

**PATH ANALYSIS :
THE DETERMINANT OF STUDENT LEARNING OUTCOMES IN
ACCOUNTING INTRODUCTION COURSES
(Study at Private Higher Education in Jakarta)**

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Abstract: The purpose of this study is to test and prove empirically the influence of the ability of mathematics, gender, previous accounting knowledge, work experience and age to student learning outcomes as well as the influence of lecturer competence as a moderating variable relationship between mathematical ability with student learning outcomes in subjects Introduction to Accounting I and Introduction Accounting II.

The result of research of student's mathematics ability have positive and significant effect on Learning Outcomes Introduction to Accounting I and Introduction to Accounting II. Gender affects positively and insignificantly on Accounting Study I Learning Outcomes I but male gender negatively and significantly influence to Accounting Introduction II Learning Outcomes. Previous Accounting Knowledge has a positive and significant influence on Learning Outcomes Introduction Accounting I but has a positive and insignificant effect on Learning Outcomes Introduction Accounting II. Work Experience has negative and insignificant effect. Student age has positive and insignificant effect on Learning Outcomes Introduction to Accounting I and Introduction to Accounting II. Lecturer Competence Introduction to Accounting I and Introduction to Accounting II not as a moderator variable relationship between Mathematical Ability with Learning Outcomes Introduction to accounting I as well as Introduction to Accounting II.

Based on the results of analysis and testing the hypothesis above it is advisable to improve the competence of lecturers who teach the courses Introduction to Accounting I and Introduction to Accounting II for Results Introduction to Accounting I and Introduction to Accounting II can achieve the desired goals.

Introduction

The history of the development of accounting thought has actually existed since ancient Greece and Rome to other European and American lands but the newly popular accounting term after 1494 Luca Pacioli published a book entitled "Summa de Arithmetica Geomeria, Proportioni et Proportionalita". This book is actually about arithmetic, geometric and proportion, but one of the chapters of this book is called "Particularis de Computies et Scripturis" which discusses and teaches a complete pair of bookkeeping systems. The book discusses how to prepare inventory and suggestions to use three main books, namely (1) memoranda; (2) Journal; and (3) ledgers.] (Hendrawan, Herawan Wibnu, 2004).

Keywords: Mathematical Ability, Gender, Previous Accounting Knowledge, Work Experience, Age, Lecturer Competency, Student Learning Outcomes.

Luca Pacioli is a seminarian or a Franciscan order friar. Besides Pacioli is also a teacher and writer of mathematics and theology who teaches at several universities in Parugia, Florence, Pisa, and Bologna.

At the end of the 19th century some changes have shaped the accounting system presented by pacioli into a form more suited to the needs of the large industrial corporations that characterize the world. In the United States AICPA was born an organization that issued a CPA certificate, as well as AAA (American Accounting Association) and other related organizations. In Australia there is the Australian Society of Accountants and the Institute of Chartered Accountants in Australia. In the Netherlands there is the Netherlands Institute Vam Register Accountns. In the UK there are the Chartered Association Of Certified Accounts and the Institute Of Chartered Accountants in England and Wales. In Italy there is Consiglio Nazionale dei Dottori Commercialisti, In Germany there is an Intitute der Wirtchaptsprufer in deut land eV. Wirtschaft Uferkammer. In Japan there are Japanese Institute of Certified Public Accountants and countries in other countries such as Canada, Malaysia, Singapore, Philippines, Thailand including Indonesia has a professional accounting organization.

In addition to professional organizations, the development of accounting is characterized by the emergence of higher education institutions that teach accounting both in Indonesia and in the world. The level of formal education In the field of accounting from level Diploma to Doctor. Students who follow accounting education are students who come from different majors. The origin of majors that usually exist in educated accounting are Natural science, Social science, Vocational and others. In High School or Vocational High School students have received math lessons. Accounting lessons are studied exclusively for specific vocational majors.

