
Analysis of Factors Affecting Economic Achievements of High School Students SMA Negeri Kecamatan Koto Tengah Kota Padang Sumatera Barat

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ABSTRACT

This study aims to find the factors that affect the economic achievement of high school students SMA Negeri Koto Tengah Subdistrict Padang. The population in this study were all students of SMA Negeri in Koto Tengah Subdistrict namely SMAN 7 Kota Padang, SMAN 8 Kota Padang and SMAN 13 Kota Padang, sample determination using proportional random sampling method with 257 respondents. Analyzer used is Factor Analysis and Multiple Regression. The result of the research shows that there are three factors that influence student achievement such as (a) Teaching Instrument factor, (b) Personal ability factor, (c) Social Support factor. Of the three factors that affect student achievement of SMA Negeri Kecamatan Koto Tengah Padang , the dominant factor that has a big influence is the Teaching Instrument factor. The result of multiple regression analysis showed that from three factors have a significant effect on student achievement that is with the acquisition of sig <0,05. It can be concluded that the creativity of teachers, the understanding of teacher materials, the completeness of the means of learning infrastructure, learning references and school atmosphere are the factors that most influence the economic achievement of students of SMA Negeri Koto Tengah Subdistrict, Padang West Sumatra.

Keywords: *Learning Achievement Factor Analysis*

Introduction

Life in the era of globalization demands a reliable quality of human resources in order to survive in a life full of competition. Efforts that can be done to realize the quality of reliable human resources is through the world of education. This is because the world of education has a very strategic role to print human resources that are ready to face free competition.(Narwato, 2013)

Education plays a very important role to guarantee the survival of the nation and

state, because along with the times that always demanded human to master the science and technology, an effort of improvement always done continuously in order to get better quality, especially in education. The main goal in the world of education is as an investment, which is preparing human resources in accordance with the needs and expectations of the future. That is why the world of education is required to provide a more careful

response to the changes that are taking place in the community.

Therefore, improvement and refinement of education is preferred for educational outcomes to achieve the right targets. In order to achieve a satisfactory learning achievement required the learning process. The learning process that occurs in the individual is important because through learning, the individual recognizes his environment and adapts to the surrounding environment.(Anam, 2013)

Learning achievement is the result of one's achievement in the field of skills knowledge, and the behavior shown by the numbers given by the teacher. There are many factors that influence student achievement. These factors are classified into internal factors that are factors that are sourced from within the student and external factors are factors that come from outside students(Adjani, 2014)

Student achievement is a reflection of the potential of the students themselves are influenced by the quality of teaching and learning process (PBM). In the minimum PBM there are three aspects that are very influential namely the quality of teaching staff (teachers), curriculum and facilities and infrastructure including support laboratories. Student achievement can be seen from the value of learning outcomes that measure students academically. The value of learning outcomes is influenced by the quality of teachers who are measured through the level of formal education is completed, mastery of teaching methods and mastery of taught material. Student achievement can also be seen from achievements in other fields such as sports, arts or music, language and others.

The phenomenon of low student achievement on the one hand has a good

quality of input is allegedly caused by factors other than the factor of personal ability (quality of human resources) of the student. These factors may include non-supportive social environment, quality of teaching staff, support facilities, difficult access to referrals, and limited support and supervision from parents.

Many factors that influence the acquisition of student learning outcomes. Considering that students are learners with some characteristics, self-directed and self-directed, goal-oriented, have accumulated basic life experiences and knowledge, are oriented to relevance, have pride, self-esteem and ego that can pose a risk if not respected. So there are internal and external factors that affect student achievement.

