the opportunity for learners to learn the learning material that is complete, because the material is packaged into one whole unit, (c) Stand Alone (stand alone) ie the module developed is not dependent on other media or does not have to be used together with other learning media, (d) Adaptive modules should have high adaptive power to the development of science and technology, (e) User Friendly; the module should be friendly with the wearer. Information that appears is helpful and friendly to the wearer, including the ease of the user in responding, accessing as desired. The use of language that is simple, easy to understand and uses general terms.

### b. Problem Based Learning

The problem based learning (PBL) learning model known as the problem-based learning model is a learning model that uses real problems encountered in the environment as a basis for gaining knowledge and concepts through critical thinking skills and solving problems. The application of the PBL model can help create learning conditions that originally only transfer information from lecturers to students to the learning process which emphasizes constructing knowledge based on understanding and experience gained both individually and in groups. The problems raised in PBL are real problems in the field.

PBL is a learning method that uses problems as a first step in collecting and integrating new knowledge. According to Hmelo-Silver & Barrows in Fakhriyah (2014) states that the problems raised in PBL learning do not have a single answer, meaning that students must be involved in exploration with several solution paths.

Problem Based Learning learning model shapes students' thinking abilities that are truly optimized and developed to be able to solve real problems. Based on Trianto's opinion (2010: 90) said that "Problem based learning model is a learning model that is based on the many problems that require authentic investigation, namely investigation that requires real solutions to real problems".

Problem Based Learning learning has a purpose in its application in the learning process. As for Suyanto and Jihad (2013:154) argues that: Problem-based learning is designed to (a) help students develop thinking skills and problem solving skills, (b) learn the role of adults authentic, and (c) becoming independent learners. The aim of using this model is to provide students with the basic

abilities to be able to solve the problems they face. With Problem Based Learning learning can direct students to be able to solve problems scientifically by using critical thinking patterns, reflective, rational and innovative. So that it can be applied in the process of solving problems related to everyday life.

#### c. Tax

Soemitro dalam Resmi (2013), said that: "Tax is a people's contribution to the state treasury based on the law (which can be forced) by not receiving reciprocal services (contra) that can be directly shown, and which are used to pay for public expenses". Meanwhile, based on Law Number 16 of 2009 concerning General Provisions and Procedures for Taxation in Article 1 point 1, it states that: "Tax is a compulsory contribution to the State owed by an individual or an entity that is compulsory under the law by not receiving compensation directly and used for the purposes of the State for the greatest prosperity of the people ". Based on the tax definition above, it can be concluded that the tax must have 4 (four) elements, namely contributions from the people to the state, based on the law, do not get lead or counter-direct services and are used to finance state households.

From the elements inherent in the definition of tax, there are two functions of tax collection, namely: 1. Budgetair function, where taxes are a source of state income. 2. Regular function, where tax as a source of income can also be used as a regulator in various aspects, such as social, economic, cultural and income distribution.

#### d. Learning achievement

Learning is a process of changing behavior as a result of interaction with the environment. According to Slameto (2013:2) "Learning is a business process carried out by someone to obtain a change in new behavior as a whole, as a result of his own experience in interaction with his environment" Sardirman (2011:19) says that "Learning is always a change in behavior or appearance, with a series of activities such as reading, observing, listening, imitating and so forth".

Sagala (2012:50) says that "The essence of learning seen from psychology is a change in maturity for students as a result of learning while viewed from the process is the interaction between students and educators as a learning process". It can be said that learning is a process of change in behavior experienced by students and the results of changes in behavior that can be said to be the result of learning. In accordance with the opinion of Purwanto (2011:24) who said "Learning is a change in behavior so that learning outcomes are the result

of behavioral changes. Learning outcomes are behavioral changes due to the educational process in accordance with educational goals ". Sudjana (2009:22) states "Learning outcomes are abilities possessed by students after he receives his learning experience". In addition, Suprijono (2010:5) says "Learning outcomes are patterns of actions, values, understandings, attitudes, appreciation and skills".

### 3 RESEARCH METHOD

#### a. Research Approach

Based on the purpose of the research is to produce a problem based learning based learning module that is valid, practical, and effective, this research approach is development research. According to Putra (2012: 70) research and development is a systematic study of scientific knowledge that is complete or understanding of the subject under study. The development model and development procedures are as follows: Development Model, this study uses a 4D model (four-D models). According to Thiagarajan in Trianto (2011: 184) the development of a four-D model consists of 4 main stages, namely: 1) define (determine the material), 2) design (design), 3) develop (development), and 4) disseminate (spread).

