

## The Influence of Teacher Professional Competence on Education Quality Through Infrastructure as an Intervening Variable

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### Abstract

#### Keywords:

Professional Competence, Infrastructure, Quality of Education.

Professional competence and infrastructure are still classic problems that have not been entirely resolved. This study has the aim of analyzing infrastructure as an intervening variable (Y1). The exogenous variable (X1) is professional competence, and the endogenous variable (Y2) is education quality. This research method uses a type of quantitative research with explanatory research methods. The number of samples in this study was 140 people, who were selected using the census method. The results of the hypothesis test showed that teacher professional competence directly affects the quality of education, infrastructure directly affects the quality of education, and infrastructure can mediate the effect of teacher professional competence on education quality.

### Abstract

#### Keywords:

Kompetensi Profesional, Infrastruktur, Kualitas Pendidikan.

Kompetensi profesional dan infrastruktur masih menjadi persoalan klasik yang belum sepenuhnya terselesaikan. Penelitian ini bertujuan untuk menganalisis infrastruktur sebagai variabel intervening (Y1). Variabel eksogen (X1) adalah kompetensi profesional, dan variabel endogen (Y2) adalah kualitas pendidikan. Metode penelitian ini menggunakan jenis penelitian kuantitatif dengan metode explanatory research. Jumlah sampel dalam penelitian ini adalah 140 orang yang dipilih dengan menggunakan metode sensus. Hasil uji hipotesis menunjukkan bahwa kompetensi profesional guru berpengaruh langsung terhadap mutu pendidikan, sarana prasarana berpengaruh langsung terhadap mutu pendidikan, dan sarana prasarana dapat memediasi pengaruh kompetensi profesional guru terhadap mutu pendidikan.

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## INTRODUCTION

Issues of competence, infrastructure, and quality of education are still classic issues and deserve discussion, bearing in mind that teachers and educational institutions are the guardians of the formation of the human quality of a nation. The problem of the lack of professional competence of teachers that still occurs today, even with the increase in COVID-19, has exacerbated the situation and created new problems that force educators to be creative by providing new breakthroughs in learning methods. Satriawan Salim revealed that the problem of teacher quality must be immediately handled by the government through educational institutions and education personnel. On the other hand, according to the Central Bureau of Statistics, the number of teachers eligible to teach in the 2020/2021 academic year has increased by 9.60%, or there are around 2.91 million teachers eligible to teach, of which in the 2019/2020 school year there were only 2.65 million teachers; this increase was dominated by elementary school teachers. There are 1.56 million elementary school teachers who are qualified to teach (53.91%), followed by junior high school teachers with 689,313 teachers, and finally high school teachers with 321,964 teachers who are eligible to teach. Based on these facts, there are sufficient reasons to formulate a comprehensive plan to increase the professional competence of teachers and improve the quality of education.

In addition to teacher competence, there are also problems regarding educational infrastructure in schools. Infrastructure is the main support in the ongoing teaching and learning activities in educational institutions. Strengthening school facilities and infrastructure is one of the factors that influence the process of education and learning. Facilities and infrastructure are an important part that must be considered and prepared carefully to ensure the smooth running of education and learning at any time. Without good facilities, it is difficult for schools to achieve competent results<sup>1</sup>. The lack of educational infrastructure in border areas, such as in Lingga Regency, quoted from the Independent News, there are public elementary schools and public junior high schools that are no longer suitable for use because they have never been touched by renovations and building rehabilitation since the schools were founded<sup>2</sup>. Based on this, it is necessary to pay attention again to the condition of infrastructure in remote and border areas in this country, bearing in mind that education is the responsibility of the government.