In the teaching of basic accounting courses, the first material given is the understanding of this accounting equation using the concepts that exist in accounting so that the birth of debit and credit laws. It is known together the formula of accounting equation is: $ASSETS = LIABILITIES + CAPITAL$. When derived in debit and credit terms $DEBIT = CREDIT$, meaning the asset balance (left side of equation) is debited liabilities and capital (right side of equation) is credit. As the company goes about operating it will result in a profit or loss generated from the difference in revenue deducted at a expense. When the revenue is greater than the expense of the difference is the profit and vice versa if revenue is less than the expense will arise loss. The accounting equation after the operation of the company will be $ASSETS = LIABILITIES + CAPITAL + REVENUE - EXPENSE$.

If the equation is incorporated into the concept of debit and credit then the revenue will be normal credit due to being on the right of equation and marked positive (unidirectional), while the expense will be normal debit balance because although it is on the right side but the sign is negative. Mathematically the negative sign to the right of the equation when moved to the left of the equation the sign will change to positive or debit. Understanding the concept of debit and credit that is the main basis of the understanding of accounting is a logical process of thinking that comes from mathematical concepts.

An estimate would be the debit or credit capital balance depending on which group of estimates there are. If an estimate is in the asset class then the normal balance of the estimate is debit, if it is in the group of liabilities and capital it will have a normal balance of credit. Likewise, because the revenue is on the right side of the equation, then the revenue will be normal credit balance, while the expense because it is located on the left equation, it will be normal debit balance.

The mechanism of debiting and crediting is shown in the journalizing process. A financial transaction will be recorded in a journal form. The effect of the addition and subtraction of an estimate will be shown in the debiting and crediting mechanism. The rule of whether an estimate is in debit or in credit is based on the normal balance of the forecast (derived from the accounting equation).

If a transaction affects the addition of an account, the debiting and crediting process is in line with the normal balance while if reduced it will be contrary to the normal balance. For example cash account, because cash is an asset, then the normal cash balance is in debit, so that when cash increases it will be in debit (unidirectional), whereas if cash is reduced will be in credit (opposite). Likewise with the liabilities, because liabilities normal credit balance, then when liabilities will be added to the credit (unidirectional) while if reduced will be debited (opposite).

From the description above looks that to be able to understand accounting, especially Introduction to Accounting I, a student at least understand the logic in mathematics. In Introduction to Accounting II students are given materials related to account accounts present in the balance sheet. In studying every account in the balance sheet there is also a mathematical element in each discussion. For example, in studying the contents of cash in the material bank reconciliation there is an element of balance that must be done. In discussing cash also includes the required journals. So the journal element is never separated from the accounting courses.

In addition, the birth of the term accounting (system in pairs) is due to the publication of Luca Pacioli's book containing mathematical science and published by a mathematician. Researchers are interested to see if there is a relationship between a person's mathematical ability with success in accounting lessons.

The studies conducted to see the relationship between mathematical ability with accounting in Higher Education has been done. Average outside Indonesia. In Indonesia researchers have not found many studies that discuss the same problem.

Some of the studies that have been conducted include: Eskew & Faley (1988), Gol & fong (1993), Ward (1993) who found that mathematical background influenced performance, while Bucartlett & Gish (1993) found no mathematical influence on performance.

Student performance in accounting other than influenced by math ability is also influenced by factors such as gender. Several studies on gender effects on learning success, mostly held in USA & UK, are motivated by an increasing number of female students in accounting majors. The studies were conducted by Mutchel (1987), Canlar & Bristol (1998) and Willian (1991). The results of these studies are still causing controversy. Research conducted by Lipe (1989) and Willian (1991) obtained the result that female performance better. Meanwhile, research conducted

by Better concluded that male performance is better (although the results are not statistically significant). Muctcher (1987), Tyson (1989), Canlar & Bristol (1988), Eskew & Faley (1988), Buckless (1991), Carpenter (1993) & Gist (1996) concluded that performance was not good in introductory accounting but not on accounting advanced.

