ANALYSIS OF FACTORS AFFECTING STUDENT LEARNING RESULTS
ON MATHEMATICS

Eliza

Department of Accounting,Faculty of Economics
Universitas Putra Indonesia YPTK, Padang, Indonesia
email: do.elizappn@yahoo.co.id / do.riza@yahoo.co.id

ABSTRACT

Education as a human effort is the best cultural aspect and result that every generation of human beings can provide for the benefit of the young generation to continue their life and way of life in the socio-cultural context. Therefore, every pluralistic society in modern times always prepares its citizens who are selected as educators for the sake of continuity (regeneration) of each society concerned. Various problems in education, if can not be eliminated at all, at least it needs to be minimized, so the problems that arise do not interfere with the achievement of general educational goals, or specific learning objectives. Furthermore, this study discusses the analysis of factors that affect student learning outcomes in mathematics courses, especially UPI students "YPTK" Padang with the aim to examine the factors that affect student learning outcomes in the mathematics course itself. This research was conducted through field study by distributing questionnaires to students as the object of his research. The method of analysis used is the regression model in this case with the discussion of the magnitude of the coefficient of determination, simultaneous testing, partial testing and normality of research data. The results obtained that the motivation, ability or expertise possessed in the understanding of mathematics mathematics is a factor that greatly affect the results of learning. This is proven, where more than 50 percent of students are able to get good grades from the mathematics learning. Meanwhile, from both simultaneous testing and partial testing showed a fairly strong level of significance. However, even so for the future as an educator (lecturer) still provide motivation, inspiration and tricks or tips for mathematics courses are able to continue to be liked, developed in the form of modeling that is easier to understand not a complicated or boring subject for some students.

Keyword: Education, Expertise, Motivation, Learning Outcomes

INTRODUCTION

Humans are creatures that wrestle intensely and education. That is why humans are nicknamed as animal educandum and animal educandus all at once, ie as educated creatures and educational creatures. In other words, human beings are creatures that are always involved in the educational process, whether done either done to others or to themselves. The process of education is a universal activity in human life, because wherever and whenever in the world there is education.

Although education is a common phenomenon in every society's life, the different philosophies and worldviews held by each nation or society and even individuals lead to differences in the organization of such educational activities. Thus, in addition to being universal, education is also national. Its national character will color the organization of the nation's education.

Education as a human effort is the best cultural aspect and result that every generation of human beings can provide for the benefit of the young generation in order to continue their life and way of life in a socio-cultural context. Therefore, every pluralistic society in modern times always prepares its citizens who are selected as educators for the sake of continuity (regeneration) of each society concerned. Various problems in education in education if it can not be eliminated at all, at least it needs to be minimized, so the problems that arise do not interfere with the achievement of general educational goals, or the purpose of learning in particular.

According Sukardjo (2009: 3) one way to be able to eliminate or minimize the problems that arise is based on educational theories. Thus, the mastery of educational fundamentals is expected to be a horizon that provides provision for education actors in order to minimize education problems and solve various educational problems in general, and learning in particular.

According to the Law of National Education System no. 20 year 2003 Article 1 paragraph 1, education is a conscious and planned effort to create an atmosphere of learning and learning process so that learners actively develop their potential to have spiritual spiritual strength, self-control, personality, intelligence, noble character, and skills needed by him , Society, nation and state. In education contained a business or activity done with a conscious and full of planning that aims to develop all the potential that existed in the learners.

Educational activities include several components. These components can not be separated from each other and must go hand in hand to achieve educational goals. However, before understanding some of these important components, we must explore more deeply about the theories and concepts of education itself.

