

**CONTRIBUTION OF INTRINSIC AND EXTRINSIC MOTIVATION
TOWARD MATHEMATICS STUDENTS INTEREST CLASS VIII IN
SECONDARY SCHOOL 2 OF KARTASURA IN 2015/2016 ACADEMIC
YEAR**



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By:

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For:

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**KONTRIBUSI MOTIVASI INTRINSIK DAN EKSTRINSIK TERHADAP
MINAT BELAJAR MATEMATIKA SISWA KELAS VIII SMP 2
KARTASURA TAHUN AJARAN 2015/2016**

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ABSTRAK

Norliza Binti Samidjan /A410112012; **Kontribusi Motivasi Intrinsik dan Ekstrinsik terhadap Minat Belajar Matematika SMP Negeri 2 Kartasura Tahun Ajaran 2014/2015**. Skripsi. Fakultas Keguruan dan Ilmu Pendidikan, Universitas Muhammadiyah Surakarta. Desember, 2015.

Tujuan penelitian ini yaitu untuk menguji kontribusi motivasi intrinsik terhadap minat belajar matematika siswa, menguji motivasi ekstrinsik terhadap minat belajar matematika, Menguji kontribusi bersama antara motivasi intrinsik dan motivasi ekstrinsik terhadap minat belajar matematika. Penelitian ini merupakan penelitian kuantitatif-korelatif. Subyek penelitian ini yaitu 32 siswa kelas VIII SMP 2 Kartasura. Data dikumpulkan dengan metode angket dan dokumentasi, yaitu siswa harus mengisi seluruh pernyataan yang berhubungan dengan variabel-variabel penelitian ini. Data dianalisis dengan analisis regresi ganda. Hasil penelitian menunjukkan bahwa: (1) motivasi intrinsik memberikan pengaruh positif dan signifikan terhadap minat belajar matematika, (2) motivasi ekstrinsik memberikan pengaruh positif dan signifikan terhadap minat belajar matematika, (3) secara bersama-sama motivasi intrinsik dan motivasi ekstrinsik memberikan pengaruh positif dan signifikan terhadap minat belajar matematika. Sumbangan efektif yang diberikan motivasi intrinsik sebesar 37% sedangkan motivasi ekstrinsik sebesar 30%. Sumbangan relatif yang diberikan motivasi intrinsik sebesar 55% sedangkan motivasi ekstrinsik sebesar 45%.

Kata kunci : *motivasi intrinsik, motivasi ekstrinsik, minat belajar matematika*

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Abstract

The purpose of this study is to examine the contribution of intrinsic motivation to interest in mathematics learning, examine the extrinsic motivation to interest in mathematics learning, test the joint contribution of intrinsic motivation and extrinsic motivation to interest in learning mathematics. This research is a quantitative-correlative. The subjects of this study are 32 students class in Surakarta 8th Secondary School. Data were collected by questionnaire and documentation, the which students must fill out all statements related to the variables of this study. Data were Analyzed using multiple regression analysis. The results Showed that: (1) the intrinsic motivation provide a positive and significant effect on the interest in mathematics learning, (2) the extrinsic provide a positive and significant effect on the interest in mathematics learning, (3) jointly intrinsic motivation and extrinsic motivation give a positive and significant influence toward interest in learning mathematics. Effective contribution given by intrinsic motivation is 37%, while extrinsic motivation give 30%. Relative contribution given by intrinsic motivation is 55%, while extrinsic motivation give 45%.

Keywords: intrinsic motivation, extrinsic motivation, interest of mathematics learning

Introduction

The quality of education relates to the quality of students as the center point in the learning process is the student, especially in mathematics. Each student has a degree of willingness to learn different. Most students think that mathematics courses are difficult subjects and in the end they are lazy to learn. It is influenced by the motivation of the students themselves. In the classroom, a big problem for teachers and students is motivation. Teachers hope that students use their talents and time during the school day so that maximum learning objectives occur. Students, whether realized or not trying to use their potential to grow rapidly with their talents there. Unfortunately, the purpose of the teacher is often

different to what lies within the students that motivation does not develop even ignored (Djamarah, 2011: 1).