The difference in outcomes can be due to differences in research design. For example the relationship between students & instructors from the gender side can disrupt the results, as suggested by Muther (1987) & Lipe (1989). Differences in test questions and teaching can also give different performance (Mitchell, 1989; Revenscroft & Buckless, 1992).

People who have studied accounting should have better performance in accounting lessons, than people who have never studied accounting. But the results of some research in various institutions and countries do not support this assumption. Friodlob and Cosenza (1981), Eskew & Faley (1988), Gul & Fong (1993), Bartlett (1993), Loveday (1993), Gist (1996) reported that significantly the students who had studied the performance accounting were better than the never studied but only in introductory accounting. Michall (1985) and Doran (1991) supported Baldwin & Howe (1982), Bergin (1983) opinion that the best students who studied accounting only in the first year, the next year were bad. Keef (1988) concluded that prior acquired accounting knowledge significantly did not cause performance differences.

The differences in the results of the above studies are caused by differences in conditions. Previous accounting knowledge is not controlled by content and learning period. For example Loveday (1993) found that knowledge in high school influences when knowledge is relevant to the material at the University. Schroeder (1986) found that accounting knowledge in high school would have an effect if studied for at least 2 years.

Another factor that also affects student performance is work experience. Experience is distinguished from experience gained from internship and not internship. Internship produces training and affects performance. Moses (1987) found that the scores on 2 accounting courses were influenced by work experience in accounting & finance. Knechel & Snowball (1987) found that the performance of students who had been internship better than those who did not, only in auditing lessons. English & Koeppen (1993) found that students who participated in the internship performance & GPA was better than those who did not.

Age of a person also affects the performance of students

Dockweiler & Willis (1994) found that age (at entry) plays an important role in performance. Bartlett (1993) found that age had no significant effect on performance. Older students tend to score poorly on the final exam of the program.

To carry out the task of improving the teaching and learning process in Higher Education, the lecturer occupies the position as the central figure. In the hands of lecturers lies the likelihood of success or failure of teaching and learning process achievement, and the dependence of the future of the student becomes the pedestal of his parents. In order for lecturers to be able to perform their duties properly,

lecturers should understand carefully the things related to teaching and learning process (Rusyan, A.T., et al, 1994).

Research in the field of education is one effort directed to improve learning outcomes and quality of students and find the variables that affect the success of learning. Arismunandar (1996) grouped the educational research into two classes. Until 1970, some researchers still believe that student learning outcomes are strongly influenced by student innate factors such as socio-economic characteristics, race, family background and material factors such as class size, school, budget size, library and equipment. In the latter part of the 1980s, there were new findings that rejected the argument. For example, Buller concludes that even with limited resources, school organizations have a very strong influence on students' learning outcomes, regardless of the influence of family background factors (In Arismunandar, 1996).

It was supported by Witte and Wallsh who claimed that basically the process, environment, school structure would cause differences in student learning outcomes (in Arismunandar, 1996). Similarly, research by Cheg, Smart, and Jhon concluded that schools with strong organizational culture (ideals, beliefs, and missions) tend to be viewed more effectively in terms of productivity, adaptation, and flexibility (In Arismunandar 1996).

Research conducted by Rowan, Malen et al., Conley, S Smylie et al (1996), and Mark's and Lois (1997) found that participating teachers' satisfaction in decision making can be used to improve the quality of teaching and learning of students. Thus the results of student learning can not be explained by only analyzing the learning and process class independently, separated from participation, school organization, or factors beyond the innate students, because there are some components of the school are believed to affect the process of learning in the classroom.

The performance of students in the field of accounting is not only influenced by factors that come from within the experienced student but also influenced by other factors outside the student. One of the factors to be studied by the author is a factor of the ability of lecturers in teaching or lecturer competence. This is based on research that the ability of students in accounting is also very influential to the teaching and learning process. A student who has a medium ability when raised by a lecturer who is able to educate and teach well then the results of accounting from students may not be much different from students who have high ability. Conversely students who already know the basics of accounting but if raised by a lecturer who does not or less meet the competence of teaching the results may not be so satisfactory. It may be that the student does not become increasing his accounting knowledge but instead becomes confused.