The ability of the education system to effectively direct the value of input factors in order to produce the best possible output is defined as educational quality<sup>3</sup>. There

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<sup>1</sup> Dhiviya KaniaUlhak, "Permasalahan Pendidikan Di Bidang Sarana Dan Prasarana Serta Kebijakan Inovasinya," *Kompasiana*, May 18, 2022, <https://www.kompasiana.com/dhiviya140202/6284a34cbb4486616f73ec32/permasalahan-pendidikan-di-bidang-sarana-dan-prasarana-serta-kebijakan-inovasinya>.

<sup>2</sup> Juhari, "Sarana Dan Prasarana Pendidikan Di Daerah Perbatasan Terluar Kabupaten Lingga Minim," *Independentnews*, September 29, 2022, <https://independennews.com/sarana-dan-prasarana-pendidikan-di-daerah-perbatasan-terluar-kabupaten-lingga-minim/>.

<sup>3</sup> Ari Kartiko, *Manajemen Mutu Pendidikan*, ed. Agustina Vita (Yogyakarta: Pustaka Bening, 2019).

are three indicators of the main quality of education: input, process, and output<sup>4</sup>. The quality of education is influenced by several factors, including the professional competence of teachers and infrastructure<sup>5</sup>. In Europe, it has an inherent characteristic of setting professional teacher standards; the professional profile of teachers in preschools has qualification requirements, including being able to produce specialists in their field<sup>6</sup>. In order to improve the quality of education, professional teachers are needed so as to increase creativity and new innovations in learning<sup>7</sup>. Teacher professional competence is being able to use, utilize, and develop human resources, teaching materials, and express innovation, as evidenced by the delivery of learning materials<sup>8</sup>. Teacher professional competence is very close to improving the quality of education because teachers are a reflection of educators<sup>9</sup>. There are four indicators of teacher professional competence, which include mastering the educational foundation, compiling learning programs, mastering learning materials, and assessing student learning outcomes<sup>10</sup>.

Educational facilities are everything that can be felt directly in supporting production activities in teaching and learning activities in the classroom, while educational infrastructure is everything that is indirectly felt but has an impact on the school environment, such as school yards, parks, and so on<sup>11</sup>. Facilities and infrastructure have a significant influence on the quality of education, so periodic maintenance is required for infrastructure in the educational environment<sup>12</sup>. here are

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<sup>4</sup> Yaredi Waruwu et al., "MANAJEMEN KEUANGAN DALAM MENINGKATKAN MUTU PENDIDIKAN" 5, no. 3 (2022): 440-50.

<sup>5</sup> Chairunnisa Amelia et al., "The Principal's Role as Education Supervisor in Improving Teacher Professionalism," *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam* 7, no. 1 (2022): 144-55, <https://doi.org/10.31538/ndh.v7i1.2075>.

<sup>6</sup> Natalia Melnyk et al., "The Establishment and Development of Professional Training for Preschool Teachers in Western European Countries," *Revista Romaneasca Pentru Educatie Multidimensionala* 13, no. 1 (2021): 208-33, <https://doi.org/10.18662/rrem/13.1/369>.

<sup>7</sup> Sulastri Sulastri, Happy Fitria, and Afroki Martha, "Kompetensi Profesional Guru Dalam Meningkatkan Mutu Pendidikan," *Journal of Education Research* 1, no. 3 (2020): 258-64, <https://doi.org/10.37985/jer.v1i3.30>; Nur Hasanah, "Dampak Kompetensi Profesional Guru Dalam Meningkatkan Mutu Pendidikan Madrasah Ibtidaiyah Di Kota Salatiga," *Inferensi* 9, no. 2 (2015): 445, <https://doi.org/10.18326/infsl3.v9i2.445-466>.

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<sup>9</sup> Yulia Triana Ratnasari, "PROFESIONALISME GURU DALAM PENINGKATAN MUTU PENDIDIKAN Yulia Triana Ratnasari," *Seminar Nasional*, 2019, 235-39.

