

# The Validation of the Development Practicum Module Product Based on an Introduction to Problem-Based Learning in Accounting

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**Abstract.** Many factors affect student learning outcomes, one of which is relevant supporting teaching materials, especially in the field of accounting, which requires not only an understanding of theory but also much practice. For this reason, it is necessary to develop learning tools that contain material and support student practicum. This study aims to determine the feasibility of the problem-based introductory accounting practicum module. This study uses research and development (R&D) methods using the Borg and Gall model with ten stages. However, in this case, it is only presented up to stage 4 (four), namely product validation. The practicum module products that have been produced are then tested for feasibility by 3 (three) experts' validators who are experts in the field of Accounting Education. The results of the product feasibility test concluded that the problem-based introductory accounting practicum module was in very feasible category with a percentage level of 87.1 percent's from these validators. This research shows that the practicum module produced is proven to be suitable for use in learning, but it is still necessary to carry out a series of further research stages.

**Keywords:** Accounting, Module, Feasibility Test.

## 1 Introduction

The world is currently experiencing a never-ending COVID-19 pandemic. Therefore, the government continues to be anticipatory in implementing a work From Home (WFH) policy. In addition, the Indonesian Minister of Education also issued a policy by closing physical schools and replacing the teaching and learning process in into online learning system. As a result, many universities have implemented full online lectures for at least four semesters.

From logical reasons nerves, lecturers as lecturers facilitators have to be more creative in problem based learning or case study and innovative in finding better learning solutions that are more comfortable to implement both terms of all students and accounting lecturers in an accounting education study program, face-to-face learning, online learning, or blended learning.

However, this also happens in every course, especially in the introductory accounting course. Learning accounting not only requires an understanding of the theory but also requires much practice.

One of the breakthroughs made to bridge this need is to develop an introductory accounting practicum module through a define series of research and developments of teaching materials (R&D) to produce practical and effective modules used in student learning. The practicum module for introductory accounting courses has been prepared before but has not passed a series of research and development (R&D) correctly and has not referred to the direction of the University to support case-based learning. In addition, the development of this practicum module is also expected to align with the University's concept of the KKNi task.

Developing a problem-based introductory accounting practicum module is one of the efforts to improve student's practical skills. This statement is in line with Zainuddin's opinion in [1] that: "for lecturers in charge of practicum in general, an important task that must and needs to be done is to design and manage these activity so that the instructional objectives are clear and concedes, the content and sequence of activities are well directed, relevant to the demands of the practice. Graduates' professional assignments in the future and are designed in such a way or platform that it is an interesting and enjoyable learning experience for students, not just the opposite and be boring and wasted."

This effort is made, one of which is to increase student learning independence by having an easily accessible practicum module. [2] Suggests that the practicum accounting module is the smallest unit or amount of the teaching and learning program, which is studied by students individually or taught by them (self-instructional learning). The presence of this practicum module is expected to increase student learning independence. [3] Said, "Learning independence is an active learning activity process driven by the intention or motive to gain competency to overcome recent problems, built with the knowledge or competence possessed, both in determining the time of the study, the place to study, the learning rhythm, and the learning tempo. Learning methods and evaluations carried out by the learners (accounting education students first semester), in case them.

Based on this background, developing a problem-based introductory accounting practicum module is specific to improve accounting students learning outcomes and skills. Therefore, the main and fundamental objective to be caught and achieved in this research is the production of a problem-based practicum module that relevant to the IQF task concepts. The developed practicum module is designed so that students can connect and reach the knowledge gained with real-life cases to provide accurate solutions and communicate among them appropriately, as well as train students' learning skills and independence, wherever and whenever, according to their respective learning styles.

## **2 Theoretical Reviews**

### **2.1 Teaching's Module**

A define accounting practicum module is a form of teaching material packaged entirely and systematically define. It contains a set of learning experiences that are planned and designed so that students master specific learning objectives in accounting practicum. [4].

The module of this study, as one of the teaching materials, has one of the characteristics is the principle of independent learning both of online and offline learning process. According to [5], independent learning is a way of active learning and participation to develop each individual's self that is not tied to the presence of teachers, lecturers, face-to-face meetings in class, or the presence of school friends environment. The advantages of learning with modules are (a) this module can provide some feedback so that students know their shortcomings and immediately make improvements in practicum of accounting, (b) the module sets clear learning objectives so that student learning performance is directed toward achieving learning objectives in practicum of accounting, and (c) modules designed attractive, easy to learn, and able answering the needs, of course, will lead to student motivation to learn forward, (d) the module is flexible because the module material can be studied by students in different ways and speeds of learning process, (e) cooperation can be established because the competition module can be minimized gaps between students or learners itself, and (f) remedial can be held because the module provides sufficient opportunities for students to be able to find their weaknesses in practicum of accounting based on learning skills' evaluation .

