



## THE RELATIONSHIP BETWEEN LEARNERS PERCEPTION ON COMPETENCIES OF SCIENCE TEACHER WITH MOTIVATION AND LEARNING OUTCOMES OF STUDENTS IN JUNIOR HIGH SCHOOL IN TUAL CITY

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### Article Info

#### Article History:

Received April 2019

Accepted July 2019

Published December 2019

#### Keywords:

Students perceptions, Teachers Competence, Learning Motivation, Learning Outcomes.

### Abstract

Teacher competence plays an important role in improving students learning outcomes. This study aims to determine the relationship between (1) students perceptions about the science teacher competence and students motivation of Junior High School in the Tual City, (2) students perceptions about the science teacher competence and students learning outcome of Junior High School in Tual City, (3) Students learning motivation and learning outcomes of Junior High School in Tual City. Study data were obtained from 124 students and three teachers from three schools. The results showed that (1) There is a significant relationship between students perceptions about the science teacher competence and students motivation of Junior High School in the Tual City, (5) There is no significant relationship between students perceptions about the science teacher competence and students learning outcome of Junior High School in Tual City, (6) There is no significant relationship between students learning motivation and learning outcomes of Junior High School in Tual City. Students perception on science teacher competence and learning motivation are not the only factors that affect learning outcomes, but there are several factors that influence the learning outcomes of students.

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p-ISSN 2252-6617  
e-ISSN 2252-6232

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## INTRODUCTION

Perceptions of each students in teacher's competence is not always the same. This is because the character, way of thinking, family background and past experiences of learners are different. There are students who due to high intelligence level teachers' thought that way too slow and tortuous, but learners who are less intelligent think that the way teachers teach too fast. On the other hand there are learners who said that his master was too fierce for home used to being treated with spoiled by their parents, and there are students who say the teacher is too weak for home and neighborhood communities already treated with harsh and rough by her parents. From some of the illustrations shown that perceptions of each learner on different teacher. This allows the study of students will also vary. As it is known that the characteristics of the eastern region of Indonesia known firm, loud and outspoken. Learners in Tual town are used to hearing harsh words, and even the students themselves often say rude towards friends and even teachers. Rant was obtained or heard from parents, communities, even in the school environment so that learners imitate it. Learners are accustomed to harsh treatment and harsh words at home or neighborhood. So that teachers who have a gentle personality trait would have difficulty in giving guidance to the students, because students do not pay attention to the direction of the teacher if only with words but must be soft perkatan aloud,

One of the problems in education, especially in the city of Tual is poor science learning outcomes of students. Many learners who obtain the minimum completeness criteria substandard learning outcomes and results of national examinations for teaching science learners are less than the maximum. This is evident from the results of the national exams in four subjects namely Mathematics, Indonesian, English and Science. Science subjects that received the lowest value of the four subjects of the national exam. Low learning outcomes of students is due to the lack of motivation of students to learn and

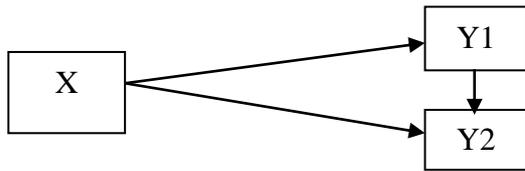
participate in the learning process. Many learners who are indifferent to the lessons just come to school to terminate the obligation, and the most common is the learners who merely follow the lessons, just to sit in class without understanding what is conveyed by the teacher concerned. In addition, teachers have difficulty teaching science in science subjects because there are three subjects namely Physics, Chemistry, and Biology. Master's educational background find it difficult to teach Biology Physical and chemical materials, and vice versa.

One factor that influences the learning outcomes of students is the perception of such learners to teachers, if the students have a good or positive perception towards the teacher then learners will prefer learning and produce better learning outcomes anyway. However, if learners are unfavorable or negative perception towards the teachers and learners will feel pressured into learning and trying to avoid learning delivered by the teacher so that the learning outcomes in the classroom becomes less than the maximum. This is supported by the results of research that says that, learnersable to evaluate or provide an assessment of an effective learning process. Learners assess their teachers "like" it as an effective teacher and that "not favored" as an ineffective teacher. That is, from the perspective of students, evaluation is largely a popularity rating (Scarboro, 2012 and Najichun & Winarso, 2016). A learner which has a positive perception of the ability of teachers in the learning process will increase the motivation of learners followed by improving learning outcomes of students (Mulyana, Hidayat, and Serang, 2013).