<sup>10</sup> Muhammad Nurtanto, "Mengembangkan Kompetensi Profesionalisme Guru Dalam Menyiapkan Pembelajaran Yang Bermutu," *Prosiding Seminar Nasional Inovasi Pendidikan Inovasi Pembelajaran Berbasis Karakter Dalam Menghadapi Masyarakat Ekonomi ASEAN*, no. 10 (2016): 553-65, <http://www.jurnal.fkip.uns.ac.id/index.php/snip/article/viewFile/8975/6535>.

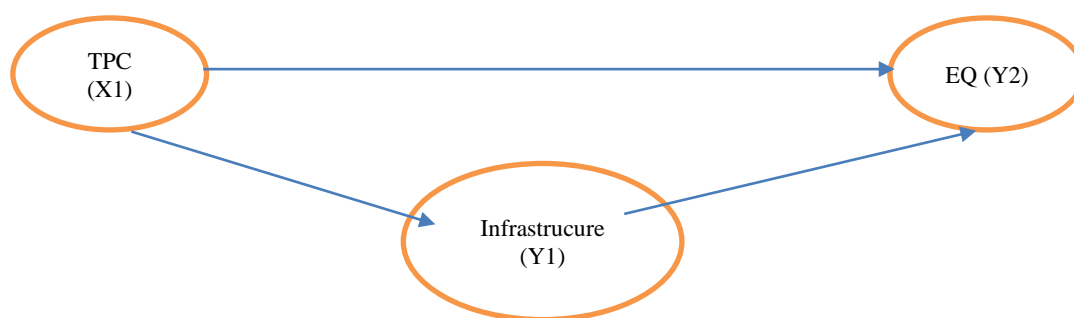
<sup>11</sup> Ahmad Sopian, "Tugas, Peran, Dan Fungsi Guru Dalam Pendidikan," *Raudhah Proud To Be Professionals : Jurnal Tarbiyah Islamiyah* 1, no. 1 (2016): 88-97, <https://doi.org/10.48094/raudhah.v1i1.10>.

<sup>12</sup> Tri Adi Muslimin and Ari Kartiko, "Pengaruh Sarana Dan Prasarana Terhadap Mutu Pendidikan Di Madrasah Bertaraf Internasional Nurul Ummah Pacet Mojokerto," *Munaddhomah: Jurnal Manajemen Pendidikan Islam* 1, no. 2 (2021): 75-87, <https://doi.org/10.31538/munaddhomah.v1i2.30>; Mildred C. Chepkonga, "Influence of Learning Facilities on Provision of Quality Education in Early Childhood Development Centres in Kenya," *International Journal of Education and Research* 5, no. 6 (2017): 15-26.

several indicators of infrastructure facilities; the first are direct facilities, indirect facilities, direct infrastructure, and indirect infrastructure<sup>13</sup>.

In this paper, we explore gaps in prior research on teacher professional competence, infrastructure, and quality of education where that prior study did not specifically analyze the variables addressed together, namely professional competence and quality of education through infrastructure. Three topics will be addressed by this study. The first is: how does the professional competence of teachers affect the quality of education? Second, how does the impact of infrastructure on the quality of education and thirdly, how does teacher competence influence the quality of education through infrastructure? This question will be answered by respondents who understand the professional competence of teachers, infrastructure, and quality of education.

Based on the description above, teacher professional competence has a very strong influence where the teacher is a mirror of education. In addition to teacher competence, infrastructure also has a close relationship in teaching and learning activities both inside and outside the classroom, as shown in Figure 1.



**Figure 1 Framework**

Based on the framework above, three answers or temporary assumptions (hypotheses) can be drawn in this study: first, teacher professional competence has an effect on educational quality; second, infrastructure has a significant influence on educational quality; and third, teacher professional competence has a significant influence on educational quality through infrastructure facilities.