Education Theory and Concept of Education

1. Education Theory

Educational theory can be seen from 3 aspects namely the form, content, and basic assumptions (Mudyahardjo, 2001: 91-92). In terms of form, the theory of education is a system of concepts that are integrated, explanatory, and predictive of educational events. The content of an educational theory is a system of concepts about educational events. This concept exists that acts as the assumption or starting point of education and there is a role as a definition or description that states meaning. Meanwhile, the main assumptions of education include:

a. education is actual, meaning that education starts from the actual conditions ofindividuals who study in the environment learning;

b. education is normative, meaning education is aimed at achieving good things or good, norms, and dams;

c. education is a process of achieving goals, meaning education in the form of a series of activities stems from the actual conditions and individuals who learn, focused on the achievement of the expected individual.

Classification of Education Theory

Mudyahardjo (2001: 100-110) clarified the theory of education into a general theory of education and a special theory of education. Here is an explanation of both theories.

1. General Education Theory

a. The General Theory of Prescriptive Education

It is a set of concepts about the whole aspects of education aimed at explaining how educational events should be organized. The theory belonging to this group is the Philosophy of Education.

b. General Theory of Descriptive Education

It is a set of concepts about the whole educational aspect that aims to explain how educational events have been and are happening in society. Educational theories included in this group are:

a. Education abroad or international education

b. Comparative education or comparative education

c. Historical education or educational history

2. Special Education Theory

a. The Special Theory of Prescriptive Education

Is a set of concepts about an educational aspect aimed at explaining how something should be done. The theory belonging to this group is Educational Technology.

b. The Special Theory of Prescriptive Education

Is a set of concepts about an educational aspect aimed at explaining how educational events have been, are, and are expected to occur in society. Theories that belong to this group are the educational sciences, among others:

1. Pedagogic: Scientific studies of the educational
   situation include the educational component,
   namely: educational goals, learners, educators, educational methods, educational content,
   educational environment, and educational infrastructure facilities.
2. Orthopedagogic: a scientific study of the educational situation for children and adolescents with special needs, which bear physical, mental, or behavioral disorders.
3. Educational Psychology: the scientific study of individual aspects of education.
4. Sociology of Education: scientific study of social aspects in education.
5. Science of Demographic Education/ Population: Scientific study of demographic aspects in education or human population relations with the environment.
6. Andragogy: a scientific study of helping adults
   learn.
7. Anthropology of Education and Ethnography
   Education: the scientific study of aspects of culture in education.
8. Economics Education: the scientific study of
   economic aspects in education.
9. Educational Politics: the scientific study of the political or wisdom aspect in education.

10. Educational Administration Sciences: scientific studies on the aspects of how to organize the organization of education.

Concept of Education

Mudyahardjo (2001: 3-16) divides the definition of education into 3, namely broad definition, narrow, and limited area. This can be explained as follows.

1. Broad Definition

Education is life. Education is all learning experience that takes place in all environments and throughout life. Characteristics of this concept, namely: (a) lifetime education duration as long as there are environmental influences; (b) the educational environment can either be created or exist by itself; (c) the activity may be inadvertent or programmed; (d) the educational objectives are not predetermined, but are contained in each learning experience, not limited to, and equal to the purpose of life; (e) supported by romantic and pragmatic humanists.

2. Narrow Definitions

Education is school. Education is a learning that is held in schools as a formal educational institution. Characteristics of this concept, namely: (a) limited education period; (b) the educational environment is specially created; (c) educational content arranged programmatically in the form of curriculum, teacher-oriented educational activities, and scheduled activities; (d) educational objectives are defined by outsiders, limited to the development of particular abilities, aimed at preparing for life; (e) supported by the behaviorists.

3. Definition of Limited Area

Education is a conscious effort undertaken by family, community and government, through counseling, teaching and or training activities, taking place in school and out of school throughout life, to prepare learners to play a role in various environments appropriately in the future which will come. Characteristics of this concept, namely: (a) the lifetime of education that its activities do not take any arbitrary, but at a certain moment; (b) takes place in a part of the environment

2nd *International Seminar on Education 2017*
Empowering Local Wisdom on Education for Global Issue
Batusangkar, September 05-06-2017

{cultural environment}; (c) in the form of formal, informal, and informal education; (d) the purpose of education is part of the purpose of life that is supportive to the achievement of the purpose of life; (e) supported by realistic humanists and critical realism.