## METHODS

This type of research is ex post facto research. The research variables consist of independent variables (perception of

students on science teacher competence) and the dependent variable (motivation and learning outcomes of students). The study design can be described as follows:



Information:

X = Students Perceptions about science teacher's competence

Y1= Learning Motivation

Y2= Learning outcomes

**Research samples**

The population in this study is overall learners Junior High School eighth grade in Tual town second semester 2017/2018 academic year, amounting to 827 students. The sample in this study amounted to 124 learners. The sampling method is done by using purposive sampling method. This sampling technique is used with the consideration that the students of grade VIII were taught by teachers of Civil Servants who served as a teacher over 10 years, bachelor's in science (Physics, Chemistry, and Biology), and the teachers have been teacher certified. The assumption that teachers with the criteria already meet the standards of educators based on article 8 of Law No. 14 of 2005.

**Research instruments**

Research instrument used in this study are as follows:

1. Instrument of students' perceptions about Science teacher competence

Questionnaire to measure perceptions of students about the science teacher competency statement item numbered 60, consisting of positive statements and negative statements that include the perception of students on professional competence, pedagogical, personality, and social.

2. Instruments of learning motivation

Questionnaire to measure the learning motivation consists of 35 items statements consisting of positive and negative statements statements based on indicators of motivation by Uno (2008) and Schunk, Pintrich & Meece (2008).

**Data analysis**

Data on the perception of students towards science teacher competence, motivation to learn, and learn science outcome data were analyzed quantitatively learners. Analysis of the data used is descriptive analysis and inferential analysis.

1. Descriptive Analysis

Descriptive analysis is used to describe the students' perception score on science teacher competence, learning motivation of students in the form of categories.

**Table 1.** Categorization of students' perception of Science Teacher Competencies and Learning Motivation

interval Scores	Category
Score < M - 1.5 SD	Very low
M - 1.5 SD ≤ score < M - 0.5 SD	Low
M - 0.5 SD ≤ score < M + 0.5 SD	moderate
≤ M + 0.5 SD score < M + 1.5 SD	High
Score ≥ 1.5 M + SD	Very high

Source: Sudijono, 2011

**Table 2.** Categorization of Learning Outcomes

interval Scores	Category
91- 100	Very good
81-90	Well
71-80	Enough
60-70	Less
<60	Very less

Source: Kemendikbud, 2015

2. Inferential statistical analysis

Inferential statistical analysis used is the correlation analysis. This can be done after a test conducted analysis requirements have been met, namely normality test and linearity test.

Hypothesis test used to examine the relationship between perceptions of students about the competence of science teachers with learning motivation, the relationship between students perceptions about the competence of science teachers with learning outcomes, and the relationship between learning motivation and learning outcomes do Product Moment correlation test using a system of computer program SPSS 20.0 for Windows with the testing criteria based on the significance, if the significance value <0.05 then there is a significant correlation, otherwise if the significance value > 0.05 then there is no significant correlation.

**RESULTS AND DISCUSSION**

*Students Perceptions about Science Teacher Competencies*

**Table 3.** Frequency and Percentage Category Perceptions of Competencies Learners Junior High School science teacher in the city of Tual

interval Scores	Category	Frequency	Percentage
≥ 250	Very high	11	8.9%
233-249	High	23	18.5%
215-232	moderate	35	28.2%
197-214	Low	24	19.4%
<197	Very low	31	25%