### **2.2 Learning outcomes of Introduction to Accounting**

Through this learning process situation and condition, it is expected deeply that the result is increased accounting students' success. [6] State that learning outcomes result from an interaction between teaching and learning. From the lecturer's point of view (POV), the act of teaching ends with the process of evaluating learning outcomes, while from the student's sides, learning outcomes are the end of teaching from the peak of the learning process in this research. Student learning outcomes are influenced by several learning conditions, namely internal and external happens conditions. Internal factors exist within the organism, which is called individual factors. These factors are maturity or growth, intelligence process, training system and repetition learning process, students' motivation, and personality traits. Some External factors outside these individual factors include students' family background factors, lecturers basic and skillful knowledge, school facilities and all its supporting infrastructure, and the last is the environment quality [7]. And lastly, an External factor, in this case, is the way lecturers to develop teaching accounting practicum materials that will be studied in this research, and also affect learning outcomes in practicum of accounting.

After that, the learning output and outcomes which referred to this study are students' learning outcomes in introductory problem-based accounting subjects. Developing practicum module learning tools that align with the lesson plan is one of the initial planning activities in improving the quality and students' learning outcomes. The design of learning devices can be used as a starting point for joint efforts to improve the quality of learning in practicum of accounting. It

means that improving the quality of learning must begin with improving learning tools and equipment's, including quality practicum modules that support learning plans.

### 3 Method

Of Course, this study uses some related prior research scopes and development methodology. The purposes of development research in this study by using the development design of [8] is to develop and to validate research output or products itself. Then, the next steps in this research and development were carried out in as many as ten steps with the following stages: 1) potential and problems in practicum of accounting, 2) data collection from students', 3) product design of module, 4) design validation from experts, 5) design revision of modules, 6) product testing of modules to accounting students, 7 ) first product's revision, 8) use trial, 9) second product revision and 10) mass output or production of modules to all first semester accounting students [9].

And The subjects of this research were first-semester students from accounting education in the Introduction to accounting subject at the Accounting Education Study Program, Faculty of Economics, Universitas Negeri Medan of experts by using the Likert scale methods, testing the practicality steps, and testing the teaching modules' efficiency and effectiveness. Specifically, this article only examines step 4 (four) regarding the feasibility of the practicum accounting module.

The feasibility test [10] said; Explaining that the measurement and assessed data obtained from experts' 3 (three) validators were analyzed descriptively and qualitatively regarding to this module. These can be used as a reference for revising to produce a decent product. The product design developed measured and assessed by the validators using a good standard validation sheets. The measurement and assessment results of all aspects are measured using a Likert scale. A Likert scale is several positive or negative statements about an attitude objects. Definitely, the main principles of the Likert scale is to determine the location of a person's position on a continuum of attitudes towards an attitude object ranging from basically negative to the most positive.

In this research, the answers which is the instrument items were classified into 5 (five) choices. Each indicator that is measured and assessed is given a score on a scale of 1-5, namely:

**Table 1.** Feasibility Scale Indicators.

Scales	Descriptions
5	very good / very suitable / very decent / very clear
4	good/ appropriate/ appropriate/ clear
3	is not good / not suitable / not suitable / not clear
2	is not good/ not appropriate/ inappropriate/ unclear
1	very not good/ very inappropriate/ very inappropriate/ very unclear

The next steps are to assess the feasibility of implementing a teaching media in inferential statistics learning media. After the data was obtained, then it needed to see the weighted scores of each validator's response by calculating the average score with these following formula [11]:

$$\text{Means Total Scores} = \frac{\text{Total Score}}{\text{Amount of Assesors}} \quad (1)$$

After that, the formula for the absolute percentage of results can be calculated or counted by the following formula.

$$\text{Results} = \frac{\text{Means Total Scores}}{\text{Maximum Scores}} \times 100\% \quad (2)$$

Then, the Eligibility categories for teaching materials or modules are based on as follows criteria:

**Table 2.** Eligibility Criterias' for Teaching Practicum Materials or Modules.

No	Scores in %	Eligible Category
1	< 21 %	Very Inappropriate
2	21 – 40 %	Not feasible
3	41 – 60 %	Decent enough
4	61 – 80 %	Worthy
5	81 – 100 %	Very Worthy

Sources: [12]

## 4 Results and Discussion

The development of the practicum module has been a series of good research and development of the development practicum in accounting which refers to [8] in [9] with the following steps:

**a. Potential problems**, definitely called as discussing the availability sides and definitely of potential studies learning process and problems in developing the Problem-Based Introduction to Accounting practicum module.

