

## **Correlation Between Teacher Competency With Student Learning Results (Case Study In Junior High School Nurul Islam Lumajang District East Java)**

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**Abstract:** *The purpose of this study is to determine the effect of professional competence of teachers with student learning outcomes Social Science subjects. In this study, the authors use data collection techniques of questionnaires and techniques of documentation. This questionnaire technique only sees students' perceptions of how teachers teach in the classroom. Furthermore, from the collected data is connected and analyzed with a sample of 53 students. Based on the result of research of teacher competence (according to student's point of view) according to respondent's perception including medium category, that is the answer as many as 27 students (50,94%) and the result of student learning have reaching completeness because value above criteria mask reaches 85%. While the competence of teachers with student learning outcomes (value of the exam school) is greater, it can be drawn the conclusion that: there is a relationship between teacher competence student learning outcomes. From the calculation of correlation analysis that the authors do have a positive correlation or have a strong relationship between the professional competence of teachers with student learning outcomes.*

**Keywords:** *teacher competence from student's point of view and student learning outcomes*

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### **I. Introduction**

Education is a process of interaction aims, this interaction occurs between teachers and students, which aims to improve mental development so as to become independent. In general, it can be said that education is a unit of action that allows the occurrence of learning and development. The growth and development of learners depend on two interplaying elements, the talent that the learner possesses from birth, and the environment that affects until the talent grows and develops.

Quality educational services will determine the high or low achievement of student learning outcomes. In addition, student learning outcomes relate to how much students have a strong desire to be actively involved in the learning process. A strong desire and active involvement in the learning process indicate the level or condition of student's motivation to learn.

Student learning outcomes can be influenced by various factors, including the factors from within students and factors from outside the student self [1]. the mean factor here is the change of ability it has and usually, 70% of learning outcomes are influenced by the ability of students and 30% influenced by the environment. Similarly, factors from outside the student self that is the most dominant environment in the form of quality of learning and teacher competence.

Characteristics of learning outcomes possessed by gifted students relate to consistency in completing tasks that have been given by teachers, happy to do tasks independently where they require little direction and want to learn, investigate, find more information and more quickly capture the lessons learned taught by the teacher. Gifted students have above average abilities in terms of learning, such as easy to catch lessons, have the sharpness of reasoning power, good concentration power, and so forth. Therefore, teachers who play a role in dealing with gifted students, especially for those who are placed in accelerated classes, play a more role as facilitator, while the learning responsibilities are in the learners [2].

The achievement of high learning outcomes by students cannot be separated from standard processes that display the quality of learning services [3]. For the achievement of student learning outcomes cannot be avoided by having to analyze each component that can shape and influence the learning process. So many components can affect the quality of learning, such as teachers, students, curriculum, methods, budget, facilities, evaluation, and so on. However, it is not possible to improve quality by improving each component simultaneously. This is in addition to the components that its existence is scattered, also difficult to determine

the level of relevance of each component. Among the many components, which has been considered to greatly affect the process of education is a component of teachers.

The classroom teaching system has placed the teacher in a very important place because the teacher initiates and terminates every learning activity he leads. A teacher needs to have the ability to design and implement with various learning strategies that are considered appropriate to the interests and talents as well as the level of student development including utilizing various sources and instructional media to ensure the effectiveness of learning [3]. A teacher is a person who has the responsibility of helping others to learn and behave in different ways. Thus, a teacher needs to have special abilities, abilities unlikely to be possessed by non-teachers [3].

The teacher is the human element in education. A Teacher is a human figure as a source who occupies a position and plays an important role in education [2]. Research shows that more than thirty percent of educational success indicated by indicators of student achievement is determined by the teacher. When many people question the issue of the quality of education, it is inevitable that teacher figures become the elements discussed, especially those concerning the issue of formal education in schools. This is natural because the teacher is the spearhead that directly relates to the students as subjects and learning objects. However good and ideally the educational curriculum, without being matched by the ability of teachers to implement it, then everything will be less meaningful. Therefore, to achieve the standard of the educational process, it is better to start by analyzing the teacher component [4].

There are various teacher roles that all require knowledge and skills in their implementation. Skills of teaching teachers are one type of skills that must be mastered by teachers [2]. By having the skills to teach, teachers can manage the learning process well that has implications for improving the quality of school graduates. There are six aspects that describe the skills of teaching teachers. These six aspects include reviewing previous learning, providing new material, providing training with teacher guidance, providing feedback, providing self-training to students, and reviewing material that has been taught at intervals (weekly or monthly). With these six aspects, teachers are expected to create conditions that encourage or grow and improve learning outcomes well.