**RESEARCH METHOD**

This study uses quantitative data analysis techniques and an explanatory research approach. In the survey technique, professional teacher competence is an exogenous variable, alongside educational quality, and infrastructure variables are intervening variables. Explanatory research was chosen to aim at testing hypotheses between the hypothesized variables or explaining the effect of clause relationships between variables through hypothesis testing. Hypothesis testing based on

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<sup>13</sup> Azhariah Rachman et al., "Lingkungan Kerja Terhadap Kinerja Guru" 5, no. 4 (2022): 501-13.

singarimbun is research that tries to figure out how the research variables and the formed hypothesis are related.

This research was conducted at the Ma'arif NU Talang educational foundation, which is located on Jl. Mosque Number 5, Talang, Watuagung, Kec. Prigen, Pasuruan, East Java, 67157. This place was chosen because it has a school that starts from the level of early childhood education and ends with a school education equivalent to a high school education. Besides that, it has a unique geographic location that is in a remote area but has a vision of building quality standards that are international. The total population in this study amounted to 140 people, of which the entire population will be used as a sample. This method is called the census method<sup>14</sup>.

The type of data used is quantitative data, while the data source uses primary data, and the objects of research are all teachers of the Talang Ma'arif NU Education Foundation. Data collection techniques using questionnaires distributed to respondents. The result of filling out the questionnaire is the respondent's answer, which is the teacher's statement of data on the variable being measured. The variables in this study were measured using a Likert scale of 1-5, with 1 indicating strongly disagree, 2 indicating disagree, 3 indicating neutral, 4 indicating agree, and 5 indicating strongly agree, and where 1 represents the lowest value, namely strongly disagree, and 5 points represent the highest value, namely strongly agree<sup>15</sup>.

The instrument used in the research has been tested for validity and reliability. A validity test is a measuring tool to test the validity or legitimacy of a dataset. The validity test using Pearson's product moment is carried out by correlating the value obtained from each question item with the total value. Pearson's product-moment correlation index (r) can be found using the following formula:

$$r = \frac{N(\sum X) - (\sum X \sum Y)}{\sqrt{[N\sum X^2 - (\sum X)^2] - [N\sum Y^2 - (\sum Y)^2]}}$$

Description:

r = Correlation coefficient

X = Item score

Y = Total item score

N = Number of sample (respondent)

While the reliability test is to test the level of reliability related to the consistency of the answers given from time to time, an instrument is said to be reliable if the Cronbach alpha value is greater than or equal to 0.6. The Cronbach alpha formula is as follows:

$$r_i = \left[ \frac{k}{k-1} \right] \left[ 1 - \frac{\sum ab^2}{\sigma t^2} \right]$$

$r_i$  : Instrument reliability

<sup>14</sup> Sanusi Anwar, *Metodologi Penelitian Bisnis* (Jakarta: Salemba Empat, 2011), <https://openlibrary.telkomuniversity.ac.id/pustaka/14997/metodologi-penelitian-bisnis.html>.

<sup>15</sup> Ankur Joshi et al., "Likert Scale: Explored and Explained," *British Journal of Applied Science & Technology* 7, no. 4 (2015): 396-403, <https://doi.org/10.9734/bjast/2015/14975>.

- k : Number of questions
- $\sum ab^2$  : Number of item variances
- $\sigma t^2$  : Total variances

This study uses a causality model to examine the influence of exogenous variables on endogenous variables. To test the hypothesis that will be proposed in this study, the technique used is the SEM analysis technique with the AMOS (Analysis of Moment Structure) and SPSS (Statistical Product and Service Solutions) program packages. The steps in SEM analysis are: developing a theory-based model; constructing a path diagram; converting a path diagram to a structural model; choosing an input matrix; evaluating the goodness of fit index; interpreting and modifying it.

## RESEARCH RESULTS AND DISCUSSION

### Results

A validity test is a research instrument that is assumed to be able to obtain valid data results with item analysis techniques for each item of a questionnaire, namely by correlating the scores or points of each item with a total score that is the sum of the scores for each item. The measurement method for each item is to compare the calculated R value with the R table. If it is known that the calculated R value is greater than the R table value, then the results are declared valid, and vice versa, if the R table value is greater than the calculated R value, the results are declared invalid. The following table shows the value of the T-table validity test results.