In the process of teaching and learning there are usually provisions or requirements for a lecturer to teach certain subjects, such as requirements on lecturer level, educational background, origin of Higher Education, teaching experience, personality and others. Teachers who have a good teaching practice will improve student achievement (Etmeir & God, 1981). (Sukrisno, 1999; p. 42)

According to Barlow (1980) teacher competence is the ability of a teacher in carrying out obligations in a responsible and feasible (Shah Muhibin, 1995 p. 229). So the professional competence of teachers can be interpreted as the ability of

teachers in running profession teacher, meaning that teachers who are skilled in carrying out their profession can be called as a competent and professional teacher (Shah Muhibin, 2002 p. 229). Competence is the personal aspect of an employee who can support all his or her ability to work brilliantly in that personal aspect including all the qualities, intelligence, motivation, values, attitudes, knowledge and skills and skills. Competence is the impetus of a strong behavioral drive of behavior to act optimally productively (Zainudin, 2001 p 2).

Based on the above description besides testing the factors of mathematical ability, gender, previous accounting knowledge, work experience, age to student performance in Introduction to Accounting I and Introduction to Accounting II, the research also examines the influence of lecturer competence as a moderating variable of lecturer competence factor in influencing between the mathematical abilities with the results of student lectures in the course Introduction to Accounting I and Introduction to Accounting II.

Theoretical Framework

Mathematical Ability

Mathematics is one of the parts of science. Before the known term mathematics known science such as algebra, arithmetic and geometry. Now these three sciences merge into one that is mathematics. Ability is a state that shows a person / something can do something that is shown to him / her. Mathematical ability is a situation where a person can perform or can work on cases contained in mathematics.

Student Learning Outcomes

Learning is any relatively settled change in behavior that occurs as an exercise or experience (Morgan in Siti Murtiyani, 2000). Learning is essentially a cognitive process that has the support of the psychomotor function of internal conditions contained within different students depending on the type of ability that will be developed in the learning activities. These abilities include motor skills. One of the goals of learning is to train students to be responsible for everything that is obligatory and to give the students the opportunity to do the work they can do (Orlosky D.E et al, 1984 in Murtiyani,2000) divide the learning objectives into two groups:

- 1) Educate students in various skills in academic as well as cognitive knowledge.
- 2) Educate students in developing individual and social skills and knowledge useful for both work and life.

Ability of Mathematics with Student Learning Outcomes in Introduction to Accounting Course

As expressed earlier that the science of accounting begins from the release of a book written by Luca Pacioli. The book is basically a book that contains arithmetic which is part of mathematics. Based on this, the researchers suspect there is a close relationship between mathematical ability with accounting. Students who have high math skills will get high learning accounting results compared to those with low math skills.