According to Slameto (2010: 54), there are two factors that affect the learning achievement of internal factors and external factors. Internal factors include physiological factors and psychological factors. Physiological factors related to physical or physical, such as hearing and sight. Psychological factors related to the soul and emotions of adults themselves, such as the level of intelligence, motivation, attention, thinking, memory, and review. While external factors consist of family environment and learning environment. The family environment consists of home atmosphere, family economic condition and parental attention. The learning environment is related to what is around the learning process, both within the layout and outside the layout (Sujarwo, 2009: 34). So internal factors are the factors that affect student achievement that comes from within students while external factors are factors that come from outside the student self.

According Syah (2010: 65) factors that affect student academic achievement is divided into three namely internal factors, external factors, and learning approach factors. Internal factors consist of physiological aspects (nutritional status, health, and breakfast habits) and psychological aspects (intelligence, attitude, talent, interest, and motivation). External factors consist of the social environment (father's education, mother's education, the economic condition of parents, teachers, friends, and society) and non-social environment (school environment and living environment).

The result of research Kusumastuti (2010) shows that the high level of student achievement is also related to education level and income level of parents. Due to the high level of education and income levels, parents are expected to give attention and care to the students' learning activities. They will also be able to meet student learning facilities and other school fees, which in turn can motivate students to improve their learning achievement. Conversely with the low level of education and low income level of parents, in addition to reducing the attention and concern of parents to the learning activities of students will also be able to reduce the needs or facilities of student learning and other school costs. So that will reduce the motivation to learn which in turn will reduce student achievement. Meanwhile, another study conducted by Yuniah (2007) with CHAID method (Chi-Square Automatic Interaction Detection), it is known that the factors that affect the academic achievement of UAN value, ownership, learning method, gender, friends, and parent jobs.

Therefore, based on the above explanation, researchers are interested to explore the

factors that affect the economic achievement of students of SMAN Negeri Kota Padang. To the authors want to see from the dominant factors that affect student achievement and how its influence on learning achievement so that the title of this study is 'Analysis of Factors that Influence Student Learning Achievement High School SMA Negeri Koto Tangah Kota Padang

Methodology

This research is a survey research which is a research that gives explanation for a problem. This study takes the sample and population using questionnaires as a means of collecting data, so research that the authors do is included into explorative research. According Supranto (2006: 41) explorative research is a method that aims to find new ideas or relationships contained in a wide and complex problems. Besides, this study aims to find data as much as possible about the factors that affect students in obtaining economic learning achievement in students

1. Population The population in this study were all students of CLASS XI SMA Negeri in Koto Tangah Subdistrict namely SMAN 7 Kota Padang, SMAN 8 Kota Padang and SMAN 13 Kota Padang with population of 720 people
2. Sample, Sample as many as 257 students determined by proportional random sampling technique.

Analytical technique used to see the factors - factors affecting the economic learning outcomes of students of SMA Negeri Koto Tangah Subdistrict Padang by using descriptive analysis and factor analysis.

According to Idris (2004: 158) factor analysis is a type of analysis used to recognize the main dimension or regularity of a phenomenon. The general purpose of factor analysis is to summarize the information content of large numbers of variables into a number of smaller factors

After doing factor analysis, then to see the effect of new factors found, then the research continued by doing multiple regression analysis. Multiple regression analysis is used to predict the value of the dependent variable if the independent variable is at least two or more. According to Riduwan (2006: 155) "multiple analysis is an analysis tool that forecasting the value of the influence of independent variables on the dependent variable to prove the presence or absence of a functional relationship or causal relationship between two independent variables or more with one dependent variable". The test is done by t test and F test.

Result and Discussion

1. Test The Feasibility of analysis

Testing the feasibility of the analysis is done to see the fulfillment of the assumption as a condition for performing factor analysis. The criteria for determining whether a data can be analyzed are determined by Kaiser Mayer Olkin (KMO) adequacy sampling, Barlett 's Sphericity Test and Measure of Sampling Adequacy (MSA) scores. The Kaiser Mayer Olkin (KMO) test is required to see the adequacy of the analyzed sample. While the Barlett 's Sphericity Test test to see the normality of data to be analyzed. For the MSA test used to measure how precisely a predictable variable by another variable with a

relatively small error or MSA is defined as a measure to measure attribute validity.

