

# INTEGRATED MODULE LEARNING IN ACCOUNTING: EVIDENCE OF INDONESIA

Agung Listiadi  
Surabaya State University Indonesia  
agung296@gmail.com

## ABSTRACT

Learning outcomes of each learner will be different, because every student has certain limitations that are different from other learners in terms of capability and mastering the material, even if the object / the same assessment criteria. For the learning modules that match the characteristic of learners very supportive in improving learning outcomes. The module is basically a self-instruction. Therefore, the module emphasizes learning through active role of learners to learn your self. The aim of research to determine differences in learning outcomes before and after application of the accounting module spreadsheet-based trading company and an integrated spreadsheet. To determine the difference in experimental design used models one group pretest-posttest, with respondent's students majoring in accounting education. The results showed there are differences in learning outcomes convincing before and after using the accounting module spreadsheet-based trading company and an integrated spreadsheet. The use of modules in learning more feasible in bringing about innovation and creativity in students this case because it focuses on the individual skills of learners. Learning to use the modules making learners can measure their own abilities and be able to improve their own abilities without feeling pressured.

## INTRODUCTION

Education has a very important role in life. Through education, acquired knowledge that is important for human life. Knowledge would be useful if well understood and can be applied. Knowledge is not a set of facts, concepts or rules that are ready to take and remember, but it must be found itself in order to become more meaningful so that learners will be easy to understand and remember. Education is a vehicle to improve and develop the quality of human resources and important to the advancement of the nation. Psacharopoulos (2004) suggests education is an investment in the future. Development in the field of education are being implemented with the hope of improving the quality of education and can solve various problems faced by the world of education, according to Misra (2012), especially in the era of globalization is full of a wide variety of educational challenges must be modernized. Curriculum renewal that continues to do so at this time the Indonesian government is one of the government's efforts in the development of education in order to achieve a quality community in the mastery of science and technology.

According to Handler (2010) the successful implementation of this curriculum is strongly influenced by the ability of educators in implementing the curriculum. Educators are considered to know and understand the state of the school so that the way of achievement of competencies is the authority of educators for creativity through learning device, learning strategies, teaching methods and evaluation. Skills and competences of the educator are very helpful in achieving successful learning. For that an educator is required to be able to determine and select a suitable learning strategies and varied. According to Robertson (2008) every educator has the ability, the ability of the affected individuals, or Congenital and environmental factors. Therefore, the ability of educators needed in his job as a teacher to deliver learners implementing the learning process actively. The learning activities are essentially a two-way communication activities is communication between learners and educators with communication between learners. So, we need good communication between educators with learners, learners with learners, and students with learning resources. The learners have different abilities in capturing information, students who have the ability to learn quickly will more easily absorb the material provided but slow learners who study would require a longer time to understand the material provided.

## TEACHING MATERIALS

According to Hopkins (2000) Learning is a process of change in behavior of the individual self, thanks to the interaction between the individual and the individual with the environment. While understanding the learning according Rowe (2013) Learning is a process attempts person to obtain a new change in behavior as a whole, as a result of his own experience in interaction with the environment. From the above it can be concluded that the notion of learning is a process of change within the individual behavior that looks at changes in attitudes, understanding, skills and knowledge of individuals in the learning process. According to DeWitt (2014) Teaching is conveying

knowledge, passes on culture and provides tutoring to students so that they can assist learners in the face of people's everyday lives.

The materials in question may be written or unwritten material. Teaching materials or curriculum (curriculum material) is the content or the curriculums that must be understood by learners in an attempt achieve the objectives of the curriculum. Material of teaching or learning materials (instructional materials) generally consists of knowledge, skills, and attitudes learned that should learners in where with order to achieve the standards of competence specified. Teaching materials are usually equipped with a variety of illustrations. Illustrations plays an important role in teaching materials, as they may clarify concepts, messages, ideas, or ideas presented in teaching materials. In addition Illustration interesting plus proper layout can create interesting teaching materials to be studied. In detail, the types of learning materials Consist of knowledge (facts, concepts, principles, procedures), skills, and attitudes or values that must be learned learners in order to achieve competency standards have been determined. Materials or curriculum materials can be sourced from various disciplines both clump of social sciences (social science) and natural sciences (natural science). Furthermore to note is how the scope and breadth of materials depth or contents in any field of study. The main components of teaching materials are: a) review of the material, b) introduction to each chapter, c) the closing of each chapter, d) bibliography, and e) lists. Each component has sub-sub-components that are integrated with one another.

