

THE EFFECT OF THE PRIOR KNOWLEDGE TO THE STUDENTS LEARNING PROCESS AND OUTCOMES ON COURSE THE BASIC FINANCIAL ACCOUNTING I

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Abstract

Some previous study results show that prior knowledge has positive influence on one's learning outcomes (Warsnak, 1996; Hailikari et al, 2008; Froyd and Symson, 2010). Students will gain a better learning outcomes if they already have prior knowledge about the subject studied. The students of Politeknik Negeri Batam, especially students of managerial accounting, graduated from high school with a variety of disciplines. Most of them are the graduates of high school majoring science and social. Some others are the graduates of vocational school majoring in Accounting. Therefore, the authors are interested in figuring out the influences of prior knowledge on learning outcomes of students taking The basic financial accounting I. The research is committed at Politeknik Negeri Batam. The sample students are Managerial Accounting students academic year 2011-2013, who have already taken The basic financial accounting I. In addition, the role of lecturers are also assessed in order to determine whether the lecturers teaching materials as well as teaching techniques contribute well to the learning outcomes. The method of analysis is qualitative descriptive that describes the influence of prior knowledge toward student learning results (grade). The results of the research shows that prior knowledge is not fully proven to give positive influence to the learning outcomes of the students. The positive effect is applied only to the students who got an A in the subject whilst the other students' grades do not show the positive effect. In addition, the writer finds that the contribution of the lecturers, the teaching materials and the teaching techniques) give positive influence toward the students' learning outcome. The students who have no accounting prior knowledge can still get A in the subject since the lecturers design an easy-to-understand materials as well as the lecturers give personal guidance for the students who have difficulties in understanding the subject..

Keywords: *prior knowledge, learning outcomes, teaching materials, teaching techniques*

1. Introduction

The basic financial Accounting is a compulsory subject for students in the first semester in Managerial Accounting Study Program. All students enroll in this course generally is a new student who graduated from General high schools and vocational high school. Some of them are from Social Sciences, some other are from Science, and the rest are even from accounting major. The students who were majoring accounting Accounting when they were at high school find the principle of accounting as a repetition subject. In addition, the students majoring social science had also got the same content of accounting principles. On the other hand, the students who are majoring science find the subject as a new one. They did not have any background knowledge about accounting when they were at high school.

These differences bring the students of first semester in Managerial Accounting department to different level of knowledge. Since they are from different level of knowledge on accounting, their learning process and learning outcomes

respectively will be affected. Many studies have found that prior knowledge contribute a major impact on learning outcomes. Some of the previous studies which are generally discussed about the effect of prior knowledge on learning outcomes are committed by Warsnak (1996), Hailikari et al (2008), and Froyd and Symson (2010).

Referring to the result of the previous studies, the researchers are interested to see how much the influence of prior knowledge (PK) is contributed to the learning outcomes in the basic financial accounting I subject. This study also wants to see how it affects the learning process in the course itself. The influence of the learning process will be seen from the side of the students, teacher, and the contents of the courses that have been defined on the course curriculum.

2. Problem Formulation

The information that will be discussed in this study are:

- a. How Prior Knowledge influence towards the process of learning and learning

outcomes of students in the basic financial accounting I.

- b. The content of the basic financial accounting I subject in Managerial Accounting Department.
- c. The role of lecturers in facilitating students who do not have accounting basic knowledge.

3. Limitation Problem

The data used in this study are limited only to:

- a. Data from the academic division to know the educational background of students enrolled from 2011 to 2014.
- b. The data obtained from the administration staf of Managerial Accounting Department, especially student scores for the basic financial accounting I subject from 2011 to 2014.
- c. Data from the questionnaires completed by the lecturer of the basic financial accounting I.
- d. Data from questionnaires filled out by the head of managerial accounting department related to the curriculum and the content of the course the basic financial accounting I.

