# Development Of Learning Materials Practicum Accounting Information System Based On Computer Software

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Abstract. The purpose of this study is to produce modules as teaching materials in the Accounting Information Systems Practicum course based on computer software namely MS Visio that meets (1) eligibility standards in terms of content, language and presentation, (2) practical use in learning, and (3) effective used in learning. The development procedure in this study consists of four stages, namely: The needs analysis phase, the product design stage, the validation and evaluation stage, and the final product stage. Research on the development of this teaching material was conducted on accounting students who were in semester 5 who took the Accounting Information Systems and Accounting Information Systems Practicum courses. The validation test is carried out by material experts with a score of 3.6 which means that the material presented in the module is feasible to use. The validation test by the learning design expert for the module was 3.66. This score also shows that the aspects of presentation, language and appearance are appropriate to be used as teaching materials for accounting students. Furthermore, a field test is given to students, the first is an one-on-one test that is given to three students whose score is 3.8. The test results in small groups are 3.76, while the results of tests for large groups are 3.84. These results indicate that learning by using computer software-based modules is appropriately appreciated by students. Furthermore, further research is expected to develop the field of science in the Accounting Information System KDBK. Then the final product of this research is expected to be useful to produce learning innovations that can be utilized in the form of teaching modules for accounting information systems practicum.

Keywords: Accounting Information Systems Practicum, Teaching Materials, Computer Technology.

# **1** Introduction

The focus of the problem in this research is the need for the development of Accounting Information Systems Practicum teaching materials based on Accounting Software as an alternative learning solution in drawing Flow Chart. In the Higher Education curriculum for the Accounting Study Program, the field of financial information systems is a competency that students must master well. The development of global financial reporting has implications for the need to educate students about global financial reporting. The development of science, technology and globalization flows has brought changes in all aspects of human life. Especially in the field of technology which has rapidly brought changes in the business world of a company Learning is a systematic process where each component influences the success of students in the learning process. This means students need to interact with learning resources in achieving learning objectives in order to improve the quality of learning. Efforts that can be made so that learning can take place more effectively, efficiently, have an attraction and are able to motivate students to learn independently one of them by using computer technology which is certainly familiar to students. The attractiveness of learning is usually measured by the tendency of students to continue learning and interest in the subject. Accounting information system courses are very closely related to technological development. This learning will be very interesting if done with appropriate computer technology and software, one of them by using MS Visio. Because the most difficult and tedious work for students is to draw a company's information system flow chart with a manual. Will take a long time and is prone to errors. With the development of technology, this work can be facilitated by the existence of MS Visio Software.

The current problem is that there must be development of material that is in accordance with the material in the classroom with the practice in the laboratory. So, the purpose of this research is to develop practical learning materials in accounting information systems with MS programs. Visio which produced the Accounting Information system practicum module. So far, learning in practicum classes does not use books or modules. Only assignment of tasks to resolve cases related to the material. Then the researchers felt the need to develop teaching materials in the Accounting Information Systems Practicum by making a learning module related to the material given in class. The development of teaching materials is also accompanied by the introduction of the MS Visio prog

MS. Visio is a software developed by Microsoft company with the function as a helper in creating diagram designs, flowcharts, brainstorms and network schemes in the form of vector graphics based on data inputted. This product offers more features and templates in making further diagrams so as to make the work more optimally. In addition, it will make it easier for users to connect diagrams with data sources and information visually in graphical form.

In its implementation, this software is included in the device that is user friendly or easy to use. In it there are many shapes or features that facilitate students in designing a diagram. With the existence of Microsoft Visio it is very helpful for the IT and professional business people in exploring and delivering information visually, easily and precisely. One of the other facilities offered by Microsoft Visio is being able to simplify various complicated data in the database and translate it into the form of Visio Diagrams that are easy to understand.

Advantages of Microsoft Visio

- 1. As for some of the advantages offered by Microsoft Visio, including the following: Microsoft Visio has been supported by various tools that are very numerous and easily understood, even by a beginner.
- 2. How to use Microsoft Visio is quite easy and very familiar with Microsoft Word or Excel.
- 3. Microsoft Visio provides a large selection of attractive images so as to produce dynamic and non-monotonous files.
- 4. Microsoft Visio has been supported by 3D images that are quite interesting so that the results are more varied.
- 5. The existence of an Add-ins facility that functions as an additional feature from a third party.

One of the general objectives of the accounting system according to Mulyadi [1], namely: To provide information for managers of new business activities and to improve information generated by the existing system. Understanding of an accounting information system according to Mulyadi [1] which states that the accounting information system is: "The organization, forms, notes and reports are coordinated in such a way as to provide financial information needed by management to facilitate company management."

From this understanding it can be interpreted that the accounting information system is a collection of accounting system parts that work together and are responsible for providing financial information and information obtained from transaction data that aims to produce information and reports to management that can be used in internal control company.



Fig 1. Example of Flow Chart of Credit Sale [1]

The objective to be achieved from this research activity is the preparation of accounting practicum teaching materials using the MS program. Visio and who are able to improve the quality of learning, namely increasing understanding and professional skills utilizing computer technology for students.

In developing teaching materials, an understanding of the importance of teaching materials is needed in the learning process. In the learning process, teaching materials are located as initial capital that will be used or processed to achieve results. These results are in the form of student understanding and ability. Because of the importance of teaching materials in learning activities, they must always be adjusted to the needs of the work environment. Teaching material is a component that must be present in the learning process.