According to Miarso (2004: 9-10), there are some basic conceptions of education, namely:

1. Education is essentially an activity undertaken

   by a learner resulting in a change in his / her personality.
2. Education is a process that lasts a lifetime.
3. Education can take place anytime and

   anywhere, ie at the time and place in accordance

   with the circumstances and needs of students.
4. Education can take place independently and can

   take place effectively with regular monitoring and ownership.
5. Education can take place effectively within a

   homogeneous group, heterogeneous group, or

   individual.
6. Learning can be obtained from who and what,

   whether deliberately designed or taken benefit.

Understanding Motivation

According to Nana Syaodih Sukmadinata (2003: 64) that "motivation is a condition formed from various driving forces in the form of insistence, motives, needs and desires." Motivation is a psychological process that reflects the interaction between soul, attitude, needs, perceptions and decisions in One's self.

Sumadi Suryabrata (2010: 70) also argues that "motive is a person's personal circumstance that encourages individuals to perform certain activities in order to achieve a goal." In other words, motivation is a state of the soul and a mental attitude that energizes and encourages people to Doing an activity.

According to Mc Donald (Abdul Hadis, 2008: 29) "Motivation is a change of

energy in a person characterized by the emergence of feeling and preceded by a response to the existence of a goal". From the notion put forward by Mc. Donald contains three important elements, namely:

1. That motivation initiates the occurrence of

   energy changes in each individual human being
2. Motivation is characterized by the emergence of

   a sense or feeling, affection someone.
3. Motivation will be stimulated because there is a

   purpose.

So the motivation in this case is actually the response of an action, that is the goal. Similarly, as stated by Hamzah B. Uno (2009: 5) that "motivation is a force that drives someone to do something to achieve the goal". These forces are essentially stimulated by the existence of various needs, such as (1) the desire to be fulfilled; (2) behavior; (3) purpose; (4) feedback. This interaction process is called the basic motivation process, can be described by the process model as shown below.
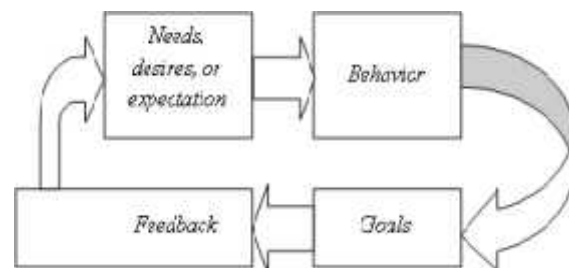
Sumber: Hamzah B. Uno (2009:5)

Types of Motivation

From the above definition, it can be seen that motivation occurs when a person has the desire and willingness to perform an activity or action in order to achieve certain goals.

In essence that motivation is a psychological condition that drives someone to do something.

The types of motivation put forward by different experts. As according to Nana Syaodih Sukmadinata (2009: 63) motivation based on its nature can be distinguished on

three kinds, namely:
1. Motivation of fear or fear motivation, the individual does something because
2. Intensive motivation or intensive motivation,
   the individual does the deed to get an incentive.
3. Attitude or attitude motivation or self motivation. This motivation is more intrinsic,
   emerging from within the individual, in contrast
   to the two previous motivations that are extrinsic and come from outside the self.

Meanwhile, according to Sardiman (2008: 86), motivation can be seen from the basis of its formation, namely:
1. Inborn motives are motives that are brought from birth, so the motivation exists without being learned, such as the drive to eat, the drive
   to drink, the drive to work, to rest, the sex drive.
2. The motives studied are the motives that arise
   from being learned, such as the drive to learn,
   the impulse to teach.

Then Hamzah Uno (2011: 4) states that "from the point of the source that gives rise to the motives are distinguished two kinds, namely intrinsic motives and extrinsic motives." Intrinsic motives are the motives that arise on the self-consciousness of the individual and does not require external stimuli. While extrinsic motive is a motive that arises because of the stimuli from the outside, such as a conducive atmosphere, rewards and punishment or reward.

