

Perception of Student about Character Teacher's Mathematics on Senior High School Semarang Central Java Indonesia

Muhdi¹ and Achmad Buchori²

^{1,2} Universitas PGRI Semarang, Indonesia.

Abstract

This study aims to determine the character of a mathematics teacher in 10 High School in Semarang who teach in the twelfth grade on 2016 and to know how the math teacher character expected of students based on student's perception. The results showed that students are expected of math teacher character is patient, disciplined, tenacious, able to good interact with students, decisive, caring, teaching methods fun, and honest. On average there are math teachers in this study had to meet the expectations of students as much as 77.5%.

Keywords: Character, teacher, math, student expectations

INTRODUCTION

Education is basically aimed to shape the character of students who excel in knowledge (*knowledge*), attitude (*attitude*), and skills (*skills*). The purpose of education stipulated in Law No. 20 of 2003 about National Education System, which reads: "The national education serves to develop and form the character and civilization of the nation's dignity in the context of the intellectual life of the nation, is aimed at developing students' potential to become a man faith and fear of God Almighty, noble, healthy, knowledgeable, skilled, creative, independent, and become citizens of a democratic and responsible. "

School, either consciously or unconsciously, to teach the values of good and bad in the behavior of students in all aspects. "Every interaction, neither of which is humanitarian curriculum such rules, roles, and relationships, potentially affecting the values and character of students and shaping it be good or bad" (Lickona, 2013: 98).

One of the drivers education is teacher. Teachers are educators and teachers in formal and informal education. In a broader definition, every person who teaches a new thing

also considered a teacher. Mulyasa (2015: 106) states that "the influence of teachers is very important to the success of student learning. Therefore, an understanding of the techniques affect (*influence strategy*) others is very important to have a teacher".

Gao and Liu (2013) shows the characters that can improve treatment in the classroom, among others "... enthusiasm, fairness, high expectations, humor, patience, and responsibility". While Cristian (2014) revealed that "the main qualities that make students appreciate their teachers are teaching clarity. In second place is the illustration of concepts and theories taught by a teacher and a great example. And in third place is the justice shown by the teacher".

Today, mathematics is one of the lessons that dreaded by students. A common problem found in mathematics, among others, the low average test scores nasonal, low interest in learning, lack of international competitiveness, and math was more difficult because the math teacher to teach mathematics with methods and materials that are considered of interest to students. Sudarini (2013) said that "when the number of students do not like math increased then there is a mathematical loss of power or force in shaping the mindset and attitude (character) is positive. Thus obliging them to learn math tells him to do something as hateful act (causing more hate). Faced with this reality the teacher should immediately bring the power of mathematics in the form of beauty, meaning, and their benefits, even the positive values that are stored in the material / mathematical concepts put forward in front of the students to restore an interest and love for mathematics. "

Various kinds of myths about math teachers is widespread, both positive and negative. On the good side, "... good math teachers always considerate, ethical, expressive, strong, intelligent, knowledgeable, reliable, mature, magnetic, perfectly, have good judgment, and a sense of humor" (Gieger, 2007). This contrasts with Boyd (2014), which says "... the mathematics teacher had used poor teaching practices, such as an inadequate explanation of the concept, working from books, worksheets, and management practices of poor teaching".

Observations from SMAN 10 Semarang indicate that there are characters from teachers who make students less comfortable in the learning of mathematics. According to the student, a math teacher should be able to encourage the interest of the students to be comfortable learning mathematics so that math a little easier for them. "Teachers should be aware that there are various ways to learn math and effective teaching practices must begin with an understanding of how their students think about mathematics. This is to prevent teachers from imposing their way of thinking for teaching "(Maat-Zakaria, 2010).

This was confirmed by Beswick (2014) in relation to teacher planning to teach, "... teachers are prioritized using a variety of teaching strategies accordingly, the importance of students' backgrounds in mathematics previously, using technology available, providing opportunities for students to explore and apply mathematics in the major field of study, as well as build and enrich the students' knowledge of existing and appreciation for mathematics".

Based on the above background, the problem in this study is formulated as follows:

1. How do the characters in high school math teacher who taught the class 10 Semarang XII of the school year 2016 according to students?
2. Do characters mathematics teacher at Senior high school 10 Semarang who taught the class XII in the academic year 2016 has met the expectations of students?

This study aims to determine the general character of the mathematics teacher who taught the class XII in senior high school 10 Semarang, knowing the character of mathematics teachers expected students, as well as to provide reference and feedback to prospective teachers of mathematics.