Basically, every student has different learning outcomes because there are diligent students with good achievement and there are also students who are lazy with low achievement. The condition shows that student learning outcomes have not been optimal [5]. Just as happened in Junior High School of Nurul Islam Islam Lumajang East Java showed that the students' learning outcomes have not been optimal yet. It can be seen from there are still students who get the value below the Minimum Criteria that have been determined, the lack of student support books, when the teaching and learning process less concentrated students do not even pay attention to what is being submitted by the teacher. The results of this observation obtained by the authors through the results of interviews on Junior High School teachers Nurul Islam Islam Lumajang East Java.

Many factors that can affect student learning outcomes, one of which comes from teachers, because a teacher is required to have various competencies in order to run the role and function properly. Competence in question is the overall knowledge, skills, traits and personality characteristics required and can be demonstrated by a teacher in the process of teaching and learning activities to achieve maximum results.

In carrying out its duties, teachers are required to have the professional competence that is the necessary capability in order to realize itself as a professional teacher to be possessed by the teacher [3]. The Professional competence of teachers one of them can be reflected in the process of selecting and utilizing teaching methods, such as creating and designing a fun, creative and innovative learning program, which in turn can generate the spirit and learning outcomes of students to follow the learning process in accordance with the expected goals. So finally students get a good achievement [6].

Based on the background of the above problems, the authors are interested to conduct research as outlined in research entitled: Correlation Between Master Competence With Student Results in Junior High School Nurul Islam Islam Lumajang East Java.

Judging from the introduction above, the hypothesis in this study is: There is a positive correlation between teacher competence with student learning outcomes at the Junior High School of Nurul Islam Islam Lumajang East Java. And in this study, the authors limit only on how to teach teachers from the point of view of students.

## **II. Material And Methods**

The research design is done by the quantitative approach with the aim to test the hypothesis and to know the significance of the influence of the variables: the positive relationship between teacher competence with student learning outcomes at the Junior High School of Nurul Islam Lumajang East Java. The technique used in sampling in this research is by random sampling method [7]. In this study, the criteria of respondents are limited only to teachers and students of class IX.

The data used in this study is divided into two, namely primary data and secondary data. The primary data, namely data obtained directly from the respondents ie students through questionnaires or teacher competence questionnaires filled by students (the point of view of students when teachers teach in the class). While secondary data, that is data obtained from library study or other sources, here use data from School Exam Score and information from First Junior High School Nurul Islam Islam Lumajang East Java. Data analysis technique used in this research use correlation formula. Correlation is a calculation to find the relationship between two interrelated variables. The formula is as follows:

$$r_{xy} = \frac{\sum XY}{\sqrt{(\sum X^2)(\sum Y^2)}}$$

Information:

- $r_{xy}$  = A Coefficient of correlation between X and Y
- $\sum XY$  = Number of product moment of X and Y
- $\sum X$  = Student questionnaire variable is teacher professional competence
- $\sum Y$  = Student learning result variable

### III. Result

In this section, the researchers will present data from the results of research taken from a questionnaire submitted to the respondents amounted to 53.

With a total number of the questionnaire or variable X = 8.605 and respondents, 53 students, to know the average that is.

The mean score of the questionnaire was  $= \frac{8.605}{53} = 162,36$

The average value of learning outcomes taken from the value of final examination School year 2016 - 2017 is the total value of economic learning outcomes or variables Y = 4.126 divided by the number of respondents is 53.

$$= \frac{4.126}{53} 77,85$$

Data analysis is how to process raw data from the dissemination of research instruments to respondents, with the aim to answer the research hypothesis.

To obtain the necessary data in this study, the authors have used the research techniques as described in the previous chapter. The research that the authors do is to use as many as 53 samples. Questionnaires that the authors spread out consisted of 50 items for the variable X (Competence of teachers or how to teach teachers from the point of view of students). As for the variable Y (average value of School Exam Scores).

The questionnaire distributed is a closed questionnaire, meaning that respondents do not need to explain more about the answers to the questions they ask, they only answer with answers (strongly agree, agree, do not know, disagree, or strongly disagree) on the available and considered most according to his opinion. This data has an evaluation range of 5,4,3,2,1 for each of the questionnaire items.

Obtaining data results of research in the form of numbers further analyzed by the authors using statistics to obtain conclusions about the competence of teachers with the results of students of Junior High School Nurul Islam Islam Lumajang East Java, as well as to prove the hypothesis.