According Syaefullah (2012: 291) in psychology, motivation is defined as the power contained in man which can influence its behavior to do activities. In fact, the motivation to learn is not always arise in students. There are some students who have high motivation, there is also low. Therefore, teachers should be able to raise the motivation contained in students to achieve learning objectives. For students who already have the motivation, the teacher in charge to increase motivation. If the teacher can build student motivation to lessons taught, students will be interested in these subjects. Motivation is divided into two intrinsic motivation and extrinsic motivation (Djamarah, 2011: 149).

(Djamarah, 2011: 149) describes the motivation is intrinsic motives are active or function they do not need to be stimulated from the outside, because inside every individual has no urge to do something. Students who have intrinsic motivation tend to be people who are educated, knowledgeable, who have expertise in a particular field. Eager to learn is an activity that never deserted from the activities of the students who have intrinsic motivation. And was recognized by all parties, that learning is a way to get some knowledge. The impetus for the study comes on the need, which contains the obligation to become educated and knowledgeable. Thus, intrinsic motivation appears based awareness of the essential purposes, not just the attributes and ceremonial.

Intrinsic motivation has a strategic role in student learning activities. This motivation is very strong in nature because students learn on their own will not because others. So that students learn because they want to gain knowledge that much and want to be a smart student. The role of intrinsic motivation is to raise awareness for learning, such awareness can encourage students to carry out learning activities, ensure continuity of learning activities and provide direction and learning activities in order to achieve the goal so that it can proceed to a higher level (Winkel, 1991: 92).

Extrinsic motivation is the opposite of intrinsic motivation. Extrinsic motivation is the motives are active and functioning due to stimulus from the

outside. Extrinsic motivation to learn to say when the students put learning goals outside factors learning situations (Resides In some factors outside the learning situation). Students learn because it was about to reach the goal located outside the learned. For example, for achieving high rates, diplomas, degrees, honors, and sebagainya. Motivasi extrinsic necessary for students to learn. Teachers who successfully teaching is the teacher who knows how to generate interest students in learning, by making use of extrinsic motivation. Extrinsic motivation is often used as teaching materials that are less attracted the attention of students, or because a certain attitude to teachers or parents (Djamarah, 2011: 151).

Both extrinsic motivation extrinsic motivation positive or negative, equally affecting sikap and behavior of students. Admittedly, diploma, compliments, gifts, and so a positive effect by stimulating students keen to learn. While ridicule, censure, penalties insulting, rude innuendo, and sebagainya adversely affect the relationship between teachers and children Loosening didik. Efek retinue, subjects who held the teacher was not in demand by students (Djamarah, 2011: 152).

Interest is something that is important in learning, particularly in mathematics. Such as research Darwin et al (2012) on interest saying "students who have a strong interest tend to be diligent, tenacious, spirit, unyielding and happy to face the challenges". Therefore, students should have an interest in learning mathematics in order to persevere, perseverance, passion, unyielding and happy faces challenges in learning mathematics.

However, the problem today is the low interest of students towards mathematics. In his research, Roida Flora Siagian said that the lack of interest in children's learning of mathematics because of a lack of understanding of the nature and function itself. Though mathematics is one way to clear thinking, precise and meticulous thinking which underlies all of science (the journal formative 2 (2): 122-131).

The strength of a person's motivation to learn also influence the interest in learning. Therefore, the motivation to learn needs to be put, especially coming from inside (intrinsic motivation) by constantly thinking about the future is full of

challenges and must be overcome to achieve the goals can be achieved by learning (M. Dalyono, 2012: 57).