### **MODULES**

The module is a process of learning about a given subject unit is arranged systematize, operational, and targeted for use by learners accompanied with the user guidelines for educators (Norlidah, 2012). According to Robinson (1972), the module is one form of teaching materials that are packed full and systematic, are contained within a set of learning experiences are planned and designed to help learners master the specific learning objectives. The module serves as a means of learning which is independent, so that students can learn independently according to their own pace. Based on some understanding of the module above it can be concluded that the learning module is one form of teaching materials that are packed in a systematic and attractive so it is easy to learn independently.

Learning module is one of the learning materials that can be used by students independently. Modules are either to be arranged in a systematic, interesting, and clear. Modules can be used anytime and anywhere according to the needs of learners. Learners can study individually; he studied with active without the aid of a maximum of educators. Specifically formulated learning goals. Formulation of interest rooted in a change in behavior. Interest specially formulated so that the change in behavior that occurs in self-learners can immediately know. Changes in behavior are expected to complete 75% mastery (mastery learning), opening the opportunity for learners to advance sustainable according to their ability. The module is a teaching package that is self-instruction, with a study like this; the module opens the opportunity for learners to develop themselves optimally.

Power modules have enough information. Element association, structure, and sequence of lessons formed such that learners spontaneously learn. The module provides many opportunities for learners to do active. Structuring module aims to help the participants learn to learn the material. One module is set up to teach a specific material so that participants learn to achieve certain competence. The structure of writing a module is often divided into three parts: the opening section, the core and the cover portion.

### **LEARNING OUTCOMES**

After teaching and learning activities are expected to change their behavior so that it can be seen through the evaluation of learning outcomes of students. The result of learning is the result obtained learners of the learning process which appears in the form of overall behavior (comprehensive), which consists of elements, effective and psychomotor are integrated on self-learners (Khalid, 2012). Learning outcomes are the result of an evaluation of learning activities to learners after learning activities in an effort to achieve the learning objectives have been applied (DeWitt, 2014). From the above it can be concluded that the study result is an assessment of the progress and success of students after an effort and activity in acquiring knowledge. In principle, the ideal learning outcomes covering the entire psychological domain that changed as a result of travel and learning process of students, described (Stoyanova et al, 2002). From the opinions on the notion of learning outcomes is basically a change or ability possessed by students after receiving the information submitted by educators in the process of learning - teaching.

Psychological domain as a result of learning are: the domain of copyright (cognitive) includes observation, memory, petition, application, analysis, and synthesis. The domain of taste (affective) includes reception, welcome,

appreciation, internalization, characterization; the domain of intention (psychomotor) includes moving and acting skills, verbal expression of non-verbal skills. (Rowe, 2013). Assessment of learning outcomes is a process of giving value to the learning outcomes achieved learners with certain criteria (Hopkins, 2000). Assessment of learning outcomes in essentially completeness adjusted to standard set by the school. That is said to be successful learners in the learning of certain subjects if they meet specified completeness. Instructional media plays an important role in the achievement of learning outcomes by optimal.

**METHODOLOGY**

To test the hypothesis, then used the design of experiments, the experiment is one of many research methods applied to all areas of science. The main characteristic of an experimental study that their treatment (treatment) conducted research on the subject of research. Treatment to function as an independent variable, treatment is done is to give students trading company based accounting modules and integrated spreadsheet. In this study using undergraduate respondents of accounting education. As for the design of experiments designed is Pre experimental model of one group pretest-posttest In this study, to test the hypothesis used to test Independent, to determine whether there is difference in learning outcomes before and after using the accounting module trading company based spreadsheet and integrated spreadsheet.

**FINDINGS**

The module is a means of organizing the subject matter is concerned about the function of education. Organizing strategies of learning materials containing sequencing which refers to the making of the order of presentation of the subject matter, and synthesizing that refers to the attempt to demonstrate to students the relationship between facts, concepts, procedures and principles contained in learning materials. To design learning materials, there are five categories of capabilities that can be learned by the learners, verbal information, intellectual skills, cognitive strategies, attitudes, and motoric skills. Organizing strategies learning material consists of three stages of the process of thinking, namely the establishment of the concept, the concept interpretation and application of the principle. These strategies play a pivotal role in designing the study. Its usefulness can make students more interested in learning, students learn departed from Prerequisites automatic, and can improve learning outcomes. The use of modules is often associated with independent learning activities (self-instruction). Because its function as mentioned above, the other consequences that must be met by this module is the completeness of the contents; meaning that the content or material grain of a module must complete unassisted through dish-dish so with so readers feel quite understand the specific field of study of the results of learning through this module.