#### a) Picture of Professional Teacher Competence (Variable X)

Analysis of teacher competency variable data (Variable X) by using the technique as follows:

- 1) Reduce the highest questionnaire score with the lowest questionnaire score.  
 $181 - 144 = 37$
- 2) Calculate the interval by dividing the result of the lowest questionnaire score with the lowest, then divided into three (3).  
 $37 \text{ divided by } 3 = 12.33 \text{ rounded to } 12$   
So interval for high category 12 and for medium category 12 and low 12.
  - a. Scores between 170 - 181 = High category
  - b. Scores between 157 - 169 = Medium categories
  - c. Scores between 144 - 156 = Low category
- 3) calculate the number of respondents who are included in the category high, medium, low against each variable, then the percentage.

- a. Presentation of score data of calculation results from the questionnaire with N = 53 based on lowest to highest score.

**Table 1**  
**Assessment Score of Variable X Calculation Result (Teacher Competencies) from the lowest to the highest**

No.	Score	No.	Score	No.	Score	No.	Score
1	144	14	156	27	161	40	168
2	145	15	158	28	161	41	169
3	148	16	158	29	162	42	170
4	150	17	158	30	162	43	172
5	150	18	158	31	163	44	172
6	152	19	158	32	164	45	173
7	152	20	159	33	164	46	175
8	152	21	159	34	164	47	175
9	153	22	159	35	166	48	176
10	154	23	160	36	166	49	177
11	155	24	160	37	166	50	178
12	155	25	160	38	167	51	178
13	155	26	160	39	168	52	179
						53	181
						Σ	8.605

- b. Calculate the frequency and percentage of answers from 53 respondents as the authors present in the following table:

**Table 2**  
**Frequency and Percentage of Respondents Answer Against Variable X (Teacher Competency students' point of view from the way teachers teach in the classroom)**

Score	Category	Frequency	Percentage%
144 - 156	Low	14	26,42
157 - 169	Medium	27	50,94
170 - 181	High	12	22,64
Σ		53	100

From the table above can be seen that the respondents who answered high as many as 14 students (26.42%) and the answer were as many as 27 students (50.94%) while the low answer as many as 14 students (26.42%). Thus the students of Junior High School of Nurul Islam Islam Lumajang East Java assume that the competence of teachers in the medium category. So it can be concluded the picture of the competence of teachers in Junior High School Nurul Islam Islam Lumajang East Java included in the category of being.

**b) Overview of Student Results (average School Exam Score) (Variable Y)**

To see the picture of learning outcomes, first, see Criteria Graduation Minimum Secondary School Nurul Islam Islam Lumajang East Java year 2016-2017 lesson is 75 and learning outcomes are said to be complete if 85% value of learning outcomes above defined Minimum Criteria.

**Table 3**

**Data on average learning outcomes of school examinations Junior High School Nurul Islam Bades Lumajang East Java The lesson year 2016-2017 from the lowest to the highest**

No.	Score	No.	Score	No.	Score	No.	Score
1	60	14	75	27	80	40	82
2	60	15	75	28	80	41	82
3	60	16	75	29	80	42	85
4	62	17	75	30	80	43	85
5	67	18	75	31	80	44	85
6	68	19	76	32	80	45	85
7	69	20	77	33	80	46	85
8	75	21	77	34	80	47	85
9	75	22	77	35	80	48	85
10	75	23	78	36	80	49	85
11	75	24	78	37	80	50	86
12	75	25	78	38	82	51	86
13	75	26	80	39	82	52	87
						53	87
						<b>Σ</b>	<b>4.126</b>

Next, calculate the frequency and percentage of economic learning outcomes of 53 students as the authors present in the following table:

**Table 4**

**Frequency and Percentage Against Variable Y (Results of learning subject economics)**

Value Criteria Completeness Minimum	Frequency	Percentage%
< 75	7	13,21
> 75	46	86,79
<b>Σ</b>	<b>53</b>	<b>100</b>

From the table above can be seen that the value of learning outcomes (School Exam Scores) above the Minimum Exhaustiveness Criteria as many as 46 people (86.79%) and under the Criterion Completed Minimum of 7 people (13.21%). Thus the picture of the value of the learning result of the students of the Middle School of Islamic Junior High School Nurul Islam Lumajang East Java is completed because the above value of Minimum Criterion is more than 85%.

**c) The relationship between Teacher Competence (Variable X) with Student Learning Results (Variable Y)**

To know how far the relation of teacher competence (variable X) with study result of student (variable Y) writer use correlation formula with steps as follows:

- 1) Calculate teacher's competency questionnaire scores (variable X). obtained from respondents.
- 2) Incorporating student learning result data (Y variable) obtained from the average value of school exam score.