According to Prastowo [2] teaching materials are all forms of materials used to assist teachers / instructors in carrying out teaching and learning activities. The intended materials can be written or unwritten materials. According to Dick, Carey & Carey in [3] teaching materials are devices that are used for learning consisting of, (1) student guides, (2) teaching materials, (3) learner guides.

According to the Ministry of National Education [4] instructional materials are a set of knowledge, skills and attitudes that students must learn in accordance with basic competencies

in order to achieve predetermined competency standards. Teaching materials are books that contain a description of a particular field of study, arranged in systematic, selected based on objectives, oriented towards learning and adapted to the development of learners [5]. So teaching materials must always be updated in accordance with the objectives and achievements in learning.

## 2 Research Method

The development phase of Dick & Carey in [3] was adapted into this development research into 4 stages that were adjusted to the module development steps, namely: the needs analysis phase, the product design stage, the validation and evaluation stage and the final product stage. At the validation stage, the material experts, learning design experts, one-on-one trials, small-group trials and large-group trials are conducted with students.

Instrument Analysis Technique The feasibility of learning modules uses a Likert scale with alternative answers: very good, good, sufficient, less and very less. In order to obtain quantitative data, alternative answers are given a score that is very good = 5, good = 4, enough = 3, less = 2, very less = 1.

## **3** Results and Discussion

#### 3.1 Results of Module Development

Based on the research and development stages of the Accounting Information Systems Practicum module, the development and research design only reaches the Revised Instruction stage to revise the validity, feasibility and effectiveness test stages of a product development from the initial stage. Product trials in the development of teaching materials are conducted to obtain input, responses, and assessments of the product as revised materials to get improvements. In designing teaching materials for the Accounting Information Systems Practicum module, the development phase of Dick & Carey was adapted into this development research into several stages, namely:

#### **Requirement Analysis Phase**

This stage aims to review the objectives of the product to be developed. The product to be developed is the Accounting Information Systems Practicum module. So the first step to do is to conduct FGD with KDBK team lecturers to conduct curriculum analysis in determining products that are in accordance with curriculum requirements based on the initial survey conducted on the needs of students in facilitating them in designing and drawing a flow chart of the Accounting System. Conduct a needs analysis by analyzing the curriculum to determine products that are in line with curriculum demands. Curriculum analysis is done by looking at, studying and considering several curriculums at leading universities in Indonesia. After seeing the material from several Syllabus in Accounting Study Program at State Universities, almost all Accounting Information Systems Practicum Courses use MS Visio.

#### **Product Design Stage**

The results of the needs analysis will further determine the design of the product to be

developed. This stage is conducted by the FGD with KDBK team lecturers whose activities include determining the components of the Accounting Information Systems Practicum module using MS Visio, the concept of delivering and organizing material, the type of assignments given, evaluation questions, drawings, and module layouts. This stage will produce an initial product design in the form of a module that has previously been carried out preparation of product assessment instruments to be used as guidelines in product design. At this stage the material collection was also carried out by the KDBK doden-lecturer team by collecting material in accordance with the initial design of the Accounting Information Systems Practicum module with MS Visio.

#### Validation and Evaluation Stage

This stage is the core stage in the form of a series of product development assessments. The next set of validation and evaluation stages is the readability test phase. Products that have been declared feasible by experts / experts are then tested on Accounting 5th semester students as potential users. Then students assess and provide input on the module.

## Validation Test by Material Experts and Learning Design

Individual trials, conducted on a material expert who at least has a minimum education qualification of S3 in the field of Accounting Information Systems. Based on the validation test by the material expert on the feasibility of teaching materials or the Accounting Information Systems Practicum module, a score of 3.6 is obtained. Based on the assessment, the development of teaching materials is still in good criteria. According to the material expert's assessment of the Accounting Information Systems Practicum module: "it's good but there still has to be a lot of practice and case questions in it. Material experts consider that the practicum module with MS Visio is very useful to increase student knowledge related to technology that can be used to help the teaching and learning process.

Furthermore, the validation test is conducted by a learning design expert, based on an assessment of the feasibility of the validation value module obtained is 3.66. This result also shows that the module is appropriate to be used as teaching material in the SIA Practicum class. Advice from design experts is that the material presented should be more systematic as well as the tasks presented in the module.

#### **Field Test**

The design of trials used in this study are: one-on-one trials or individuals, small group trials, and large group trials. Individual trials were also carried out on three students representing the target population. Small Group Trial, At this stage teaching material needs to be tried out to 10 students who can represent the target population. The sample consisted of students who were less clever, moderate and smart, male and female, with different characteristics. On the basis of feedback small groups of media are refined.

Based on the data table scores above, the value of 3.8 for one-on-one trials and 3.76 for small-group trials is obtained. The results of this trial illustrate that the material presented in the learning material is quite good and in accordance with the learning objectives, although there are some that state the learning material is not in accordance with the learning objectives. Respodents who state learning material are easy to understand as much and the examples presented can clarify the topic.

The terms used in the learning material both the description and the exercises are easy to understand. But some students said they could not be understood. The images used can help students to understand the MS Visio material. Likewise the language still needs improvement so that it is better understood by students.

## 4 Conclusion

Based on the results of the validation test by the expert material and the results of one-onone trials and in small groups and large groups, an illustration is obtained that the material described in the Accounting Information System Paractic module is in accordance with the learning objectives. The suitability includes the following:

- 1) The material is in accordance with the competencies that must be mastered by students,
- 2) Assignments given to students in accordance with the competencies that must be mastered by students.
- 3) Explanatory examples are in accordance with the competencies that must be mastered by students,
- 4) Exercises and questions in accordance with the competencies that must be mastered by students.

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