The module is a tool or learning tool containing materials, methods, limitations, and how to evaluate systematically designed and attractive to achieve the expected competencies in accordance with the level of complexity. To determine whether there is difference in learning outcomes before and after using the accounting module-based trading company and an integrated spreadsheet using independent t test, where we tested is the pretest and post-test. The calculation result of hypothesis testing by independent t test was as follows:

**Table 1. Independent samples test**

|                             | Levene's Test for Equality of Variances |      | t-test for Equality of Means |        |                 |                 |                       |                                           |         |
|-----------------------------|-----------------------------------------|------|------------------------------|--------|-----------------|-----------------|-----------------------|-------------------------------------------|---------|
|                             | F                                       | Sig. | t                            | df     | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |         |
|                             |                                         |      |                              |        |                 |                 |                       | Lower                                     | Upper   |
| Equal variances assumed     | 31.105                                  | .000 | 3.024                        | 84     | .003            | 3.69767         | 1.22273               | 1.26614                                   | 6.12921 |
| Equal variances not assumed |                                         |      | 3.024                        | 53.852 | .004            | 3.69767         | 1.22273               | 1.24609                                   | 6.14925 |

Based on the results of independent t test in Table 1, the calculated values generated at the level of 95% smaller than  $\alpha = 5\%$ . Thus it can be stated  $H_0$  rejected and  $H_a$  accepted. So it can be stated that there are differences

in learning outcomes convincing before and after using the accounting module and spreadsheet-based trading company integrated spreadsheet.

**Table 2. Results of the mean difference test**

|    | VAR00001  | N  | Mean    | Std. Deviation | Std. Error Mean |
|----|-----------|----|---------|----------------|-----------------|
| FS | dim 1.00  | 43 | 73.9535 | 2.84482        | .43383          |
|    | ensi 2.00 | 43 | 70.2558 | 7.49633        | 1.14318         |
|    | onl       |    |         |                |                 |

Based on Table 2, the mean value for the pre-posttest experimental group amounted to 73.9 while the mean value of pre-posttest control group of 70. Thus, the average value of pre-posttest experimental group was higher than the pre-posttest group control. The provision of pre-tests on respondents was conducted before the respondents were learning about the preparation of financial statements for a merchandising business using trade accounting module with a spreadsheet in the first half of the semesters. Furthermore, the treatment (treatment), treatment is done by providing accounting module spreadsheet-based trading company on the respondents. In this treatment of respondents use learning modules integrated trading company accounting spreadsheet accompanied by ICT in the form of computer (notebook).

With the spreadsheet had been prepared in the accounting module used as a trading company that this treatment, more respondents can understand the cycle of trading company's financial statements. Spreadsheet in this module integrates with spreadsheet format existing in the computer (notebook). The use of ICT in the form of computer (notebook) in accounting learning attracts the attention of respondents. At the end of the study, done post-tests on respondents to assess learning outcomes. Having held post-tests on respondents, the results obtained by different tests. The final result can be seen from the analysis of the pre-test and post-test as in Table 1 and 2. In table 1 show that after getting treatment with learning modules integrated trading company accounting spreadsheet obtained by the average value of pre-posttest for the control group of 70 and the experimental group after getting treatment obtain the average value of 73.9. Results of study respondents experienced an increase after the use of the learning module learning modules integrated trading company accounting spreadsheet.

Learning with the help of accounting module spreadsheet-based trading company gives respondents an opportunity more actively to build an understanding of the material being studied. Assisted in the learning process with the module is designed in such a way to provide a wide range of creative content, which aims to build / construct knowledge about the material being studied. The modules have been designed can be used by respondents for independent learning in the classroom and at home so it does not depend on the teacher. The module is basically a self-instruction. Therefore, the module emphasizes learning through active role respondents to teach you. Nonetheless, the learning module does not absolve the role of teachers in the classroom. Accounting subjects is one of the subjects who had a procedural nature. In addition, the level of complexity of accounting has high teaching materials.