After the preparation table has been compiled, the elements needed to calculate areas listed below  $r_{xy}$ .

$$\begin{aligned} \sum X &= 8.605 & \sum Y^2 &= 323.364 \\ \sum Y &= 4.126 & \sum XY &= 669.677 \\ \sum X^2 &= 1.401.451 & \sum N &= 53 \end{aligned}$$

As for how to calculate it using Product Moment Correlation formula as shown below:

$$r_{xy} = \frac{\sum XY}{\sqrt{(\sum X^2)(\sum Y^2)}}$$

$$r_{xy} = \frac{669.677}{\sqrt{(1.401.451)(323.634)}}$$

$$r_{xy} = \frac{669.677}{\sqrt{453.557.192.934}}$$

$$r_{xy} = \frac{669.677}{673.466,55}$$

$$r_{xy} = 0,994$$

From the above calculation, it can be seen that the correlation coefficient  $r_{xy} = 0.994$  shows a strong relationship. Furthermore, to see the degree of closeness between the two variables, the authors consult with the classification of correlation r.

**Table 5 Relationship between Two Variables**

Analysis Results	Interpretation
0.70 – To the top	Have a very strong positive relationship
0.50 – 0.69	Have a positive-positive relationship
0.30 – 0.49	Have a positive-positive relationship
0.10 – 0.29	Has a low positive relationship
0.00	Has no relationship
-0.01 - -0.09	Having a negative relationship is meaningless
-0.10 - -0.29	Has a negative negative relationship
-0.30 - -0.49	Have a negative negative relationship
-0.50 - -0.69	Have a solid negative relationship
-0.70 – Down	Have a strong negative relationship

In table 5, the calculation of correlation coefficient  $r_{xy} = 0.994$  shows that the variable X (teacher competence) with variable Y (learning outcome) has a relationship with the category of "very strong positive" that lies between 0.70 - up.

While to know the relationship of r calculate with r table that is r count = 0,994, r table significance level 5% = 0,266 hence can be drawn conclusion because r count bigger than at r table hence relation of teacher competence with result of learning average value Exam School in the Junior High School of Nurul Islam Islam Lumajang East Java in the academic year 2016-2017 has a very strong relationship or relationship.

#### IV. Discussion

After performing various statistical tests on the data obtained, the authors get an idea of the competence of teachers and learning outcomes. The description can be seen from the calculation using percentage technique is: the description of the competence of teachers in Junior High School Nurul Islam Islam Lumajang East Java according to the perception of respondents including moderate, it can be seen from the results of questionnaire X- variables from 53 respondents who answered high as many as 14 students (26.42%) and the answer was as many as 27 students (50.94%) while the low answer as many as 14 students (26.42%). So it can be concluded the picture of the competence of teachers according to the respondents ie students in Junior High School Nurul Islam Islam Lumajang East Java included in the category of being. Results that have not been maximized can be seen in the questionnaire received the lowest score (score number 49). The statement is as follows: My teacher gives different treatment to the clever student. Meanwhile, the description of student learning outcomes at Junior High School of Nurul Islam Islam Lumajang East Java reached completeness, this can be seen from the value of student learning outcomes the average value of the school exam almost entirely above the Minimum Exhaustiveness Criteria of 46 people (86.79% ), and under the Minimum Passing Criteria of 7 people (13.21%), the cumulative result of the students' learning in Junior High School of Nurul Islam Islam Lumajang East Java is complete because the above value of Minimum Criterion is more than 85%. Then can be drawn conclusion based on result of calculation of correlation coefficient obtained value equal to r count = 0,994 bigger than at r table = 0,266 (5% significance level), this indicates that variable X (professional competence of teacher) with variable Y (result learn student eye economic lessons) have a very strong relationship or linkage.

**Table 6 Hypothesis testing**

Research Hypothesis	Analysis Results Hypothesis	Testing Research
There is a positive relationship between the teacher's competence (the point of view of the students) and the students' learning outcomes at the Junior High School of Nurul Islam Islam Lumajang East Java	r count $r_{xy} = 0,994$ r table signig rate of 5% = 0.266	With r table 5% significance level acceptable, because there is the relation between teacher competence (student's point of view) as a result of learning at Junior High School Nurul Islam Lumajang East Java

By looking at the results of calculations that the authors do can be explained that the competence of teachers has a strong influence to improve student learning outcomes. Based on the theory and data obtained from First Junior High School of Nurul Islam Islam Lumajang East Java, it is clear that the improvement of teacher professionalism can increase students' trust to the teacher so that it can stimulate the improvement of learning achievement result and the students' learning passion.