RESEARCH METHODS

The study was conducted in Senior high school 10 Semarang. The research instrument using interview guide and questionnaire totaled 50 questions. Determination of subjects using *purposive sampling* technique, by analyzing the results of a questionnaire distributed to 100 class XII student majoring in science and social studies for four different objects. Having analyzed the results of questionnaires, determined two subjects students as informants to be interviewed for each first object math teacher. So there are eight subjects students are interviewed for four objects math teacher.

The object of research is all teachers of mathematics teaching in the academic year 2016 in Senior high school 10 Semarang. The math teacher who taught the class XII amounted to 4 people.

Researchers analyzing the data according to the data analysis by Miles and Huberman in Sugiyono (2013: 246), namely: data collection, data reduction, data presentation, and conclusion. The questionnaire used was a questionnaire *Likert* scale models scale arranged in the form of a statement and was followed by five responses that indicate levels (Arikunto, 2009: 180). There are five levels categories, namely strongly agree, agree, neutral, disagree, and strongly disagree. As for categorization using 5 restriction norm (Sudijono, 2010: 175) as follows:

Table Formulas Category

Formulas Category	Category
$> M + 1.5 SD$	Strongly agree
$M + SD \leq X < M + 1.5 SD$	Agree
$M - 0.5 SD \leq X < M + 0.5 SD$	Neutral
$M - 0.5 SD \leq X < M - 0.5 SD$	Disagree
$< M - 1.5 SD$ below	Strongly Disagree

M = Mean count

SD = Standard deviation calculated

How to determine the data analysis is the relative magnitude of the percentage by the formula:

$$P = F / N \times 100\%$$

Information:

F = Frequency, N = Number,

P = Percentage

The validity of the data used is using triangulation sources, triangulation techniques, and triangulation of time.

RESULTS AND DISCUSSION

1. Observation

Observations were made as the research object of mathematics teaching in the classroom and outside the classroom when researchers interact with objects.

a. Object 01

Observations indicate that the object 01 has manners, confidence, cooperation, and good discipline. Seen when he interacted with the students, not late when entering the classroom, providing academic opportunities to students, and behave 3S (greetings, smiles, greetings). Object 01 is quite friendly with his students but still look dignified and respected student. Object 01 terlihat wisdom of how he classifies students who have the cognitive more students with less cognitive. With this method, students more easily ask peers who are considered able to master the material more quickly. This also alleviate the work of teachers in explaining.

b. Object 02

Object 02 has an honest character, courtesy, tolerance, discipline, caring, teamwork, thoughtful, and democratic good. He was familiar with the students. Some characters are visible when the object 02 interacts with the students, providing a solution to the existing problems in the classroom, how Object 02 guiding students who do not understand, the way he joked and quipped students, how students talk with Object 02 and pay attention to Object 02, and when the object 02 advised the students to respect others when the object 02 to know many students who do not share the extra hours the teachers are trying to set off early to provide an additional hour.

c. Object 03

Object 03 is a mathematics teacher who has an honest character, courtesy, respect, and responsibility. 03 objects seem indifferent and less authoritative because it is too often joking with the students as well as seen from the way students interact to object 03 very relaxing like to speak with his own friends. However, it is also menunjukkan

that the object 03 is very familiar with their students. Concern Object 03 terlihat of how he advised the students and when he would get around to guide the students personally.

d. Object 04

Object 04 is a very quiet person. Some of the characters that appear are: honesty, courtesy, tolerance, respect, leadership spirit, cooperation, caring, fair and good. Object 04 is a teacher who is familiar with the student. During the observation in the classroom, the researchers saw that the object 04 is able to interact with both the students and vice versa. When outside the classroom, he often addressed the students and how to say hello also looks familiar. He also responded to the greeting with a friendly and sometimes a bit of a joke.

2. Questionnaire

Number of questions in the questionnaire was 50 with a scale of 5, ie, SD (Strongly Disagree), D (Disagree), N (Neutral or Between Yes and No), A (Agree), and SA (Strongly Agree).

Analysis of scores is divided into two, namely a score for each question and a score to each questionnaire. Here are the guidelines category score for each question and the guidelines category scores for each questionnaire.