From the description above, it can be explained that the motivation can arise from yourself or from outside himself. So, here the role of teachers is how to learners can generate motivation to learn.

Understanding Ability

Ability is the ability or potential of an individual to master the skill in performing or performing various tasks in a job or an assessment of one's actions.

Group of Ability Factors

1. Intellectual Ability

Intellectual ability is the ability needed to perform various mental activities-thinking, reasoning, and solving problems. Individuals in most societies place intelligence, and for the right reasons, at a high value. Intelligent individuals are also more likely to be leaders in a group
The seven most frequently mentioned dimensions that shape intellectual ability are:
1. Numerical Intelligence
2. Verbal Understanding
3. Perception Speed
4. Inductive Rasoning
5. Deductive Reasoning
6. Spatial Visualization

2. Physical Ability

Physical Ability is the ability of tasks that demand stamina, skill, strength, and similar characteristics. Research on the various requirements required in hundreds of jobs has identified nine basic capabilities covered in the performance of physical tasks. Each individual has a basic ability is different.

Learning Results Indicator Components

Learning outcomes are things that can be viewed from two sides of the student side and from the teacher side. From the student side, learning outcomes are a better level of mental development when compared to before learning. The level of mental development is manifested in the types of cognitive, affective, and psychomotor domains. While from the teacher side, the result of learning is when the completion of learning materials. The results can also be interpreted is that if someone has learned will change the behavior of the person, for example from not knowing to know, and from not understand to understand.

Learning outcomes are a culmination of the learning process. The learning outcomes occur mainly due to teacher evaluation. Learning outcomes can be the impact of teaching and impact accompaniment. Both effects are beneficial for teachers and students. According to Woordworth (in Ismihyani 2000), learning outcomes are a change in behavior as a result of the learning process.

Woordworth also said that learning outcomes are actual abilities that are measured directly. The results of this learning measurement will eventually find out how far the educational and teaching objectives have been achieved.

From the explanation of some experts, it can be concluded that learning is essentially a process of changing student behavior in the talents of experience and training. This means that the purpose of teaching and learning activities is a change in behavior, whether involving knowledge, skills, attitudes, and even covering the whole aspect of the person. Teaching and learning activities such as organizing learning experiences, assessing the process and learning outcomes, are included in the scope of teacher responsibilities in achieving student learning outcomes.

Based on the theory of Bloom's Taxonomy the learning outcomes in the framework of study are achieved through three categories of domains including cognitive, affective, psychomotor. The details are as follows:

1. Cognitive Sphere

   With regard to the intellectual learning outcomes consisting of six aspects of knowledge, understanding, application, analysis, synthesis and assessment.

2. Affective Sphere

   With regard to attitudes and values. Affective domain includes five levels of ability to accept, answer or react, assess, organization and characterize with a value or value complex.

3. Psychomotor domains

   Includes motor skills, manipulation of objects, neuromuscular coordination (linking, observing).

   The types of cognitive learning outcomes are more dominant than affective and psychomotor because they are more prominent, but psychomotor and affective learning outcomes should also be part of the assessment results in the learning process in school.

   Learning outcomes are used by teachers to be a measure or criteria in achieving an educational goal. This can be achieved if the students already understand learning by accompanied by better behavioral changes.

Howard Kingsley divides 3 kinds of learning outcomes:
a. Skills and Habits
b. Knowledge and Understanding
c. Attitudes and Goals

This opinion of Horward Kingsley shows the result of changes from all learning process. The results of this study will stick to the students themselves because it has become part of the student's life.

Based on the above understanding it can be synthesized that the learning outcome is a final assessment of the process and the introduction that has been done repeatedly. And will be stored for a long time or even will not disappear forever because the results of learning to participate in the form of personal individuals who always want to achieve better results so that will change the way of thinking and generate better work behavior.

While the intent of the indicator is a measurable and / or observable behavior to show the achievement of certain basic competencies that become the reference of the subject assessment.