In this study only carried out until the develop stage, the disseminate stage was not carried out. Development Procedure, this module was developed using the four D (4-D) model, namely defining, designing, developing and disseminating stages.

The module design steps can be specified as follows: develop. This stage aims to produce a practical and effective problem based learning based learning module. The development phase includes:

1. Practicality. After the test phase the validity is revised and then tested to find out the practicality. Practicality is the practicality of the module when used in the learning process. This activity aims to determine the extent of ease of use, benefits and efficiency of learning time using problem based learning based modules. The practicality of the module is assessed by lecturers (colleagues). The lecturer gives an assessment of the problem-based learning module that is easy to use in the learning process and can help lecturers in the learning process. Practicality by students to see convenience for students in the learning process by using problem based learning based modules.

2. Effectiveness. The assessment of the effectiveness aspects of the taxation module based on problem based learning is the result of cognitive evaluation, namely the results of student learning tests and student activities during the learning process.

**b. Location and Research Subjects**

This research was conducted at the Faculty of Economics, Medan State University. The research subject of developing a problem based learning based learning module that is valid in taxation courses is the students studying Economics Education, Faculty of Economics, Medan State University. The criteria used as location selection and research class are the conditions of students who are in accordance with the needs of researchers where the class has never used problem based learning based learning modules.

**c. Technique and Data Collection Tool**

Tools or instruments are one of the tools for data collection. The means of collecting data in this development research is a questionnaire. Questionnaires are used to obtain practicality data and learning evaluation results to see effectiveness data. The research instruments developed for data collection in research are instruments of practicality and effectiveness.

The type of instrument that will be developed to assess the modules that have been compiled is to use practical sheets. Practical sheets contain aspects of assessment which include ease of use (learnability), effectiveness, effectiveness of time. This effectiveness instrument is used to collect data to see the effectiveness of the module in the learning process. Effectiveness instrument consisting of: Student Activity Observation Sheet

The observation sheet of student activities is used to obtain data about student learning activities during the learning process. Observations were made by 1 observer. Recording of observations is carried out in accordance with predetermined indicators.

The categories of student activities by observers are as follows:

- a) Read the module and do problem orientation
- b) Students ask questions while taking lessons
- c) Answering questions from lecturers and from other students
- d) Summarizing learning outcomes
- e) Answering exercises and understanding tests
- f) (modified from Trianto, 2012: 368-369)

**d. Learning outcomes**

Evaluation of student learning outcomes is done by means of a final test, to see students' understanding of problem based learning based modules.

**e. Data Analysis Technique**

**Practical Data Analysis**

To analyze the practicality of the module is based on questionnaires given to lecturers (colleagues) and students. Questionnaires are arranged on a Likert scale with a positive category. Positive statements get high weight with details as follows:

- a. a.very good (SB) with weight 5
- b. b.good (B) with weight 4
- c. c.enough (C) with weight 3
- d. d.less (K) with weight 2
- e. bad (J) with weight 1

By using a modified formula from (Lubis, 2009:87).

$$\text{Degree of achievement} = \frac{\sum X}{nx \sum item \times \text{highest scale}} \times 100$$

Modified

$$\text{Degree of achievement} = \frac{\sum \text{each item}}{\sum \text{highest score}} \times 100$$

The level of achievement of the module practicality category uses the classification in the table below.

Table 1: Module Practical Level Table

No	Performance Achievement (%)	Category
1	90-100	very practical
2	80-89	practical
3	65-79	quite practical
4	55-64	less practical
5	0-54	very less practical

The module is said to be practical if it has reached a level of practicality above 80%. (Lubis, 2009: 87)

**Effectiveness Test Data Analysis**

Effectiveness observed from the analysis of student learning outcomes is the cognitive learning outcomes. Determining student completeness (individuals) can be calculated using the following equation:

$$KB = \frac{T}{Tt} \times 100\%$$

- KB = Mastery Learning
- T = Number Of Score
- Tt = Total Score

$$P = \frac{F}{N} \times 100\%$$

Information:

P = Percentage of student activities

F = Frequency of active student

N = Total of student

Data on the percentage of student activities obtained grouped according to the following criteria:

81% - 100% = very active

61% - 80% = active

41% - 60% = quite active

21% - 40% = less active

0% - 20% = very less active

Modules are said to be effective if students meet the criteria of 41% -100%.

## 4 RESULTS AND DISCUSSIONS

### Use Module

The problem based learning module limited trial is conducted on Regular B class students in Economic Education Study Program, Faculty of Economics, Medan State University. The test serves to assess the practicality of the module by students as module users. The effectiveness of the module can be seen as activity or student activities during the learning process using modules. In addition, it is also an evaluation to see student learning outcomes.