4. Research Objectives

The objectives of committing the research are:

- a. To determine the influence of prior knowledge on student learning outcomes.
- b. To determine the curriculum content of the basic financial accounting I in Managerial accounting department of Politeknik Negeri Batam.
- c. To determine the role and techniques of the lecturers teaching the basic financial accounting I subject to give good understanding to all students.

5. Benefits Research

The result of this study is expected to contribute ideas which can be used as reference at Politeknik Negeri Batam, particularly in setting or developing the curriculum for the basic financial accounting I subject as well as creating the teaching materials. Those two things are expected can eventually eliminate the gap between students who already have knowledge in the same field the student who is completely new in the course, so that the process and outcomes of learning in this course is not only determined by prior knowledge.

6. Literature Review

Prior Knowledge

Knuth and James in Warsnak (1996) defines prior knowledge as life experiences vicariously or experienced by others, things that had previously

been read or jobs previously done, and also the experience associated with the language. Strangman and Hill in Warsnak (1996) adds that prior knowledge is knowledge of specific dimensions such as metacognition, strategy, personal, self-knowledge, and knowledge of the concept.

Donald in Hailikari et al (2008) says that inadequate or fragmented prior knowledge can cause mismatch between the instructors' expectations of student knowledge and the students' actual knowledge base, learning may be hampered from the start of the studies. In addition, Hailikari et al (2008) find that the students will have difficulty in following the lessons if they do not have the same knowledge beforehand. Moreover, McCombs and Whistler in Froyd and Symson (2010) say that prior knowledge is a major influence on learning outcomes in one's future.

Curriculum

Nunan in Yilmaz (2011) defines curriculum as a basic principle, referral, and procedures to be planned, implemented, evaluated, and managed for an educational program. In addition, Al-Murabit McKeman (2012) understand the current curriculum as a concept used to describe the scope of teaching materials in an educational institution. In addition, Brown in Hall and hewing (2001) says that the curriculum can be developed with reference to five points, such as compatibility, relative advantage, complexity, trialability, and observability. Hall and hewing (2001) adds that compatibility of a new idea with the current idea, as well as the the condition of the teachers and students, affect the future absortion and implementation of the idea.

Role Lecturer in Teaching and Learning

Damanpour and Evan in Hadley (2006) state that creativity is needed in developing a course for teachers because they are those who directly witnessed the situation and behavior of learners. In other words, teachers are the people who should know the material and what new things given for their students.

Rea-Dickins & Gardner (2000) added that the main task of a teacher is to prepare a plan related to what will be taught. Moreover, Markee in Hall and Hewings (2001) mentions that the role of the teacher in implementing the curriculum that has been prepared is very important because the teacher is a major player that will determine the course where it will be taken and how the course was going to be packed.

7. Research Method

Object of the Research

The object of this research is the students of Managerial Accounting department who have

already passed the basic financial accounting I subject. They are all who enrol in AY 2011 to 2014. The questionnaire are filled by lecturers who had been assigned or are at the moment teaching the basic financial accounting I subject.

Data Collection Techniques

The data used in this study are collected by taking the data from the documentation of administration staff particularly the score of the students who are taken as the object of the research. In addition, the questionnaire is given to the lecturers who had been assigned or are at the moment teaching the basic financial accounting I subject, to finds out the roles of the teachers in facilitating the students pass the subject.

Method of Data Analysis

Data in this research are analysed qualitatively and quantitatively. The data of students score for the basic financial accounting I subject are quantitatively analysed whilts the data from the questionnaire are analysed qualitatively. The quantitative analysed data is purpose to see the effect of prior knowledge on learning outcomes of the students based upon their knowledge on accounting. In addition, it is used to find out if there is difference between the outcome of the students with background knowledge of accounting since high from the the outcome of the students without background knowledge in Accounting since high school.