Basically, the disclosure of learning outcomes encompasses all aspects of psychology, in which aspects gradually change along with the experience and learning process undertaken by students. But it can not be that easy, because sometimes for the affective domain is very difficult to see the results of learning. This is because the learning outcomes are non-palpable. Therefore, what teachers can do is take a snippet of behavioral change as a result of learning that is considered important and is expected to reflect the results of the learning, both from the aspects of creativity (cognitive), aspects of taste (affective), aspect of psychological (psychomotor).

The following are presented operational words that can be used for indicators of learning, whether involving aspects of cognitive, affective, and psychomotor.

To select the operational words in the indicator can see the list of operational words debimana mentioned above. However, teachers can also add other operational words

to formulate indicators according to the characteristics of learners, regional needs and conditions of each educational unit. Then after the indicator of learning outcomes of basic competencies to be taught has been identified, then developed in the sentence indicator which is the characteristic of basic competence.

Understanding Mathematical Concepts

Mathematics is a universal science that underlies the development of modern technology, has an important role in various disciplines and develop the human mind power. Rapid development in the field of information and communication technology today is based on the development of mathematics in the field of number theory, algebra, analysis, discretionary theories of opportunity and mathematics. To master and create technology in the future requires a strong mastery of mathematics from an early age.

Given the importance of this mathematical role, efforts to improve mathematical teaching systems have always been a concern, especially for governments and mathematics education specialists. One of the real efforts that has been made by the government is seen in the improvement of the mathematics curriculum. The enactment of Law Number 20 of 2003 on National Education System and Government Regulation Number 6 of 2007 on National Education Standards brings implications for the system and implementation of education including curriculum development and implementation.

In the process of teaching, the most important thing is the achievement of the goal is that students are able to understand something based on learning experience. This understanding ability is very fundamental, because with understanding will be able to achieve the knowledge of the procedure.

According Purwanto (1994: 44) understanding is the level of ability that expects students to understand the meaning or concepts, situations and facts that know. While Mulyasa (2005: 78) states that understanding is the cognitive and affective depth possessed by individuals. Furthermore Ernawati (2003: 8) suggests that what is meant by understanding is the ability to grasp such notions as being able to express a material presented in another form that can be understood, able to interpret and be able to classify it.

According to Virlianti (2002: 6) suggests that understanding is a conception that can be digested or understood by learners so that they understand what is meant, able to find ways to express the conception, and can explore the possibilities associated.

Based on the understanding above understanding, the authors conclude understanding is a systematic way of understanding and telling about something he gained.

Each mathematics learning material contains a number of concepts that students should like. Understanding the concept According to Ruseffendi (1998: 157) is an abstract idea that allows us to classify or classify the object or event is an example and not an example of the idea.

Understanding the concept is very important, because with the mastery of the concept will facilitate students in learning mathematics. In every learning cultivated more emphasis on mastery of the concept so that students have a good basic foundation to achieve other basic skills such as reasoning, communication, connection and problem solving.

Conceptualization is the level of student learning outcomes that can define or describe some or define instructional materials using their own sentences. With the student's ability to explain or define, then the student has understood the concept or principle of a lesson even though the given explanation has a sentence arrangement that is not the same as the given concept but the same meaning.

According to Sanjaya (2009) said what in the intent of understanding the concept is the ability of students in the form of mastery of a number of subject matter, where students not only know or remember a number of concepts learned, but able to re-express in another form that is easy to understand, Applying concepts that fit their cognitive structure.

2nd *International Seminar on Education 2017*
Empowering Local Wisdom on Education for Global Issue
Batusangkar, September 05-06-2017

Based on the description above, the authors can conclude the definition of conceptual understanding is the ability of a person to reiterate the knowledge obtained in the form of speech and writing to people so that other people really understand what is delivered.