Table 3 shows that the perception of the students about the competence of science teachers Junior High School in the town of Tual included in the category. Perceptions of students who are in the category of "moderate" regarding competence Junior High School science teachers in Tual town caused by the observation of the behavior of learners teachers sometimes teach in science teaching hours, teachers do not understand some of all of the content material science. This is because the teacher is teaching science undergraduate Physics Education, or Biology. There is no science teacher who is an undergraduate science education. So, a

science teacher whose background Biology Physics department did not master the material and vice versa. Results of interviews with grade science teacher VII, VIII and IX to say that a science teacher rarely participated in workshops, Education and Training (Training) and Deliberation Subject Teacher so that the teacher has not been able to manage the class well, and yet full laboratory facilities support learning activities so that students rarely use the lab in the learning process. The results of this study reinforced by the theory that one of the basic principles of perception is the perception of relative rather than absolute. In conjunction with the relativity of perception learners, then what is experienced, felt, known, about the activities of teachers at the school will provide an assessment in accordance with the conditions of learners at the time of the incident. That means, the perception of learners may change because of their situation, and the occurrence of events that also changed (Wekke, 2018).

*Learning Motivation*

**Table 4.** Frequency and Percentage learning Motivation Category Learners Junior High School in the city of Tual

interval Scores	Category	Frequency	Percentage
≥ 145	Very high	31	25%
135-144	High	34	27.4%
125-134	moderate	19	15.3%
114-124	Low	26	21%
<114	Very low	14	11.3%

Table 4 shows that the motivation of learners Junior High School in the city of Tual included in the high category. This shows that the average learner Junior High School State in the city of Tual have a high motivation to learn and achieve. The high motivation of learners is because the average learners have a desire to succeed. Managed to get the highest score so as to obtain class rank and the desire of students to continue their education to a higher level, namely the level of high school and

university. In addition, the high motivation of learners dikarenakan learners feel interested to learn science, where in learning science is accompanied by practical activities directly in the field or in the laboratory even though the lab laboratory is not maximized or still rarely carried out by teachers and learners due to limitations of equipment and materials, only certain materials that the tool and the material available. Other than that,

### ***Learning outcomes***

Table 5 shows that the study of students Junior High School in the city of Tual. In general, the study of students that are in the categories of sufficient and less category.

**Table 5.** Frequency and Percentage Category Learning Outcomes Learners Junior High School in the city of Tual

<b>interval Scores</b>	<b>Category</b>	<b>Frequency</b>	<b>Percentage (%)</b>
91-100	Very good	0	0
81-90	Well	0	0
71-80	Enough	42	33.87
60-70	Less	52	41.93
<60	Very less	30	24.19

The study of students who are in the category of less influenced by two factors: internal factors and external factors. Internal factors affecting learners is physiological and psychological factors. Based on observations and interviews with teachers, seen in the learning process of learners quickly tired and sleepy, what more if a science lesson is in the final hours of learning so that learners are difficult to accept the lesson well. Fatigue experienced by learners is also due to a number of students work to help parents find the money. Besides memory of learners towards learning is very low, visible when the teacher explains the subject matter, five minutes later when the teacher asked about the material that has been previously described, learners do not remember anymore. In addition to physiological factors, psychological factors also influence the learning outcomes of students. One of the

most influential science learning outcomes of students of Junior High School in Tual town is comprehension or learners absorption of the material is still low. In addition, low learning results obtained by the students are also caused by material science lessons in the 2nd half most of the materials physics which included a lot of material calculations, while the students are still weak in terms of calculation. The results obtained, in line with the theory that, physiological factors and psychological factors are internal factors that greatly affect the ability of learners. Learners in a fresh state will be different temporal learning of learners in a state of exhaustion. Learners malnourished learning capacity under the learners who are not malnourished, their fatigue, drowsiness, and difficult to accept the lesson (Djamarah, 2002).