Guidelines Category Score Per Problem	
SCORE	CATEGORY
25-49	Not good
50-74	Pretty good
75-99	Good
100-125	Very good
Guidelines Category Score Per Questionnaire	
SCORE	CATEGORY
50-99	Not good
100-149	Pretty good
150-199	Good
200-250	Very good

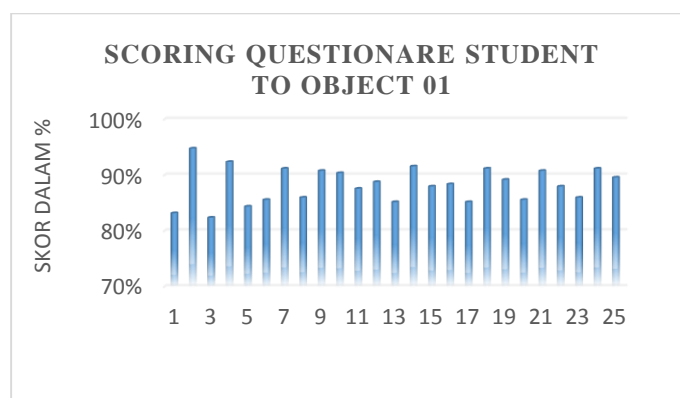
The results of the questionnaire assessment is as follows.

a. Object 01

The questionnaire results were obtained for object 01 for every matter assessors totaling 50 is a minimum score of 76 out of 125, the maximum score of 124 out of

125, and the average of 110.38, indicating a very good category. As for the analysis of each questionnaire, Object 01 got a score of at least 206 out of 250, the maximum score of 237 out of 250, and the average of 220.76 for the 25 questionnaires that were distributed to students. This shows a very good category.

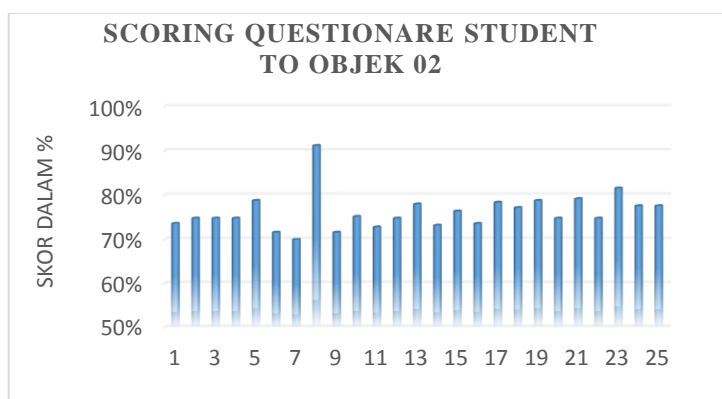
From analysis per question and per questionnaire, Object 01 into the category of an excellent teacher by students. He was able to be a role model character excellent maths teacher by students.



b. Object 02

The results of the questionnaire 02 for analysis per question, namely, a minimum score of 78 out of 125, the maximum score of 105 out of 125, and an average of 95 shows 02 objects fit in either category. Meanwhile, in the analysis of a questionnaire, Object 02 get a minimum score of 175 out of 250, the maximum score of 228, and an average of 191 categorize.

From the analysis of a problem and the analysis of the questionnaire obtained per Object 02, it can be said that the object 02 is a good math teachers by students. The following chart shows the analysis of the scores for each questionnaire.

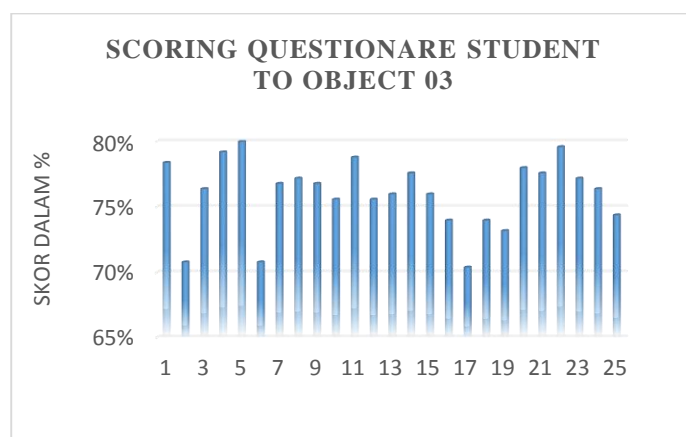


c. Object 03

The results of the questionnaire showed Objects scoring 02 got a score of at least 86 out of 125, the maximum score of 102 out of 125, and an average of 95, which means a good category.

In the analysis of scores per questionnaire, Object 03 get a minimum score of 176 out of 250, the maximum score of 200 out of 250, an average of 190, and the good category.

From the analysis of scoring per question or per questionnaire showed Object 03 is a math teacher with a fine character. Here is a graph analysis of scores per questionnaire of the object 03.