At this occasion, it discussed the background of developing practicum modules that students commonly use. The results of the evaluation of the positive or negative potential and problems related to the preparation of the practicum module products are:

- 1) Accounting is not just a theory but also requires much practice. An introductory accounting practicum module has been prepared previously but has not done through a series of relevant previous research and product developments.
- 2) Changes in the reference standard for the case method-based RPS that is being massively used at the University require adjustment of learning strategies to learning tools, including the adjustment of the problem-based introductory accounting practicum module with the RPS.

- 3) To facilitate and uniform the information on KKNi assignments that are applied at Universitas Negeri Medan, this practicum module will later support the concepts of a portfolio of 6 (Six) Kerangka Kualifikasi Nasional Indonesia (KKNi) assignments.

**b. Data collection**, called as the availability sides and definitely of some informations that can be used for planning for a good preparation materials of the problem-based introductory accounting practicum module product in this study, are:

- 1) Case method-based RPS standardization document
- 2) Material instructional documents in the Introduction to Accounting course
- 3) Reference documents for the assessment of 6 KKNi tasks
- 4) Document the assessment instrument for Introduction to Accounting learning outcomes.

**c. Product design** First Draft; (draft 1), namely the availability of a practicum accounting module draft.

A practicum module was developed at the design stages referred on competencies standards, fundamental competencies, and also indicators of competencies achievement in the Introduction to Problem-Based Accounting subject. The material designed in the module is adjusted to the competency standards of the subject. The material for the practicum module is organized into seven chapters, namely:

CHAPTER 1 Basic Concepts of Accounting

CHAPTER 2 Basic Structure of Accounting

CHAPTER 3 Accounting Recording Stage

CHAPTER 4 Trading Company

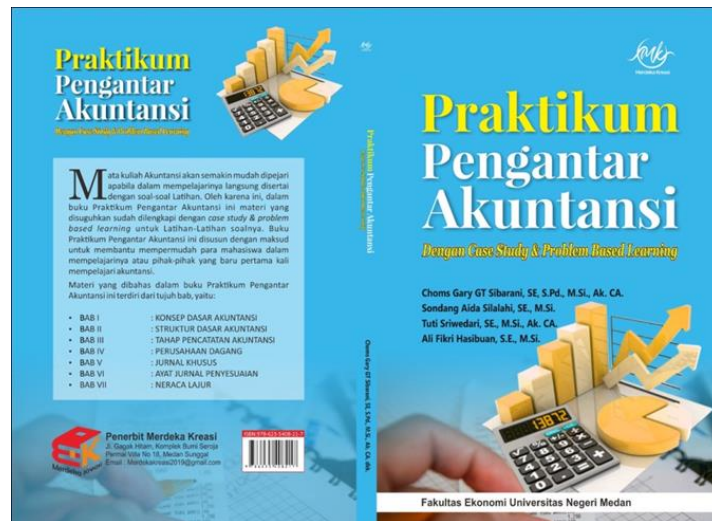
CHAPTER 5 Special Journal

CHAPTER 6 Adjusting Entries

CHAPTER 7 Balance Sheet

At the product design stage, it produces practical module material per the problem-based semester learning design. Each chapter of this module contains case studies of problems related to introductory accounting materials that tend to occur around student life. Later these problems are accommodated as problems that students must resolve. All materials, case studies of each material, and assessment instruments on these materials are presented in one problem-based introductory accounting practicum module.

The draft cover of the problem-based introductory accounting practicum module is as follows:



**Fig. 1.** Cover of an Introduction to Problem-Based Accounting Module

The problem-based introductory accounting practicum module has been designed according to the document analysis in the previous stage. Furthermore, it will be continued at the development stage to evaluate the feasibility test of the practicum module.

**d. Design Validation,** given as the availability sides of validation test results from all the regarding documents.

The textbook was built and compiled at the product (output) design stage is the first draft 1(one), then tested through several scientific stages. The first stage is the textbook validity test using expert validity assessment. This validation has carried out consists of two stages, for the 1(first), validation of the sheet questionnaire that will be used by the expert team in assessing the module, and next is 2 (two); validation of the book through a questionnaire given to the expert teams or lecturers with Doctors Strata. The questionnaire was validated by three validators which were deeply experts in the field of Accounting Education.