The results of this study are also supported by research conducted by Sri Milfayetty [8] in his research entitled "Relationship of teacher personality competence and reinforcement with student learning motivation at State Senior High School 11 Medan" concluded that there is a positive relationship of teacher personality competence and reinforcement with motivation studying students at State Senior High School 11 Medan. Annisa Fitri Rangkuti and Filia Dina Anggaraeni [9] in his research entitled "The relationship of perceptions about the professional competence of mathematics teachers with motivation to learn mathematics in high school students" concluded that there is a positive relationship between perceptions about the professional competence of math teachers with motivation to learn mathematics in students SMA.

In another study conducted by Patricia A. Jennings and Mark T. Greenberg [10], entitled "The Prosocial Classroom: Teacher Social and Emotional Competence in Relation to Student and Classroom Outcomes" concluded that there is a positive relationship in the Prosocial Class: Competence Social and Emotional Teachers with Student Results. Andaru Werdayanti [11] in his research entitled "The influence of teacher competence in the process of teaching and learning in the classroom and teacher facilities on student learning motivation" The results showed there is influence between teacher competence in teaching and learning in the classroom and learning facilities on student learning motivation. The research conducted by Ridaul Inayah et al [12] entitled "The influence of teacher competence, student learning motivation, and learning facilities on the achievement of learning economic subjects in grade XII students Social Science High School State 1 Lasem Jawa Tengah Lesson 2011/2012" The results show that teacher competence has a direct positive effect on the learning achievement of economic subjects.

## V. Conclusion

The competence of teachers in Junior High School of Nurul Islam Islam Lumajang East Java according to the perception of respondents is a medium category. The results of student learning in Junior High School Nurul Islam Islam Lumajang East Java has reached completeness because the value above the Minimum Passing Criteria reached more 85%. So the conclusion that the competence of teachers with students' learning outcomes economic subjects have interrelated relationships that affect each other.

## References

- [1]. Slameto. (2003). *Learning and Its Affecting Factors*. PT Rineka Cipta: Jakarta
- [2]. Mulyasa. (2013). *Competency Standards and Teacher Certification*. PT Remaja Rosdakarya: Bandung.
- [3]. Majid, Abdul. 2016. *Learning strategies*, Bandung, PT. Remaja Rosdakarya
- [4]. Permendikbud No 22 the Year 2016 About Basic Process of Primary and Secondary Education Appendix Permendikbud No 22 the Year 2016. BNSP
- [5]. Purwanto, Erwan Agus, and Dyah Ratih Sulistyastuti. (2007). *Quantitative Research Methods Public Administration And Social Issues*. Gava Media: Yogyakarta.
- [6]. Aqib, Zainal and Ali Murtadlo, (2016), *Collection of Creative and Innovative Learning Model*, CV Yrama Widya, Bandung
- [7]. Arikunto, Suharsimi. (2002). *Research procedure*. Rineka Cipta: Jakarta.
- [8]. Milfayetty, Sri (2009). Relationship of teacher personality competence and reinforcement with motivation to learn students in SMA Negeri 11 Medan. *Journal of analytics*, vol 1 number 1, June 2009
- [9]. Rangkuti, Annisa Fitri., and Filia Dina Anggaraeni. 2005. Perception Relationship About Professional Competence of Mathematics Teachers With Motivation Learning Mathematics In High School Students. *PSIKOLOGI*. Volume I No. 2 Desember 2005
- [10]. Jennings, Patricia A. and Mark T. Greenberg (2009). *The Prosocial Classroom: Teacher Social and Emotional Competence in Relation to Student and Classroom Outcomes*. American Educational Research Association, Review of Educational Research Spring 2009, Vol. 79, No. 1, pp. 491-525
- [11]. Werdayanti, Andaru (2008). The influence of teacher competence in teaching and learning process in classroom and teacher facility to student's learning motivation. *Journal of Economic Education UNNES* Vol 3 No.1 February, the Year 2008
- [12]. Inayah, Ridaul, et al (2013). Effect of teacher competence, student learning motivation, and learning facilities on the achievement of economics lesson on the students of class XII IPS SMA Negeri 1 Lasem Jawa Tengah Lesson 2011/2012. *Self-employment education journal*: vol. 1 no. 1 (2013) Postgraduate of Sebelas Maret University Surakarta.

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