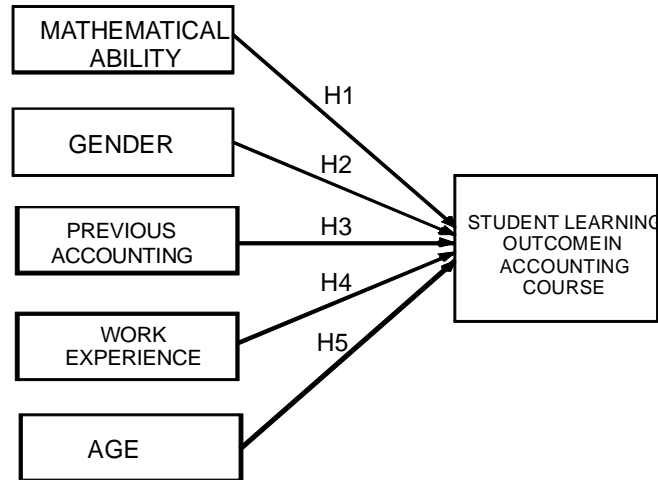


Figure 1: Research Model

Research Hypothesis

- H1a : The ability of Mathematics affects the results of student learning in the course Introduction to Accounting I.
- H1b : The ability of mathematics affects the results of student learning in the course Introduction to Accounting II.
- H2a : Gender Affects Student Learning Outcomes in Introductory Course I. Gender Affects Student Learning Outcomes in Introduction in Accounting Course I.
- H2b : Gender Affects Student Learning Outcomes in Introduction to Accounting Course II.
- H3a : Previous accounting knowledge influences Student Learning outcomes in Introduction to Accounting Course I.
- H3b : Previous accounting knowledge influences student learning outcomes in Introduction to Accounting courses II.
- H4a : Work Experience Affects Student Learning Outcomes in Introduction to Accounting Course I.
- H4b : Work Experience Affects Student Learning Outcomes in Introduction to Accounting Course II.
- H5a : Student age affects Student Learning outcomes in Introduction to Accounting Course I.
- H5b : Student age affects Student Learning outcomes in Introduction to Accounting courses II.
- H6a : Lecturers competency moderate the relationship between Mathematics Ability and Student Learning Outcomes in Introduction to Accounting Course I.
- H6b : Lecturers competency moderate the relationship between Mathematics Ability with Student Learning Outcomes in Introduction to Accounting Course II.

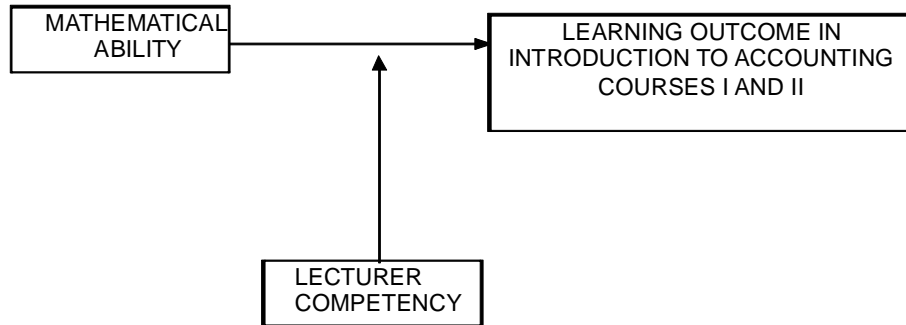


Figure 2: Moderating Research Models

Research methodology

Data Collection and Sample Selection

The population of this study is a large Private University in Jakarta. Selected private universities are private universities who are experienced in conducting accounting education that is large and accredited. The selected private universities are University of Persada Indonesia Y.A.I (UPI Y.A.I), Y.AI College of Economics 9STIE Y.A.I), Y.A.I Academy of Accounting (AA Y.A.I) and ABFII Institute Perbanas. Experience in conducting accounting education based on criteria has been more than 10 years. The selection of universities above is based on the reason that with their experience of holding accounting education, the accuracy of the data to be obtained can be more accounted for.

The research data was collected through semi open questionnaire. Respondents are accounting students. Students chosen to be respondents are students in 7th and 8th semester (final stage). The number of questionnaires sent to the students is expected to be 50 students for each university so that the number of student respondents is expected to amount to 200.

Implementation of the Survey

The distribution of questionnaires is done by visiting the universities directly used as sample research. Charging questionnaires filled out by students will be immediately awaited.

Data Analysis

Research data was analyzed by statistical tool, consisting of:

Non Response Bias Test

Non response bias test conducted aims to see the characteristics of answers given by respondents who do not discuss the questionnaire (non response) is different.