Given the importance of understanding the concept, According to Hiebert and Carpenter (in Dafril: 2011). Stressed teaching has at least five advantages:

1. Understanding generative means that if a person has understood a concept, then that knowledge will lead to another understanding because of the interconnection between knowledge that the student has so that any new knowledge through the relationship with the existing knowledge before.

2. The understanding of spurred memory means that a well-understood knowledge will be organized and linked effectively with other knowledge through organizing schemes or knowledge more efficiently within the cognitive structure of thinking so that knowledge is easier to remember.

3. Understanding reduces the number of things that must be remembered means the fabric that is formed between the knowledge of one another in the cognitive structure of students who study it with full understanding is a very good network.

4. Understanding improve the transfer of learning means understanding of a mathematical concept will be obtained students who actively find similarity of the various concepts. This will help students to analyze whether a particular concept can be applied to a particular condition.

5. Understanding affects the beliefs of students means that students who understand math well will have positive beliefs which will further help the development of mathematical knowledge.

According Sanjaya (2009) the indicators contained in the understanding of the concept include:

1. Able to verbally predict what has been achieved

2. Be able to present the mathematical situation into various ways and know the difference,

3. Be able to classify objects based on whether or not fulfilled the requirements that form the concept,

4. Able to apply the relationship between concepts and procedures,

5. Able to provide examples and examples of cons of the concepts studied,

6. Able to apply the concept algorithm,

7. Be able to develop the concept that has been studied.

RESEARCH METHODS

1. Research Objects

This study, the authors choose the object of research is the City of Padang Panjang. To obtain data through BPS (Central Bureau of Statistics) and other literatures related to the Analysis of Factors Affecting Student Learning Outcomes in Mathematics Courses (Case Study: UPI YPTK Students).

2. Research Variables and Operational Definition

The variables used in this research are:

1. Dependent or Bound Variable (Y)

As Dependent Variable in research is Learning Outcome with Case Study: Student UPI YPTK.

2. Independent Variables (X1 and X2)

In this case used as an Independent Variable is Expertise or Ability and Motivation.

3. Data Types

As the type of data from the research that the authors do is the primary data is data obtained From field studies through questionnaires with interview techniques.

4. Analysis Method

To examine the Analysis of Factors Affecting Student Learning Outcomes on the Eyes Mathematics Lecture (Case Study: UPI YPTK

Student) with the following regression.
model:

$$Y = a + b_1X_1 + b_2X_2 \quad ....(1)$$

Where:
Y = Learning Outcomes
X_1 = Expertise or Ability
X_2 = Motivation
a   = Constants
b   = Regression Coefficient for each Independent Variable (Expertise or Ability and Motivation)

5.Hypothesis Testing

1. Testing t (t-test)

That is to test the regression relationship separately. The test is conducted to see the significance of each variable separately (partial) to the dependent variable with the hypothesis provisions, as follows (Damodar Gujarati, 2006):

$$t = \frac{\text{S}n}{s\text{S}n} \quad ....(2)$$

t = Calculated t value
Sβn   =   Standard   Error Respectively Variable
βn = Regression Coefficient
      Respectively   Variable
      For this test used hypothesis, as follows:
Ho: βi = 0, where: (there is no influence of
    independent variable to the dependent variable/regression coefficient is not significant)
Ha: βi ≠ 0, where: (there is the influence of
    independent   variables   on   the dependent
    variable/regression   coefficient significant)
The test is done by comparing the t-count values obtained from the coefficient table with the error rate of 5% (α = 0,05) and the degree of freedom (df) of (n-k) with the provision of decision making as follows:
- If t-count <t-table, then Ho accepted and Ha rejected (not significant)
- If t-count > t-table then Ho is rejected and Ha accepted (significant)

2. Testing F (F-test)

That is testing done by comparing the value of F-count with F-table. This test aims to see whether or not the influence of all independent variables on the dependent variable or testing simultaneously. The value of F-test or F-arithmetic is obtained by using the model, as follows (Damodar Gujarati, 2006):

$$F = \frac{R^2/k - 1}{(1 - R^2)/(n - tk)} \quad ....(3)$$

Where:
F   = F Value Calculated
R^2 = Coefficient of Determination
k = Number of Variables
n = Number of Year Observations