Based on the above, researcher interest to study further the importance of intrinsic motivation and extrinsic motivation in achieving student interest and lifted in a study entitled "Contributions Motivation Intrinsic and Extrinsic motivation Against Interest in Learning Mathematics Grade VIII SMP Negeri 2 Kartasura Academic Year 2015 / 2016".

Research Methods

This study took the class VIII SMP 2 Kartasura totaling 122 students. Then taken 32 students as the sample studied, it is based on the opinion Arikunto (2006: 134) that if the subject is less than 100, it is better taken all that research is the study population. However, if a large number of subjects, it can be between 10-15% or 20-25% or more. Based on the opinion of researchers took 25% of the population. In this study used proportionate stratified random sampling technique, namely the taking of samples to sort the math scores of students, then taken by a draw.

Data collection techniques in this study is the method of questionnaires and documentation. Students are required to answer all items contained in the questionnaire statement, besides the method of documentation in this study aims to obtain a list of names of students used in the study, list the value of mathematics in the midterm grade VIII and photos as evidence of research. Based on the needs of this study using multiple linear regression analysis as a data analysis technique.

In this study, multiple regression analysis is used to determine the relationship between intrinsic motivation (X1), and extrinsic motivation (X2), the interest in learning mathematics (Y). The linear regression equation used is:

$$Y = b_0 + b_1x_1 + b_2X_2$$

Where:

Y = Interest in learning mathematics

X1 = Intrinsic motivation
 X2 = Extrinsic motivation
 b0 = constant
 b1, b2 = coefficient of regression
 (Budiyono 2009: 280-282)

Results And Discussion

Results of data processing with the help of Ms. Excel 2007 shows that intrinsic motivation and extrinsic motivation contributed to the students' interest in learning mathematics. It can be seen from the multiple linear regression equation as follows:

$$Y = 10.65584 + 0.580872 X1 + 0.531368 X2$$

Based on these equations shows that the regression coefficient of intrinsic motivation and extrinsic motivation is positive, meaning that the interest in studying mathematics can change with changes in the value of intrinsic motivation and extrinsic motivation. If the value of intrinsic motivation and extrinsic motivation is constant, then the value of 10.65584 interest in learning mathematics. Each intrinsic motivation gained as much as 1, then the interest in studying mathematics will be increased by 0.580872. Then, for each increment value extrinsic motivation as much as 1, then the interest in studying mathematics will be increased by 0.531368. Similarly, if there is a value decrease intrinsic and extrinsic motivation, the interest in learning mathematics will decline.

The data processing of questionnaires, to determine the contribution of intrinsic motivation to interest in learning mathematics, as well as the contribution of extrinsic motivation on interest in learning mathematics can be seen in table 1.1 as follows:

Table 1
 Summary results of data processing

Variabel	t-hitung	t-tabel	Keputusan
Intrinsic motivation	3.641811	2.045	Ho rejected
Extrinsic motivation	3.048356	2.045	Ho rejected

Based on table 1, it can be seen that for intrinsic motivation $t_{count} > t_{table}$, then H_0 is rejected, so that it can be concluded that intrinsic motivation contributed to the interest in learning math as well as extrinsic motivation. Therefore, this study is corresponding to the previous research by Vreedy Frans Dana (2012) "*Hubungan antara Motivasi Belajar Intrinsik dan Ekstrinsik Siswa dengan Prestasi Belajar Siswa Kelas X Kompetensi Keahlian Teknik Audio Video SMK Ma'Arif 1 Wates*". that intrinsic motivation is more dominant influence on student learning outcomes compared with extrinsic motivation, $t_{count} > t_{table}$, So H_0 denied, so it can be concluded that extrinsic motivation contributed to the interest in learning mathematics. It also corresponding with Mark R. Leeper, et al (2005), conducted research "Intrinsic and extrinsic motivation orientation in the classroom: Age Differences and Academic Correlates". Results from these studies are positive effect of intrinsic motivation to test scores in all levels of class and extrinsic motivation also shows that there are differences between the ranking of the age is not aligned with academic results.