Non response response bias is done by grouping the accepted answers into two groups: (1) initial group is the questionnaire received by the researcher from the beginning to one week after the date of capture limit. And the final group is a

group whose questionnaire is received between one week after the date of the return limit. In this study to test non response response using t test (t-test)

Reliability and Validity Test

Huck and Curnier, (in Supriyadi 2000) argue that the quality of data obtained from the use of research instruments can be evaluated through reliability and validity tests.

Reliability test is done by calculating Cronbach Alpha from each item in one variable. Test Validity is done by factor analysis to ensure that each question will be classified on predefined variables (Construct validity). The factor analysis test is performed on the value of each variable with varimax rotation. To meet the consistency and accuracy of collected data, re-testing of consistency with Cronbach Alpha coefficients was performed.

Hypothesis testing

In this study testing hypothesis research using regression analysis, with statistical test using SPSS V 20 program.

Regression analysis to predict the relationship between dependent and independent variables is as follows:

$$Y_1 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon_1.$$

$$Y_2 = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon_2.$$

Information

Y1: Student Results Introductory Course I

Y2: Student Results Introductory Accounting Course II

X1: Mathematical Ability

X2: Gender

X3: Previous Accounting Knowledge

X4: Work Experience

X5: Age

β_0 : intercept

$\beta_1 - \beta_5$: The direction coefficient (slope)

ε : error term

To test the effect of moderating variable used Moderated Regression Analysis (MRA). The analytical methods used in this study have also been used by Mc Keen et al. (1994), Choe (1996), Chadarin and Indriantoro (1997), Setianingsih and Indriantoro (1998), and Restuningsih and Indriantoro (2000). The static equations used to help determine the moderator variables that support the relationship between mathematical ability and student learning outcomes are as follows:

$$Y_1 = a + b_1 X_1 \quad (1)$$

$$Y_1 = a + b_1 X_2 + b_2 XPA_1 \quad (2)$$

$$Y_1 = a + b_1 X_1 + b_2 XPA_1 + b_3 XP_1 \quad (3)$$

$$Y_2 = a + b_1 X_1 \quad (4)$$

$$Y2 = a + b_1 X2 + b_2 XPA2 \quad (5)$$

$$Y2 = a + b_1 X1 + b_2 XPA2 + b_3 XP2 \quad (6)$$

Information:

Y1: Student Results Introductory Course I

Y2: Student Results Introductory Accounting Course II

X1: Mathematical Ability

XPA1: Lecturer Participation Introduction to Accounting I

XPA2: Lecturer Participant Introduction to Accounting II

XP1: Interaction (X1 * XPA1)

XP2: Interaction (X1 * XPA2)

a: Intercept

b: Slope

The Moderated Regression Analysis Criteria (MRA) used as a basis for ensuring whether the variables XPA1 and XPA2 are really moderator variables (Shama, 1981 in Restuningdiah) are: If equations (2) and (6) are not significantly different ($b_3 = 0$; $b_2 \neq 0$) then XPA1 and XPA2 are not moderator variables.

Analysis Result

Descriptive Analysis

Distribution of 200 questionnaires to the respondents at four universities selected as each sample as many as 50 respondents, after examined it was a complete answer and can be processed as many as 133 questionnaires, with details of UPI YAI as many as 81 questionnaires, STIE YAI as many as 18 questionnaires, AA YAI 18 questionnaires and ABFI Institute Perbanas as much as 16 questionnaires.

The results of descriptive analysis of Mathematics Ability and Learning Outcomes Introduction to Accounting I to know the relationship between the two variables with low and high Mathematical Ability category, Learning Outcomes Introduction Accounting I low and high is presented in Table as follows:

Table 1
DY1: Kategori PA1 * DX: Kategori Matematika. Crosstabulation

		<i>DX: Kategori Matematika</i>			
			<i>0: Mat Low</i>	<i>1: Mat High</i>	<i>Total</i>
DY1: Kategori PA1	0: PA1 Low	Count	2	18	20
		% of Total	1,50%	13,50%	15,00%
	1: PA1 High	Count	14	99	113
		% of Total	10,50%	74,40%	85,00%
Total	Count	16	117	133	
	% of Total	12,00%	88,00%	100,00%	

Source: SPSS output

Table 1 shows that students with low mathematics ability of 16 people (12.00%) with low introductory accounting learning results only 2 people (1.50%), while the results of study introduction accounting I high 14 people (10.50%). Then for students with high mathematics ability as many as 117 people (88.0%) with low introductory accounting learning results only 20 people (15.0%), whereas learning outcomes introduction accounting I high 113 people (85.0%). This result gives the implies that high mathematical ability will support for learning outcomes in high accounting as well.