The value of F-arithmetic resulting from the above calculation (based on the ANOVA table) with an error rate of 5 percent and the degree of freedom (df) of (n-k), (k-l): df1 = (k-l), df2 = (n-k) with the provisions of decision making, as follows:
- If F-count <F-table, then the null hypothesis
    (Ho) is accepted and alternative hypothesis
    (Ha) is rejected, meaning free variable has no
     influence or not significant to the
     dependent variable.
- If F-arithmetic> F-table, then Ho is rejected
    and Ha accepted which means free variable
    has   influence   and   significant   to dependent
    variable.

3. Testing R^2

Testing R^2 or coefficient of determination useful to see how big the proportion of the contribution of all independent variables to the rise and fall of the value of the dependent variable, which is seen from the table Model Summary

Results of testing the coefficient of determination
Reflecting measurements:
- It is the determination of a regression line that is assigned to a group of data of the result of observation (goodness of fit), where the greater the value of R^2 the better the result of a regression line, and the smaller the R^2 value the worse the result of the regression line. The value of R^2 is $0 \leq R^2 \leq 1$. If $R^2 = 0$ or close to zero, then between independent variable and independent variable is not related and vice versa if $R^2 = 1$, then the independent variable and the independent variable are perfect.
- It is the measurement of the proportion of the number of variations of the dependent variable described by the regression model or the amount of the contribution of the independent variable to the ups and downs of the dependent variable. Therefore, in this study the number of independent variables more than two (2), then used Adjusted R Square.

Tabel.1   Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,849[a]	,721	,715	2,78086

a. Predictors: (Constant), X2, X1
b. Dependent Variable: Y

Based on Table 1 above that the variance of the ups and downs of the influence of Expertise or Ability and Motivation on Learning Outcomes Mathematics Courses especially in UPI YPTK students obtained by 71.5 percent while the rest of 28.5 percent is another factor outside the model of this study. The model in question is:

$$Y = a + b_1X_1 + b_2X_2$$
$$Y = 8,379 + 0,030X_1 + 0,406X_2$$

Tabel.2   ANOVA[b]

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1934,634	2	967,317	125,087	,000[a]
Residual	750,116	97	7,733		
Total	2684,750	99			

a. Predictors: (Constant), X2, X1
b. Dependent Variable: Y

Table 2 above shows that simultaneously there is a positive and significant influence between Expertise or Ability and Motivation on Learning Outcomes of Mathematics Courses especially UPI YPTK Students, where the results obtained F-count value = 125.087 with a significance of 0.000 compared With F-table = 3.09 with alpha = 0.05.

2nd *International Seminar on Education 2017*
Empowering Local Wisdom on Education for Global Issue
Batusangkar, September 05-06-2017

Tabel.3. Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	8,379	2,446		3,426	,001
X1	5,832	2,873	10,048	2,029	,000
X2	,406	,040	,886	10,274	,000

a. Dependent Variable: Y

The results shown in Table 3 above that partially (each / separate) shows the influence of Expertise or Ability and Motivation on Student Results in Mathematics Subjects, especially UPI YPTK Students, where each obtained t-count results X_1 = 2,029 And t-arithmetic X_2 = 10,274 whereas the significance of each is 0,000 and 0,000.