External factors that affect learning outcomes of students Junior High School in the city of Tual are environmental factors, in particular the natural environment. Hot temperatures lead to learners' swelter so unfocused receive the subject matter presented by the teacher. Attention parents are also external factors that affect the learning outcomes of students. Many parents of students do not pay special attention to the study of students, parents seem indifferent to their children's education. In addition, low yields learners to learn science SMP in Tual town also caused by the material science in eighth grade second semester of average physical matter in which there are some material calculations. While the teacher is the teacher whose educational background is in Biology, so that the delivery of content to learners not optimal. The results are consistent with the theory that, factors affecting learning outcomes are external factors that include family factors consisted of how parents educate, relationships within the family, the house, family economic circumstances, understanding parents, and cultural

backgrounds; school factors consisting of teaching methods, curriculum, teacher relations with students, the state of the building, and so on; community factors consists of the activities of learners in the community, friends hung out, and shape public life (Djamarah, 2002). factors that affect learning outcomes are external factors that include family factors consisted of how parents educate, relationships within the family, the house, the family's economic situation, understanding parents, and cultural backgrounds; school factors consisting of teaching methods, curriculum, teacher relations with students, the state of the building, and so on; community factors consists of the activities of learners in the community, friends hung out, and shape public life (Djamarah, 2002). factors that affect learning outcomes are external factors that include family factors consisted of how parents educate, relationships within the family, the house, the family's economic situation, understanding parents, and cultural backgrounds; school factors consisting of teaching methods, curriculum, teacher relations with students, the state of the building, and so on; community factors consists of the activities of learners in the community, friends hung out, and shape public life (Djamarah, 2002).

***The relationship between the perception of competence Learners with Learning Motivation Science Teachers***

**Table 6.** Correlation Summary students Perceptions of scienceTeacher Competence (X) with the motivation to learn (Y1)

<b>N</b>	<b>Pearson Correlation</b>	<b>Sig.</b>
124	0497 **	000

Table 6 has sig.  $0.000 < 0.05$  then there is a significant correlation between perceptions of students about the competence of science teachers (X) with the motivation of learners (Y1), and by the asterisk (\*) at the Pearson correlation then between variables

were analyzed the case of positive correlation so that the research hypothesis H0 is rejected, H1 accepted that there is a relationship between perceptions of students about the science teacher competence and motivation of learners Junior High School in the town of Tual. Positive direction indicates the relationship between X and Y1 unidirectional, meaning that the higher the perception of the students about the competence of science teachers (X) the better the motivation of learners (Y1) and vice versa.

Learners will have the ability to motivate him to learn because learners perception positively to the competency of teachers, both professional competence, pedagogical, and social competence kepribadaian. Learners have a good or positive perception of the competence of science teachers would prefer learning, so that students are more motivated to follow the lesson well, following every science learning activities, and more eager to learn science. Perceptions of students to teachers' competencies, interests and attitudes of students towards learning Learning effect on learning outcomes. Learners who have a good perception (positive) on the competence of teachers as well as the high interest and a positive attitude towards learning, then in him will arise the desire or motivation to excel (Mulyana, Hidayat, and Serang, 2013), The research result Asih (2017) also showed a similar thing. Research results show that there is a significant positive relationship between students 'perception of science teachers' teaching methods with an interest to learn science in junior high school students. The extent to which students 'perception of science teachers' teaching method and relatively high interest in learning science. Effective contribution to students 'perceptions of teachers' teaching method to learn science science with an interest of 35.6%.

***The relationship between the perception of competence Learners with Learning Outcomes Science Teachers***

**Table 7.** Correlation between Students Perceptions about science Teacher Competence (X) with learning outcomes (Y2)

N	Pearson Correlation	Sig.
124	0151	0095

Table 7 has a sig 0095 > value  $\alpha 0:05$ , means there is no significant correlation between perceptions of students about the competence of science teachers (X) with the study of students (Y2). This suggests that among the variables that were analyzed did not happen correlation so that the research hypothesis H0 is rejected and H1 accepted that there was no correlation between the perception of the students about the competence of science teachers with the study of students Junior High School in the Tual City.