The results of descriptive analysis of Mathematics Ability and Learning Outcomes Introduction to Accounting II to determine the relationship between the two variables with low and high Mathematical Ability category, Learning Outcomes Introduction Accounting II low and high is presented in Table as follows:

Table 2
DY2: category PA2 * DX: category Mathematics. Crosstabulation

		<i>DX: Category Mathematics</i>			
			<i>0: Mat Low</i>	<i>1: Mat High</i>	<i>Total</i>
DY2: Category PA2	0: PA2 Low	Count	6	31	37
		% of Total	4,50%	23,30%	27,80%
	1: PA2 High	Count	10	86	96
		% of Total	7,50%	64,70%	72,20%
Total	Count	16	117	133	
	% of Total	12,00%	88,00%	100,00%	

Source: SPSS output

Table 2 shows for students with low mathematics skills of 16 people (12.00%) with low learning accounting learning results II only 6 people (4.50%), while the learning outcomes introduction accounting II high 10 people (7.50%). Then for students with high mathematics ability as many as 117 people (88.0%) with low learning accounting learning results II only 31 people (23.30%), while the learning outcomes introduction accounting II high 86 people (64.70%).

This result means that high mathematical ability will support the high learning results of accounting II as well.

Regression Analysis

The results of regression analysis and hypothesis testing are presented in Table 3.

Table 3 shows that students' mathematical abilities have a positive and significant influence on the Learning Outcomes of Accounting I with regression coefficient of 0.260 with a probability significance value of $0.002 < 0.05$. Gender has a negative and insignificant effect on Learning Outcomes Introduction Accounting I with regression coefficient of -0.184 with a probability value of significance of $0.186 > 0.05$. Previous Accounting Knowledge has a positive and significant influence on Learning Outcomes Accounting I with regression coefficient of 0.497 with a probability significance value of $0.000 < 0.05$. Work experience has a negative and

Table 3
Coefficients^a

<i>Model</i>	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
1 (Constant)	1,252	0,906		1,383	0,169
X1: Matematics	0,260	0,083	0,253	3,146	0,002
X2: Gender	-0,184	0,138	-0,107	-1,331	0,186
X3: PA Before	0,497	0,12	0,333	4,138	0,000
X4: Work	-0,238	0,216	-0,103	-1,104	0,271
X5: Age	0,009	0,05	0,016	0,169	0,866

a. Dependent Variable: Y1: Score PA 1

Source: SPSS output

insignificant influence on Learning Outcomes Accounting I with regression coefficient of -0.238 with a probability value of significance of $0.271 > 0.05$. The student age has a positive and insignificant influence on the Learning Outcomes of Accounting I with regression coefficient of 0.009 with a probability value of significance of $0.866 > 0.05$.

Table 4
Coefficients^a

<i>Model</i>	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
1 (Constant)	1,080	1,019		1,06	0,291
X1: Matematics	0,276	0,093	0,245	2,967	0,004
X2: Gender	-0,421	0,155	-0,223	-2,709	0,008
X3: PA Before	0,224	0,135	0,136	1,656	0,100
X4: Work	-0,350	0,243	-0,138	-1,445	0,151
X5: Age	0,048	0,057	0,08	0,841	0,402