From the results of data processing with SPSS for Windows version 15 obtained KMO test results (Kaiser-Meiser-Olkin) has a value of 0.713, which means that the sample is sufficient to be done factor analysis included in the middle category in accordance with the provisions of factor analysis dikemukakan by Idris (2010 : 160). For the value of Barlett 's Test of Sphericity of 5504,861 with a significant value of 0,000 which explains the data used has been fulfilled in normality so that factor analysis can be used in this study. While for the MSA value of each indicator shows the result that there is one indicator that has MSA value below 0.5 is the timely indicator with MSA value of 0.494.

2. Communalities

Communalities are the number of variants possessed by all the variables analyzed as the proportion of variants that can be explained by the factors formed (factor feasibility). Based on the results Communalities obtained the result that the role of the largest dimension is the spirit of learning factor with the value of Communalities of 0.819 or 81.9%. This means that the spirit factor in learning has a big role in determining student achievement of students of SMA Negeri Koto Tangah Subdistrict Padang In this spirit there is self-student of the lectures will give good results on student achievement. And the smallest role is in the family economic indicator of 0,566 or equal to 56,6%. This means that the family economy of students has not given a big role to the achievement of learning in school.

3. Factor extraction

Is an analysis used to see how the number of optimal factors in explaining the variance of 29 indicators that will form factors. To select the core factors, an indicator has an eigenvalue equal to greater than 1 (one). Eight factors that affect learning achievement if summed or cumulative has a variance value of 69.290%. Therefore, it can be concluded that the question items used in the study have contributed 69.290%, meaning that all factors formed in data estimation can contribute as a factor affecting the achievement of students of SMA Negeri Kecamatan Koto Tengah Kota Padang for 69.290% while the remaining 30.71% is again explained by other items or other instruments not used in this research model. So the ability of the 29 indicators used in determining factors that affect student achievement is good.

4. Matrix rotation analysis

To get the matrix factor can be seen with the acquisition value loading factor. The loading factor can explain how much it can measure the factors formed from each factor group. The loading factor coefficient has a large absolute value of 0.5. If the loading factor is a small indicator of 0.5, then the variable is removed from the model. The greater the value of the loading factor formed, the higher the indicator rank in the factor formed. From the results of the study note that there are eight optimal factors that formed from the extraction of indicators that have been done. Of the eight extractions formed then distributed indicators that make up eight extraction factors.

It can be seen that there is a distribution of indicators that make up the factor has not fulfilled the form of simple data structure. This is because not all factors have a fairly representative loading coefficient, so there are factors that are represented by many indicators but there are other factors that are not represented by any indicators. This is because factors (components) are correlated with many indicators or otherwise certain indicators are still correlated with many factors. To overcome this it is necessary to rotate the matrix to lead more clearly clustering and the amount of indicator contributions in the form factor. The indicator will be part of the factor when contributing (factor loading) > 0.50. In this study there are 4 indicators that have a loading factor of less than 0.5 so that should be removed from the model of learning strategy indicators with a value of 0.468, the spirit of learning with the value of loading 0.479, the diligent indicators in doing the task 0.472 and peer indicators of 0.342.

From the indicator numbering 25 is spread into 8 factors which are the indicators determine the factors that shape the students in obtaining learning achievement. Factors that have been produced or that have been reduced will be named, where the naming depends on the names that become one group on the interpretation of each analysis and other aspects.