The absence of a relationship between students perceptions about the science teacher competence with learning outcomes, although the students perception about the science teachers competence in medium category and students perceptions on the science teacher competence has a relationship with the learning motivation, it is due to not only the perception of participants students on the competence of teachers as the only factor that affects the learning outcomes of students, but there are many factors, some of which are not yet completed the laboratory facilities that support learning activities so that students rarely use the lab in the learning process so that the subject matter is acceptable learners are also less maximum. Moreover, the ability or comprehension of students in accepting the subject matter is still very low. Based on interviews with science teachers, lack of comprehension learners are seen when the teacher explains the subject matter, 5 minutes later the teacher asked about the material identified, learners do not remember anymore the material described earlier. Low grasp

learners of the subject matter also caused the basics of subjects received learners while attending elementary school is still lacking proven when the teacher teaches science, learners find it difficult, especially on the physics of matter which is generally the material is a matter of calculation. Learners are difficult to understand and solve the problems because the basic math calculations is still very poor, causing a low learning outcomes of students. The results of this research was supported by the results of research that says that there is no relationship between perceptions of students about math teachers with math learning outcomes. How to learn and motivation to learn is the dominant factor affecting the results of learning mathematics learners. While perceptions of learners to teachers rely on the enthusiasm and motivation of teachers while teaching in the classroom. Diamana teacher enthusiasm was reflected by the behavior of the teacher for teaching mathematics. that's what's the perception of students towards their teachers (Najichun & Winarso, 2016). While students' perceptions to science teachers rely on the enthusiasm and motivation of teachers while teaching in the classroom. Whereas teacher enthusiasm was reflected by the behavior of the teacher for teaching mathematics. that's what's the perception of students towards their teachers (Najichun & Winarso, 2016). While perceptions of learners to teachers rely on the enthusiasm and motivation of teachers while teaching in the classroom. Diamana teacher enthusiasm was reflected by the behavior of the teacher for teaching mathematics. that's what's the perception of students towards their teachers (Najichun & Winarso, 2016).

***Relationships between Learning Motivation by Learning Outcomes Correlation***

**Table 8.** Summary Motivation (Y1) with the Learning Outcomes (Y2)

N	<i>Pearson Correlation</i>	<b>Sig.</b>
124	0152	0092

Table 8 has sig 0092 >  $\alpha$ :05, so there is no significant correlation between perceptions of students about motivation to learn (Y1) to the study of students (Y2). Junior High School in the town of Tual.

The absence of a relationship between learning motivation and learning outcomes of students is caused by several factors. Not only motivation to learn as the only factor affecting learning outcomes but there are other factors that influence such as, lack of control from parents as external factors that support or motivator to the success of learners, parents hand over full responsibility to the school about success of learners in learning without any support or encouragement to learn at home. In addition, the originating factor of teachers has also been one of the low learning outcomes of students despite their motivation to learn quite high. When the learning process, the teacher becomes the sole source of information or a source of knowledge for students, learners become passive because of the teaching methods used by teachers are generally centered on the teacher. Other factors are no less important is the learner's own, in which the ability of learners is still below average, or absorption ability of learners to receive the subject matter is still very low. In addition, the interest of students in learning science, especially in the 2nd half of class VIII is still low due to the material science in the 2nd half of class VIII is generally in the form of materials physics. It is also consistent with the results of research Ahmad *et al.* (2017) which states that students' academic ability is influenced by several factors, including effectiveness in teaching, the subjects taught and the environment as well as the facilities provided. Centra & Gaubatz (2005) also found that there are high correlations of exam scores

with overall teaching effectiveness and course value, ratings of Course Objectives and Organization and the quality of lectures Also were fairly well correlated. The results of this research was supported by the results of research that says that although the students looked at the class as a positive, and describe themselves as highly motivated to learn, level of cognitive engagement is influenced by two interrelated factors that control teachers have over almost all the activities and beliefs of participants students about learning. Data show that intrinsic motivation such prior knowledge, interest in the subject matter, as well as a willingness to spend extra time and effort and extrinsic motivation such as the relationship of students-teachers were good, and the purpose of extrinsic like doing exams and future work that can cause deep involvement in learning more methods are limited by a teacher-centered teaching (Hanrahan, 1998).

## CONCLUSION

Perceptions of students to teachers and learning motivation is not the only factor affecting learning outcomes of students. The role of parents and the community is also needed to improve the learning outcomes of students to give more attention and a good control on the activities of students both at school and at home.

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