8. Result and Discussions

Description of Research Data

All data collected and used in this research are divided into 2 groups of data. They are the data about the major study of the respondents in high school and the data about respondents score in the principle of accounting I subject. All the data are showed in table 1 as followed:

Table 1. The Distribution of Respondents Major of Study in High Schools

Major Study	Quantity	Percentage (%)
Accounting	156	63
Non Accounting	90	37
Total	246	100

Source: analysed data

Based on the above data distribution shown in table 1, it can be seen that of the 246 respondents there are 156 students (63%) majoring/ Accounting, and there were 90 students (37%) majoring non Accounting . From the table above it is known that the

number of students who have background knowledge in accounting are more than the number of students whose background knowledge are non accounting studies. It is which nearly doubled.

The distributions of students score for The principle of accounting I subject for the above groups are shown in table 2 as followed:

Table 2. The Distributions of Students Score for The Basic Financial Accounting I

Major Study	score											(%)
	A	A-	B+	B	B-	C+	C	C-	D+	D	E	
Accounting	83	31	8	7	14	6	2	3	0	2	0	63
Non Accounting	39	24	5	4	8	6	2	1	0	1	0	37
Total	122	55	13	11	22	12	4	4	0	3	0	100
(%)	50	22	5	4	9	4	2	2	0	2	0	100

Source: analysed data

Based on the distribution in table 2 above, it can be seen that there are 122 students who get A. 83 of them are from accounting major study. The number of students who get grade A- are 55 students. 31 of them are Accounting major study. The rest of the students get B +, B, B-, C +, C, C-, and so on with almost similar comparison between students from Accounting and non Accounting ones.

Further more, the questionnaires are given to 4 people lecturers. However, there are only 2 lecturers who fill in a questionnaire while 2 others do not fill it. The questionnaires describe that the teachers are objective and outcomes oriented. The teaching material is design based upon the condition of the students in the class. The design enables the students from non accounting background to understand well the basic theory in accounting. Beside that, the lecturers also provide extra time after class sessions for students to discuss any difficulties faced by the students.

Discussion of Research

a. The influence of prior knowledge on student learning outcomes

Based on the results shown in Table 2, it can be that the effect of prior knowledge on learning outcomes of Managerial accounting students at Politeknik Negeri Batam, especially in the basic financial accounting I subject is not fully applicable. The evident of student learning outcomes shows that the learning outcome of student with accounting background knowledge and the learning outcome of student without accounting background knowledge do not differ much A Significant difference is noticeably visible from the learning outcomes of students who get A. On the other hand, the number of students with accounting background and non accounting background who get A- to E are almost equal.

The results of this study indicate that students who do not have basic knowledge in accounting do not have significant difficulties to understand the

principle of accounting theories during the learning process. Therefore, the study result of Hailikari, et al (2008) which states that students will have difficulty in following the lessons if they do not have the same knowledge beforehand is not supported by the results of the data collected in this study. In addition, the statement of McCombs and Whistler in Symson (2010) who state that prior knowledge is a huge influence on learning outcomes, can be partially supported by the data of this research since the number of students with accounting background who get A is doubled the number of students with non accounting background who get A. However, the data of them who get A- to E can also support that the findings of McCombs and Whistler in Symson (2010) are also partially not proven in this study.

b. Curriculum Content for The Basic Financial Accounting I subject

The content of the basic financial accounting I syllabus shows that the lecturers who design the syllabus had accomodate all topics outlined in the curriculum. It means that lecturers had done their roles very well in preparing the design of the subject. Lecturers have made curriculum and syllabus as a reference and referral in designing teaching material as well (Nunan in Yilmaz, 2011). They start the subject with the basic concept of accounting which then move to more complex concepts. This way of organizing the syllabus or teaching material seems to follow the terms in developing the curriculum and syllabus introduced by Hall and Hewig Broewn (2011).

c. The role of lecturers in teaching teaching The Basic Financial Accounting I subject