Based on the results of factor analysis, there are indicators that qualify for further analysis and categorize into a factor with a new name and then proceed with multiple regression analysis to determine the influence of new factors found that affect student achievement of SMA Negeri Kecamatan Koto Tengah Kota Padang. The next step is to interpret and implement each of the factors described by the underlying

indicators which can be described as follows:

1. Teaching Instrument Factors

The first factor affecting student achievement is the instructional instrument factor that has eigenvalues value of 7.855. Indicators contained in this factor is the creativity of lecturers, the understanding of lecturer materials, the completeness of infrastructure facilities, learning references and school atmosphere. This factor can explain the variant variant by the variant of 28.053%. The name is based on the indicators included in this group, namely (1) Indicator of creativity, which is the ability to raise the spirit of student learning. In developing their creativity guru harus creative in designing and preparing subject matter, creative in classroom management, creative in the use of time, creative in the use of learning methods, and creative in developing evaluation tools (2) Indicators of understanding, which is the attitude gurudalam teach students to capture ability meaning and significance of what is learned, (3) Indicators of the availability of facilities and infrastructures, which are the tools (aids) available to assist with adequate teaching and learning activities, (4) Indicators of reference learning, which are the supporting books that will increase the students' insight more broadly, (5) the learning atmosphere factor in the school, which is a place of learning that creates a conducive learning climate.

When viewed from factor loadingnya indicators in this factor has a range loading factor from 0.545 to 0.847 this

means the correlation between indicators with factors ranging from 54.5% to 84.7%. Factor loading creativity gurudalam teaching the most determine the success of students of SMA Negeri Koto Tengah Subdistrict Padang in obtaining a good achievement with a value of 0.874, while the lowest value at school learning atmosphere factor of 0.545. This is also in accordance with the frequency distribution results performed with the level of respondent (TCR) on creativity gurusebesar 80.53%. It means that students have a good relationship with gurukarena exchanging thoughts and gurumemikan motivation for students to be more creative in school activities. While the level of attachment of respondents (TCR) in school atmosphere of 71.38. This means that the atmosphere of uncomfortable and noisy lecture reduce the attention of students in learning.

The researcher named this group of factors with teaching instruments because the instrument has a sense of being the tools that are prepared for use in doing something. In the process of teaching the instrument can be understood as any form of equipment either concrete or abstract that supports the teaching process. Therefore, creativity factors, understanding, facilities and infrastructure, reference, and school atmosphere can be classified as teaching instruments. The teaching instrument has an important role in improving student's learning achievement. Although the quality of personal human resources of a university is good, but when it is not supported with adequate facilities, easy access to reference, quality and

creativity of teachers, as well as a conducive school atmosphere then satisfying learning achievement will be difficult to achieve. Conversely, when the teaching instrument can be fulfilled, then the HR that was less good would be improved to have a better performance.

2. Personal Ability Factor

The second factor affecting student achievement is personal ability factor which has eigenvalues value of 2,635. Factors included in this indicator are the desire to compete, take the initiative in learning, cooperation and study preparation. These factors can explain the variant variant by variant by 9.409%. The naming is based on the indicators included in this group: (1) Indicators of desire to compete, which is the desire to obtain good IP, (2) Indicators take the initiative, which is the ability to make decisions and overcome difficulties in learning, (3) Indicator of cooperation, which is cooperation is a form of positive social interaction, where needed a sense of mutual understanding and cohesiveness in doing a cooperation, (4) Indicator preparation of student learning, which are conditions that precede learning activities.

When viewed from factor loadingnya indicators in this factor has a factor loading range from 0.571 to 0.749 this means the correlation between indicators with factors ranging from 57.1% to 74.9%. The loading factor of desire to compete in learning affects the success of the students of SMA Negeri Koto Tengah Subdistrict Padang in obtaining good learning achievement with a value of 0.749, while the lowest

score in the preparation of learning is 0.571. This is also in accordance with the frequency distribution results performed with the respondents' (TCR) level of competitiveness of 83.84%. Indicate that students have a desire to be superior to friends in terms of learning achievement, proximity to gurudan recognition of the learning environment. While the level of achievement of respondents (TCR) preparation for learning amounted to 66.69%.