The majority experts who considers the validity of the contents of the problem-based accounting practicum module are (1) Dr. Chandra Situmeang, SE., MSM., M.Pd., Ak., CA., CPA. (Lecturer of Accounting Department); (2) Andri Zainal, SE., M.Sc., Ph.D. (Head of Accounting Education Study Program) and (3) Taufik Hidayat, SE., M.Sc. (Head of Accounting Study Program). These following are the results of the questionnaire validation steps and proceed by 3 (three) validators lecturers or experts in accounting as follows:

**Table 3.** Feasibility Scale Indicators.

No	Name	Revisions
1	Chandra Situmeang	The material presented follows the RPS case method. Case studies that are appointed depart from phenomena around student life.
2	Andri Zainal	Each chapter presented is equipped with a case study The layout of the module is made as neat as possible
3	Taufik Hidayat	Each question presented in the practicum module is equipped with an answer. Correct typos and use terms that are easier for students to be understanding .

Several aspects had observed concisely in the learning application which is can be seen in Table 4(four). And from the results of the consideration answers of the three experts on the 16 (sixteen) aspects which observed, the overall assessment is as follows:

**Table 4.** Aspects of Content Validity of Problem-Based Practicum Modules.

No.	Observed Aspects	Validators		
		1	2	3
1	The practicum module material is by the syllabus curriculum.	4	5	4
2	The practicum module material is under the expected essential competencies.	4	3	4
3	The practicum module material is relevant to the materials that students must learn deeply.	5	4	4
4	The contents mainly of the practicum module material has right and appropriate concepts.	5	3	4
5	Practical module material helps explain concepts.	4	5	4
6	The material for the practicum module contains a case study.	5	5	4
7	The material for the practicum module contains KKN assignment questions.	5	5	5
8	The suitability of the case study according to the material being studied.	4	4	4
9	Suitability of case studies and practice questions with abilities that will be improved.	5	4	5
10	The existing practice was observed questions have met the proportion of difficulty level of tests (PBL and case study).	5	4	4
11	The language used is excellent and correct in spelling.	5	4	4
12	The language ability used is easy to understand and definitely did.	5	5	5
13	Attractive appearance and arrangement of practical modules.	4	5	5
14	Attractive arrangements of pictures and tables from this module.	3	4	5
15	The font size used is clear and easy to read.	4	4	4
16	Students can use and do the practicum module independently.	4	4	5
<b>Total Validator's Scoring</b>		<b>71</b>	<b>68</b>	<b>70</b>



From the value or scoring datas' from all the validators, further analysis has carried out using the analysis of the average total score, namely as follows:

$$\text{Means Total Scores} = \frac{209}{3} = 69,67 \quad (3)$$

Then the results from this formula for the percentage amount of results can be calculated by the following formula, as follows:

$$\text{Results} = \frac{69,67}{80} \times 100\% = 87,08\% \quad (4)$$

The results of the percentage values of the validators' is 87.08%, has the meaning or impact that if it refers to Table 2 (two) of the module eligibility criterias, the feasibility categories of the 3 (three) validators' assessment results is in the most feasible category because the score is between the range; 81-100% interval scores.

The development of this problem-based introductory accounting practicum module has met the feasibility level, meaning that the compiled practicum module is suitable for learning introductory accounting courses. The development of an introductory accounting practicum module has been carried out by previous researchers, including [13],[14], [15], [16]. The study's results revealed that the practicum module developed met the feasibility level for use in learning and effectively improved student learning outcomes.

The development of teaching materials or modules by the standard case method-based semester learning design is the answer to the attitude of professionalism as a teaching staff. The modules presented contain relevant materials and problems encountered in student life. It is hoped that after passing the product feasibility test, this problem-based introductory accounting practicum module can effectively improve student learning outcomes.

## 5 Conclusions

Preparation of the problem-based introductory accounting practicum module using the best and wellknown research scopes and development methodology. The purpose of development research were using the development design of [8] is to develop and validate reliable research products. From a series of RnD that has been carried out, it produces a problem-based introductory accounting practicum module product that is suitable for use in learning. However, the entire series in preparation for this practicum module has not been completed; it still needs a series of small sample trials, large-scale trials, and final revisions. In the next stage, the effectiveness and practicality of this practicum module will be measured. This research will be done for first-semester accounting education students in the odd period of the 2022/2023 academic years.

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