Gambar.1

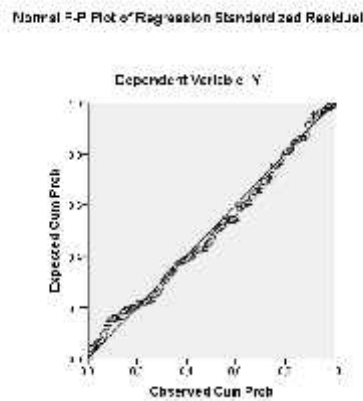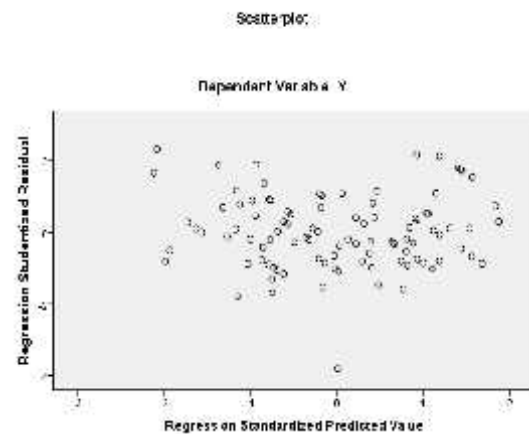
Figure 1 above shows that the data from this research is normally distributed, where the points in Figure 1 above approach the diagonal line.Likewise with Fig.2, (shown in the figure below), where the points on the image are spreading and not forming a shape.

Gambar.2

CONCLUSION

1. Coefficient Testing Determination, where the variance rise and fall of influence Skills or Ability and Motivation of Learning Outcomes Mathematics courses, especially on UPI YPTK students obtained by 71.5 percent while the remaining 28.5 percent is another factor outside the model of this study. This means that enough influence between the two independent variables to the dependent variable.

2. Simultaneous Testing, that simultaneously there is a positive and significant influence among the Expertise or Ability and Motivation to the Results of Mathematics Learning Course especially YPTK UPI Students, where the results obtained F-

2nd *International Seminar on Education 2017*
Empowering Local Wisdom on Education for Global Issue
Batusangkar, September 05-06-2017

count = 125.087 with a significance of 0.000 compared With F-table = 3.09 with alpha = 0.05.

3. Partial Testing, partially (each / separate) shows the influence of Expertise or Ability and Motivation on Student Results in Mathematics Course, especially UPI YPTK Students, where each obtained t-count results X1 = 2.029 and t-count X2 = 10,274 while the significance of each is 0,000 and 0,000.

REFERENCE

[1] Damodar N. Gujarati, *"Dasar-dasar Ekonometrika"*, Penerbit Erlangga, Jakarta, 2006.

[2] Daryanto, *"Evaluasi Pendidikan"*, Jakarta: Rineka Cipta, 2007.

[3] Dimyati dan Mudjiono, *"Belajar dan Pembelajaran"*, Jakarta: Rineka Cipta, 1999.

[4] Hadis, Abdul, *"Psikologi dalam Pendidikan"*, Bandung: Alfabeta, 2008.

[5] Hamalik, Oemar, *"Proses Belajar Mengajar"*, Bandung: Bumi Aksara, 2006.

[6] Mulyasa, E, *"Kurikulum Tingkat Satuan Pendidikan"*, Bandung: PT.Remaja Rosdakarya, 2006.

[7] Sardiman A.M, *"Interaksi dan Motivasi Belajar Mengajar"*, Jakarta: Raja Grafindo Persada, 2008.

[8] Singgih Santoso, *"Menguasai SPSS 22: From Basic to Expert Skills"*, Penerbit Elex Media Komputindo, Jakarta, 2015.

[9] Sudjana, Nana, *"Penilaian Hasil Proses Belajar Mengajar"*, Bandung: PT. Remaja Rosdakarya, 2006.

[10] Sukmadinata, Nana Syaodih, *"Landasan Proses Pendidikan"*, Bandung: Remaja Rosdakarya, 2003.

[11] Suryabrata, Sumadi, *"Psikologi Pendidikan"*, Jakarta: Grafindo Persada, 2010.

[12] Syah, Muhibbin, *"Psikologi Belajar"*, Jakarta: PT. Raja Grafindo Persada, 2006.

[13] Ukas, Maman, *"Manajemen (Konsep, Prinsip dan Aplikasi)"*,. Bandung: Agnini, 2006.

[14] Uno, Hamzah B, *"Teori Motivasi dan Pengukurannya"*, Jakarta: Bumi Aksara, 2009.