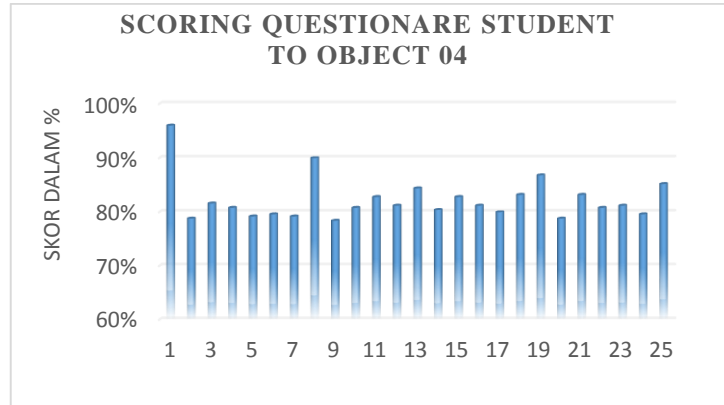


d. Object 04

Analysis of scoring per question questionnaire to Object 04 is the minimum score of 91 out of 125, a maximum score of 109, and an average of 102.8 that includes 04 objects in the excellent category.

While the results of the analysis of a questionnaire scoring, Object 04 get a minimum score of 196 out of 250, the maximum score of 240 out of 250 and an average of 205, 6 which means that category very well.

From the analysis of scores per question or per questionnaire analysis, object 04 can be said to be a mathematics teacher who has a very good character and can be used to look up to. Below is a chart analysis Objects score 04 for each questionnaire.



3. Interview

Interviews conducted after determining the research subject of a valuation analysis questionnaire on each object. Subjects chosen were two students from each object. So the total subjects interviewed were 8 people. Interviews with the subject done at some time and place according to the agreement subject and researcher.

The purpose of this interview is to dig deeper into how the characters Object 01, Object 02, Object 03, and Object 04 from eight subjects were selected. Another aim is to find out the expectations of students how math teacher character expected by students.

a. Object 01

The subject will be interviewed to find out more in the character object 01 is the subject of 02 and 06. The object 01 subject is math teachers were very friendly and able to get along with his students. He can position themselves well and be very guiding students so that object 01 into a math teacher who is quite a favorite among students. Object 01 has the character of affection, honesty, courtesy, tolerance, respect, discipline, spirit of leadership, self-confident, responsible, caring, teamwork, thoughtful, friendly / communicative, fair, and democratic. These characters can be seen from the everyday

However, there is a slight lack of object 01 by Subject 02 and 06 subject that is worth less transparent, sometimes there is a value which is not published so as to make students curious. His high discipline also makes students less comfortable for the students feel it makes students often heart gymnastics although students are aware that this discipline is very important to have a teacher.

Characters math teachers are expected to subject 02 is to be patient, diligent, adaptable and close to the students, disciplined, organized, and maintain spoken. While the math teacher character expected by Subject 06 is a patient, painstaking, disciplined, tenacious, able to follow the students, and transparent. The object 01 already meet the expectations of Subject 02 and 06 subject sebasar approximately 80%.

b. Object 02

Subjects 04 and the subject 05 be a resource to learn more about the character object 02. Object 02 is a figure which ferociously mathematics teacher and good in the eyes of students. Concern Object 02 and to teach students to make students learn quickly understand and are comfortable with him. Object 02 has the character of compassion, honesty, courtesy, tolerance, respect, discipline, spirit of leadership, self-confident, responsible, caring, teamwork, thoughtful, friendly / communicative, fair, and democratic good. These characters can be seen from the everyday object 02 for teaching and interacting with students.

However, there is a slight lack of Objects by Subject 02 Subject 04 and 05 that he was often emotional, grumpy, closed, and satirical makes students less comfortable with Object 01. Emotional and fierce heart gymnastics students often make when following study object 01 even though the students are very aware that it is intended to give deterrent effect to students who lack order and is necessary for students to have a figure that is feared to do things that are less good.

Math teacher character expected by Subject 04 is sociable, closer to the students, discipline, caring, assertive, and teaching methods are easy to understand students. And the math teacher character expected by Subject 05 is not fierce but disciplined, the explanation is easy to understand the students, care for students, assign tasks appropriately, not indifferent, simply believing in yourself, dear to their students, and honest. Object 02 meets about 80% of expectations Subject 04 and 05 subject.

c. Object 03

Subjects 01 and the subject 07 be a resource for researchers to dig deeper into the object 03. Object 03 is an easy math teachers take a joke by his students and often jokes in class. His eminence can build a relaxed classroom atmosphere. But in addition, also less preferred object of 03 students for teaching him too fast, less obvious, and often to the board so that students do not understand the explanation he.