This group of factors is called personal ability based on the consideration that factors of competitive desire, initiative, cooperation, and study preparation are factors derived from the personal ability of the student. Student's personal ability becomes the second most influential factor in improving learning achievement. High achievement is a manifestation of the learning desire, initiative, cooperation, and maximal learning preparation of the student's personal supported by adequate teaching instruments.

3. Social Support Factors

Factor three was given the name of social support factor in learning with eigen values value of 1.822. Indicators contained in this factor is the atmosphere of residence, the relationship with the family and the attention of parents. When viewed from the factor loading the most residential atmosphere factor determines the success of students in learning so that it affects the achievement of students' learning achievement SMA Negeri Koto Tengah Subdistrict Padang with loading factor of 0.845, followed by family relationship factor of 0.801 and parents

attention of 0.701. This factor can explain the variant's diversity of 6.507%. Acquisition of TCR learning atmosphere 77,90%, relation with family 88,64 and attention of parents equal to 91,49%.

The name is based on the indicators included in this group, namely (1) Indicators of residential atmosphere, which is a good place to live as well as a conducive learning place for students either at home, boarding-house or rented, (2) Indicator relationships with the family, which is harmonious harmony, mutual respect, caring, affectionate, devoted to the elderly who does not hamper students in learning, (3) Indicators of parental attention, which is a form of attention in prioritizing education in the family, to improve learning outcomes.

When the teaching instrument has been sufficient, the student's personal ability is quite good, then it is no less important in the effort to improve learning achievement is the support of the social environment of the student. Social support can come from family and parents as well as from the student's living environment. The results of this study are in accordance with the statement Hendikawati (2013-34) that the family environment is formed from the environment of residence and family environment conditions. In learning the students need a cool, clean and comfortable living environment. On the other hand the attention and good relationships of the family environment will determine the attitude and behavior of the child in the future (happy parents by realizing his ideals). Research conducted by Cumhur Erdem et al in 2007 states that family support will have

an effect on the achievement of student achievement. This is because the family is a source of social support for children in carrying out their activities. Parents who are indifferent to children and children do not find comfort in the family then this can lead to children less successful in learning.

After finding these eight factors, then the results of the study continued with multiple regression analysis to reveal and see in real terms how the influence of the eight new factors. the results of multiple regression analysis can be known through the termination coefficient value, F (simultaneous) and t test (partial). Here the results of the test coefficient terminated to test the magnitude of the influence of new factors found on student achievement SMA Negeri Koto Tengah Sub-district Padang City

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.711	.506	.492	.22062

From the table above, can be seen R Square = 0.506. meaning that the influence of the eight new factors found on the achievement of SMA Negeri Kecamatan Koto Tengah Padang is 50.6%, while 49.4% is determined by other factors not included in this study. Other factors that influence learning outcomes are teaching methods, endurance learning, financial literacy, student social status and others. From result of analysis obtained sig equal to 0,00. It is smaller than $\alpha = 0.05$, consequently Ho is rejected and Ha accepted. Means new

factors that have been found together have a significant effect on student achievement of SMA Negeri Kecamatan Koto Tangah Kota Padang.

Conclusion

1. Formed three factors that influence student achievement of students of SMA Negeri Koto Tangah Subdistrict Padang include (a) Teaching Instrument factors, the indicators contained in this variable are teacher creativity, teacher understanding, the availability of facilities and infrastructure, learning reference and atmosphere (b) Personal ability factors, the indicators contained in this variable are competitive desire, take initiative, cooperation and study preparation (c) Social Support factor, the indicators contained in this variable are the atmosphere of residence, family relationships and parental concerns
2. Of the three factors that affect learning achievement Economics Students SMA Negeri Koto Tangah Subdistrict Padang, the dominant factor that has a major influence is the factor Instrument. The factors formed contributed a cumulative percentage of variance of 69.29%, while the remainder of 30.71% was explained by other indicators not included in the indicators that the researchers carefully examined.

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