a. Dependent Variable: Y2: Score PA 2

Source: SPSS output

Table 4 shows that students' mathematical abilities have a positive and significant influence on the Learning Outcomes of Accounting II with regression coefficient of 0.276 with a probability significance value of $0.004 < 0.05$. Male gender has a negative and significant influence on Accounting Study II with regression coefficient of -0.421 with a probability value of significance of $0.008 < 0.05$. Previous Accounting Knowledge has a positive and insignificant influence on Accounting Study II with regression coefficient of 0.224 with a probability value of significance of $0.100 > 0.05$. Work experience has a negative and insignificant effect on Learning Accounting Introduction Results II with regression coefficient of -0.350 with a probability value of significance of $0.151 > 0.05$. Student age has a positive and insignificant

influence on Learning Accounting Introduction Results II with regression coefficient of 0.048 with a probability value of significance of $0.402 > 0.05$.

Moderated Regression Analysis (MRA)

Influence of Lecturer Competence Introduction to Accounting I

Table 5
Coefficients^a

<i>Model</i>	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
1 (Constant)	2,582	0,779		3,315	0,001
X1: Mathematics	-0,068	0,498	-0,066	-0,136	0,892
XPA1 : Comp Lecture PA-1	-0,015	0,01	-0,31	-1,522	0,131
XP1: Inter Mat-PA1	0,004	0,006	0,359	0,676	0,500

a. Dependent Variable: Y1: Score PA 1

Source: SPSS output

Table 5 shows the interaction of variable Mathematics Capability with Lecturer Competence PA1 has positive and insignificant influence on Learning Results Introduction Accounting I with regression coefficient of 0.004 and significance value of $0.500 > 0.05$ this means that Lecturer Competence PA1 not as moderator or moderate relationship Ability Mathematics with Learning Outcomes Introduction to Accounting I.

Influence of Lecturer Competence Introduction to Accounting 2

Table 6
Coefficients^a

<i>Model</i>	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
1 (Constant)	1,461	1,049		1,392	0,166
X1: Matematics	0,961	0,613	0,852	1,566	0,120
XPA2 : Comp Lecture PA-2	0,001	0,011	0,021	0,112	0,911
XP2: Inter Mat-PA2	-0,007	0,007	-0,627	-1,071	0,286

a. Dependent Variable: Y2: ScorePA 2

Source: SPSS output

Table 6 shows the interaction of variable Mathematics Capability with lecturer Competence Introduction to Accounting 2 has a negative and insignificant effect

on Learning Accounting Introduction Results II with a regression coefficient of -0.007 and significance value of $0.286 > 0.05$ this gives the meaning that Lecturer Competence Introduction to Accounting 2 not as moderate or moderate relationships Mathematical Ability with Learning Outcomes Introduction to Accounting II.

Conclusions and Recommendations

Based on the results of hypothesis analysis and testing that has been done to conclude that the ability of students Mathematics positively and significantly influence on Learning Outcomes Introduction Accounting I and Introduction to Accounting II. Gender affects positively and insignificantly on the Learning Outcomes of Accounting I and gender of men negatively and significantly influence the Results of Introduction to Accounting II. Previous Accounting Knowledge has a positive and significant influence on Learning Outcomes Introduction Accounting I but has a positive and insignificant effect on Learning Outcomes Introduction Accounting II. Then Student Work Experience has a negative and insignificant effect on Learning Outcomes Introduction to Accounting I and Introduction to Accounting II. While the age of student influence positively and not signifikan to Result Learning Introduction Accounting I and Introduction of Accounting II. Lecturer Competence Introduction to Accounting I and Introduction to Accounting II is not as a moderator variable relationship between Mathematical Ability with Learning Outcomes Introduction to accounting I as well as Introduction to Accounting II.

Based on the results of analysis and testing the hypothesis above it is advisable to improve the competence of lecturers who teach the courses Introduction to Accounting I and Introduction to Accounting II for Results Introduction to Accounting I and Introduction to Accounting II can achieve the desired goals.

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RESCHIWATI AND SOEPRJADI

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