Implementation of the modules have a positive influence on learning, media modules can increase the percentage of students learning completeness and liveliness during the learning process. Implementation module through this experiment with the material accounting cycle trading companies can reduce misconceptions, increase interest, activities, learning outcomes, computer literacy, and student response. Accounting module integrated trading company spreadsheet that is a set of teaching materials such as books presented systematically with the aim for students to learn independently with or without the guidance of a teacher. Inside the module there is a description of the material on the accounting cycle trading company that originated from the journaling activities to the financial statements. Their instructions for using the module will assist teachers and students in using the module. In addition formative tests, their practicum accounting cycle trading companies conducted by students can also be used to measure the level of student mastery of the material accounting cycle trading company. Students are required to complete the accounting cycle case study about a trading company during a certain period in the practicum. The existence of the answer sheet provided in the resolution of practical problems that will make students more easily in completing practicum. By this learning will be more effective study results on the material accounting cycle trading company that achieved from the learning activities can be optimal. The purpose of the media of this module is to help students more easily understand the accounting cycle of a company, especially in the accounting cycle trading company through the material presented in the module. Students can also learn the accounting cycle start journaling activities up to prepare financial statements in their entirety by this module through practical activities with answer sheet facility. In addition, this module can also be used as an additional source of learning because in this module also contained material accounting cycle trading company. Teachers also can use it as a bridge in delivering course

material to make it easier. Communication between students and teacher can be better. With so many benefits to be obtained either by teachers and students when using this medium as a partner of study.

## CONCLUSION

The module is considered one of the teaching materials effectively and efficiently. Based on the results of different test Wilcoxon show results there are differences in learning outcomes convincing before and after using the accounting module and spreadsheet-based trading company integrated spreadsheet. Aided learning module is a business organization of individual learning that enables learners to master the lesson material unit. To improve the quality of modules necessary to develop their electronic modules. The development of ICT-based modules can use the program of Adobe Flash CS5. Through the program, Adobe Flash CS 5 has the advantages of easy control access learning pages, in addition to the electronic module can display animations, text, images and video that cannot be done through paper-based modules.

## REFERENCES

- DeWitt Dorothy. 2014. Collaborative Learning: A Module for Learning Secondary School Science. *International Forum of Educational Technology & Society (IFETS)*. *Educational Technology & Society*, 17 (1), 89–101.
- Handler Beth. 2010. Teacher as Curriculum Leader: A Consideration of the Appropriateness of that Role Assignment to Classroom-Based Practitioners. *International Journal of Teacher Leadership* Volume 3, Number 3, winter 2010.
- Hopkins, D. (2000). Powerful learning, powerful teachers and powerful schools. *Journal of Educational Change*, 1, 135-154.
- Khalid Abida et all. 2012. Constructivist Vs Traditional: Effective Instructional Approach in Teacher Education. *International Journal of Humanities and Social Science* Vol. 2 No. 5; March 2012.
- Laffey, J. M. & Singer, J. (1997). Using mapping for cognitive assessment in project-based science. *Journal of Interactive Learning Research*, 8, 363-387.
- Misra Srikant. 2012. Implications of Globalization on Education. *Romanian Journal for Multidimensional Education* ISSN: 2066 – 7329 (print), ISSN: 2067 – 9270.
- Norlidah Alias. 2012. Design and Development of Physics Module based on Learning Style and Appropriate Technology by Employing Isman Instructional Design Model. *The Turkish Online Journal of Educational Technology* – October 2012, volume 11 Issue 4.
- Psacharopoulos George. 2004. Returns to Investment in Education: A Further. *Journal Education Economics*, Vol. 12, No. 2, August 2004.
- Robertson Ian 2008. VET Teachers' Knowledge and Expertise . *International Journal of Training Research* . Volume 6, Number 1, 2008 pp 1-22.
- Robinson W Jerry. 1972. Learning Modules: A concept for extension educators. *Journal of extension* 1972.
- Rowe Frances A. 2013. Instructional Design Interventions for Supporting Self-Regulated Learning: Enhancing Academic Outcomes in Postsecondary E-Learning Environments. *Journal of Online Learning and Teaching* Vol. 9, No. 4, December 2013.
- Stoyanova, N. & Kommers, P. (2002). Concept mapping as a medium of shared cognition in computer-supported collaborative problem solving. *Journal of Interactive Learning Research*, 13, 111-133.