Object 03 has the character of compassion, honesty, courtesy, tolerance, respect, discipline, spirit of leadership, self-confident, responsible, caring, teamwork, thoughtful, friendly / communicative, fair, and democratic pretty good by Subject 01 and subject 07. these characters can be seen from the everyday object 03 for teaching and interacting with students both inside and outside the classroom.

Characters math teachers are expected to subject 01 is patience, discipline, love to interact with the students, making the students easily understand, often provide academic opportunities, and care to students. 03 new objects meet 60% of expectations subject 01. While the character of the mathematics teacher who expected 07 subject is math teacher who disciplined, clear way of teaching and often facing the students so that students understand the explanation given by the math teacher. The object 03 already meets 65% of the 07 subject expectations.

d. Object 04

Subjects 03 and the subject 08 be a resource for Object 04. Object 04 is a mathematics teacher who was very friendly, able to get along with his students, and were able to position themselves. Object 04 has the character of compassion, honesty, courtesy, tolerance, respect, discipline, spirit of leadership, self-confident, responsible, caring, teamwork, thoughtful, friendly / communicative, fair, and democratic. These characters can be seen from the everyday object 04 for teaching and interacting with students both inside and outside the classroom.

However, there is a slight lack of object 04 by Subject 06 and 08 subject that lacks leadership, impressed rush when presenting the material regardless of the students are ready to go or not, closed, and does not often provide academic opportunities for students.

Math teacher character expected Subject 03 is a nice, easy to get along with the students, can guide their students well, explaining more slowly, giving the task reasonable and corrected, care for students, and more open to make students more familiar figure math teacher. And the expected 08 character subject to the math teacher is to have fun learning methods, students can control, discipline, caring more for students who are low-power mathematics capture, patient, democratic, and a detailed explanation of the matter. The object 04 already meet the expectations of Subject 08 Subject 03 and 80%.

DISCUSSION

Math teacher character cannot be lost on the students. Because students meet math teacher almost every day, then a little more students would know math teacher character. There is a math teacher who makes students reluctant and highly respected, there is a very friendly so students often regarded as peers, and there is also a math teacher who has a unique character.

The object 01 and the object 04 is a mathematics teacher who was very friendly with the students. From questionnaire data, Objects Objects 01 and 04 included in the category very good math teacher. Both of these teachers can be said the teacher's favorite student. From the interview data also found that these two teachers already meet the expectations of students about 80%. Characters from both the teacher is also a little different. The object 01 has a character strong enough discipline, while the object 04 friendly character that is strong enough.

Object 02 is famous among students with cap stern teacher. However, many students are already familiar when he became familiar with him and made him a favorite math teacher. This is because the object 02 is very concerned about their students, explained very well so as to make students easy to understand, and the very discipline that students do not dare to do things that are not as good as in violation of the regulations, do not do the work, and too late. From the interview data, the subject reveals that if a student who dared to violate the order, then these students will be

exposed to penalties and some times insinuated by the object 02 so that the child deterrent.

Object 03 is the teachers who make students comfortable enough to learn with him. Based on observations and interviews, the convenience of students on object 03 is because the object 03 used to joke, jokes in class, and intelligent to keep students motivated. However, from the interviews, it was found that the object 03 is often not obvious when explained, often mengahadap board, and too fast so that students are not able to capture the object 03 to give an explanation. This has an impact on student academic. Many students who are not familiar with the material and find it difficult when doing the test.

From the observations, questionnaires, and interviews conducted with Object 01, Object 02, Object 03, as well as the Object 04, showed that the mathematics teacher with a class of 12 in the school year 2016/2017 in the SMAN 10 Semarang has a character affectionate, honest, polite manners, tolerance, respect, discipline, fair, confident, spirited leadership, caring, able to work together, responsible, thoughtful, friendly, and good democratic so it can be used as a model for future math teacher.

CONCLUSION

The math teacher who teaches 12 classes in the school year 2016 in Senior high school in Semarang has a variety of characters. From research conducted, showed that 12 grade math teacher is a teacher like students, and even teachers who become teacher's favorite student.

Object 01, Object 02, Object 03, and the object 04 is able to guide students well. They have the character of compassion, honesty, courtesy, tolerance, respect, discipline, spirit of leadership, self-confident, responsible, caring, teamwork, thoughtful, friendly / communicative, fair, and democratic good so students are comfortable learning with four teachers them.

Characters math teachers expected students, among other disciplines, was fond of his student, care, using a method that is easy to understand, honest, responsible, familiar with the students, and appreciate the students. Object 01, Object 02, Object 03, and the object 04 is sufficient to meet the expectations of the students about 65% to 80% and can be used as a good role model as a teacher of mathematics.

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