Lecturers have big roles in teaching process. The data from the questionnaires show that the lecturers for the basic financial accounting I subject always try to accomodate the needs of students with non accounting background. They creatively try to adjust the class condition where then all students can enjoy the subject and get better understanding to the subject. The lecturers give real and up to date example which can be simply understand by all level of knowledge in accounting. In addition, the interesting teaching materials as well as the models of exercises given by the lecturers are able to bring the students to an enjoyable classroom environments. This is just like what Markee in Hall and Hewig (2011) stated about the roles of teachers. It is said that Adjustment method of learning in each class is a form of actualization of teachers' roles as parties who can see where and how to pack a lecture. Giving students the opportunity to ask indicates that the lecturers have positioned themselves as people who should know best the materials and people who are able to explain with a more understandable language to the students (Damanpour and Evan in Hadley, 2006).

9. Conclusions

Based on the analysis of the discussion in the previous chapter, this research can be summarized as followed:

1. The effect of prior knowledge on learning outcomes of the students in Managerial accounting department are not empirically support the previous study. The results of this study show that the difference is only found to students who get A. The number of the students with accounting background who get A is double the number of students with non accounting background who get A. Meanwhile, the number of students who get grades A- to D almost have no difference between them with or without accounting background knowledge.
2. The lecturers have refered the content of the teaching materials with the content of the syllabus and curriculum for the basic financial accounting I subject.
3. The role of lecturers in teaching the students who are not from Accounting major study has been very good. The lecturers are also try to adjust the teaching method in order to accomodate the students with non accounting background knowledge. They provide a method of learning that is not monotonous so that the students do not get bored with the subject. Moreover, the lecturers also give extra time for the student after the class if they still have questions and difficulties with the subject.

10. Suggestions

The following items are suggestions to be applied in the next related study, which are also the weakness of this study:

1. The use of other variables that can affect student learning outcomes, such as the interests and talents of students are concerned.
2. The respondents who filled the questionnaires should not only the lecturers of the subjects but the students should also ask related to factors that affect their learning outcomes.
3. the data for Future research on related topic can be analyzed using inductive statistic method to find out the differences between previous major study and the assessment process for learning outcome.

REFERENCES

- [1] Al-Murabit, A. 2012. A closer look at an English language curriculum of a community college in Saudi Arabia. *English language teaching*, vol. 5, no. 8, p. 226-242.
- [2] Brown, K. 2001. 'World Englishes in TESOL programs: An infusion model of curricular innovation', in Hall D.R & Hewings A (eds),

- Innovation in English language teaching*, Routledge, Canada, pp. 108-117.
- [3] Froyd, J and Sinsom, N. 2010. *Student-Centered Learning Addressing Faculty Questions about Student-centered Learning*. http://ccliconference.org/files/2010/03/Froyd_S tu-CenteredLearning.pdf
- [4] Hadley, G. 2006. 'Challenges to innovation in Japanese tertiary educational institutions: the case of advanced CEP'. *Niigata University of International and Information Studies Journal of research*, vol. 9, pp. 29-41.
- [5] Hailikari, T, Katajavuri N, and Lindblom-Ylänne S. 2008. *The relevance of prior knowledge in learning and instructional design*. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2630138/>
- [6] Markee, N. 2001. 'The diffusion of innovation in language teaching', in Hall D.R & Hewings A (eds), *Innovation in English language teaching*, Routledge, Canada, pp. 118-126.
- [7] Rea-Dickins, P. P., & Gardner, S. S. 2000. Snares and silver bullets: disentangling the construct of formative assessment. *Language Testing*, 17(2), 215-243.
- [8] Warsnak, AD. 1996. *The effects of activating prior knowledge before reading on students with and without learning disability*. <http://soar.wichita.edu/bitstream/handle/10057/256/t06002.pdf?sequence=3>
- [9] Yilmaz, F. 2011. 'Evaluating language curriculum at jagiellonian university in Poland: a case study'. *Zivot i skola*, issue 25, p. 76-90.