### Module Practicality

Module practicality assessment is assessed by students as module users. The problem based learning module practicality is assessed by the Regular B class students of the Economic Education study program who are also the subject of module trials. After the assessment of the module based on problem-based learning practices by students, data analysis was then carried out. The results of data analysis can be seen in the table below.

Table 2: Practicality Results

No	Variable	Achievement rate (%)	Category
1	Learnability	80,53	practical
2	Efficiency	80,18	practical
3	effectiveness of time	82,63	practical
Average		81,11	practical

The results of practical assessment data analysis by Regular Class B students of Economic Education Study Program and also as the subject of problem-based module based testing consisting of three variables, namely 1) Learnability with derjad achieving 80.53% categorized as problem based learning based modules practical for users, 2) 80,18% efficacy with alphabet is practically used in the learning process, 3) effectiveness of time with alphabetical achievement of 82,63% categorized as practical problem-based learning modules can streamline the time in the learning process. The practical value of modules by students achieving 81.11% and modules can be categorized as practical.

### Module Effectiveness

Assessment of effectiveness serves to observe the effectiveness of the modules used in the learning process. To get the results of the effective module based on problem based learning, observations of student activities were carried out during the learning process and learning outcomes.

### Student Activities

The problem based learning taxation module based trial is conducted in four meetings where 2 observers observe each meeting. The names of observers in this study can be seen in the table below.

Table 3: Name Observer Student Activities

No	Name	Information
1	Revita Yuni, S.Pd, M.Pd	Dosen Pendidikan Ekonomi, Unimed
2	M. Aulia	Mahasiswa Pendidikan Ekonomi

The categories of student activities by observers are as follows:

1. Read the module and do the exercises
2. Students ask questions when following learning
3. Answering questions from lecturers and from other students
4. Summarizing learning outcomes
5. Complete the task

The first activity is to read the module and do the exercises. The percentage of student activities reading modules and doing exercises from the first meeting to the fourth meeting were 100%, 97.36%, 100%, 94.73%, and with an average of 98.09% in the very active category. Students who are absent or permits are categorized as not carrying out activities. From the results of observations, students are very active in reading modules and doing exercises.

The second activity is that students ask questions while following the learning process. The percentage of student activities from the first to the fourth meeting were 78.94%, 65.78%, 67.10%, 73.68% and with the average student activity 71.37% categorized as active students. From the data above students are asking questions at the second meeting and when stable and increasing in the next meeting. In addition, a variety of students also asked questions at each meeting. It can be stated that learning using modules can motivate students in the learning process.

The third activity is to answer questions from lecturers and from other students. The percentage of four meetings is 68%, 68.42%, 71.05%, 78.94% and with an average student activity of 71.60% it can be categorized as an active student. From the above data it can be stated that students respond to questions from lecturers and other students always increasing at each meeting.

The fourth activity is to conclude the learning outcomes. The percentage of four meetings is 63.15%, 59.21%, 69.73%, 78.94%, and with an average student activity of 67.75% can be categorized as active students.

The fifth activity is to complete the task. The percentage of four meetings is 100%, 94.73%, 94.73%, 94.73%, and with the average student activity 96.04% can be categorized as very active students. Because the completion of assignments for students at the end of each lesson is the responsibility of each individual.

The average student activity of each category from four meetings in general can be seen in the table below.

Table 4. of Results of Achievement of Student Activities

No	Category Of Activities	%	Criteria
1	Read the module and do the exercises	98,09	Very active
2	Students ask questions when following learning	71,37	Active
3	Answering questions from lecturers and from other students	71,60	Active
4	Summarizing learning outcomes	67,75	Active
5	Complete the task	96,04	Very active
Average		80,97	Active

The results of the observation analysis, 5 categories of student activities during the learning process with the achievement of 80.97% were categorized as active students. Students who are declared graduated are as much as 70% of existing learning outcomes.

### Learning Outcomes

Learning outcomes are based on the results of data analysis, graduating students totaling 33 people and students who were declared not to pass 5 people. The percentage of students who graduated was 86.84% and 13.16% of students were declared not graduated. From the results of the evaluation above, based on the established theory the learning process is effective because it is more than 85%.

## 5 CONCLUSIONS

The description of the data and the discussion above can be summarized as follows:

1. A problem based learning module has been produced in taxation courses that are quite valid, practical and effective.
2. The practicality of modules by students is 81.11% and modules can be categorized as practical in the learning process. The value of student activities from the five categories observed in the learning process, 80.97% can categorize active students and modules are categorized as effective.

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