This means increasing the intrinsic motivation is very important in order to increase student achievement in math as well, because the strength of a person's motivation to learn also influence the interest in learning. Therefore, the motivation to learn needs to be put, especially coming from inside (intrinsic motivation) by constantly thinking about the future is full of challenges and must be overcome to achieve the goals can be achieved by learning (M. Dalyono, 2012: 57).

Extrinsic motivation is a positive influence on interest in learning mathematics. This means that if the extrinsic motivation of students increases, the increased student interest in learning math as well, and vice versa. Uly Ulya in previous studies (2012), conducted research "*Pengaruh Minat Belajar dan Motivasi Belajar terhadap Prestasi Belajar Matapelajaran Matematika Siswa Kelas IV dan V pada Mi Riyadlotul Ulum Kunir Kecamatan Dempet Kabupaten Demak Tahun Ajaran 2011/2012*". The results show that there are positive influence as very strong that there is a correlation between interest in learning and

motivation toward learning mathematics achievement grade IV and V in MI Riyadlotul Ulum Kunir.

In this study showed that extrinsic motivation provide positive and significant impact on students' interest in learning mathematics. Students who have extrinsic motivation will be motivated to learn math due to the stimulation from the outside. Such teachers must be good at arousing interest so that the students' learning of mathematics learning outcomes can be increased.

Therefore, successful teacher teaching is the teacher who knows how to generate interest students in learning, by utilizing extrinsic motivation in its various forms. Misapplication forms of extrinsic motivation is not functioning as driving but makes students lazy learning. Therefore, teachers must be able and clever use of extrinsic motivation is accurately and correctly order to support the process of educational interaction in the classroom, Djamarah (2011: 151).

Results of data processing to determine the contribution of intrinsic motivation and extrinsic motivation together against the interest in learning math, which obtained the $F\text{-count} = 28.8814 > F\text{-table} = 3.33$, then H_0 is rejected. Based on these results it can be seen that there are a significant contribution jointly between intrinsic motivation and extrinsic motivation toward learning interest in math class VIII SMP 2 Kartasura. Based on this result is compare by Eva Roida Siagian Flora (2012), is corresponding to conducted research "*Pengaruh Minat dan Kebiasaan Belajar Siswa terhadap Prestasi Belajar Matematika*". Results from these studies is that there are influences students 'interests and habits of the students' learning achievement. Thus, it can be said that the interest of the students and the high student study habits will be higher the students' learning achievement.

In this study, obtained 55% relative contribution given 45% of intrinsic motivation and extrinsic motivation for interest in learning mathematics. Besides the intrinsic motivation give a 37% effective contribution means 63% interest in mathematics learning is influenced by other variables not examined in this study, whereas extrinsic motivation provide 30% of the interest in learning mathematics

means that the 70% interest in learning mathematics is influenced by other variables not examined in this research.

Therefore, the results of the above discussion, the principal was instrumental in fostering the intrinsic motivation of students so that students study harder and achievements, to school. in addition, teachers play a role in educating and motivating students to study hard. to other researchers, is expected to develop this research further to find out more about the intrinsic and extrinsic motivation.

Conclusion

Based on the analysis and discussion of the results, can be summarized as follows: (1) the intrinsic motivation to contribute to interest in learning math class VIII SMP 2 Kartasura, (2) extrinsic motivation contributed to the interest in learning math class VIII SMP 2 Kartasura (3) intrinsic motivation and extrinsic motivation jointly contributed to interest in learning math class VIII SMP 2 Kartasura.

Suggestion

Based on these results, the proposed requirements as follows: (1) to the head at school, should principals conduct activities that can build motivation, (2) for teachers, teacher plays an important role in carrying out activities that can help students in enhancing intrinsic motivation students. (3) For other researchers are expected to develop this research, more broadly, in order to be useful for the improvement of the learning process in the future.

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