**Table 1 . Test the Validity of the X1 Variable (Professional Competence)**

Question	r Hitung	r Tabel	Description
X1.1	0.675	0.361	Valid
X1.2	0.775	0.361	Valid
X1.3	0.576	0.361	Valid
X1.4	0.522	0.361	Valid
X1.5	0.876	0.361	Valid
X1.6	0.713	0.361	Valid
X1.7	0.674	0.361	Valid
X1.8	0.538	0.361	Valid
X1.9	0.675	0.361	Valid
X1.10	0.878	0.361	Valid
X1.11	0.618	0.361	Valid
X1.12	0.523	0.361	Valid
X1.13	0.467	0.361	Valid
X1.14	0.577	0.361	Valid

Source: Primary Data processed, 2022

Based on table 1, it can be concluded that all 14 items of questions about professional competency variables are declared valid because the r-count value is greater than the r-table. So this professional competency variable can be measured in this study.

**Table 2. Y1 Variable Validity Test (Infrastructure)**

<b>Question</b>	<b>r Hitung</b>	<b>r Tabel</b>	<b>Information</b>
Y1.1	0.635	0.361	Valid
Y1.2	0.611	0.361	Valid
Y1.3	0.719	0.361	Valid
Y1.4	0.494	0.361	Valid
Y1.5	0.665	0.361	Valid
Y1.6	0.599	0.361	Valid
Y1.7	0.646	0.361	Valid
Y1.8	0.516	0.361	Valid
Y1.9	0.737	0.361	Valid
Y1.10	0.678	0.361	Valid
Y1.11	0.473	0.361	Valid

Source: Primary Data processed, 2022

Based on table 2, it can be concluded that all items totalling 11 questions about the infrastructure variable are said to be valid because the r-count value is greater than the r-table. So, this infrastructure facility variable can be measured in this study.

**Table 3. Y2 Variable Validity Test (Education Quality)**

<b>Question</b>	<b>r Count</b>	<b>r Table</b>	<b>Information</b>
Y2.1	0.638	0.361	Valid
Y2.2	0.687	0.361	Valid
Y2.3	0.732	0.361	Valid
Y2.4	0.787	0.361	Valid
Y2.5	0.738	0.361	Valid
Y2.6	0.735	0.361	Valid
Y2.7	0.683	0.361	Valid
Y2.8	0.634	0.361	Valid
Y2.9	0.831	0.361	Valid
Y2.10	0.648	0.361	Valid
Y2.11	0.393	0.361	Valid
Y2.12	0.499	0.361	Valid
Y2.13	0.579	0.361	Valid
Y2.14	0.667	0.361	Valid
Y2.15	0.721	0.361	Valid
Y2.16	0.476	0.361	Valid

Source: Primary Data processed, 2022

Based on table 3, it can be concluded that all items totalling 16 questions about the variable quality of education obtained valid results because the value of r-count is greater when compared to r-table. So the variable quality of education can be measured in this study.

Next is the reliability test; this test measures the consistency of research instruments from time to time. A data set can be declared reliable if two or more researchers on the same object produce the same data. Cronbach's alpha was calculated using Excel Statistical Analysis and SPSS 23 computer programs. The reliability of a constructor variable will be said to be good if it has a Cronbach's alpha value greater than 0.60. The following are the results of the reliability test for each variable in the table:

**Table 4**

No	Variable	Cronbach's Alpha	Information
1	Compensation (X1)	0.746	Reliable
2	Empowerment (Y1)	0.875	Reliable
3	Loyalty (Y2)	0.939	Reliable

**Reliability Test**

Source: Primary Data processed, 2022

Based on table 4, the reliability test results all have a Cronbach's alpha coefficient value greater than 0.6, so it can be concluded that all measurement concepts for each variable can be declared reliable and can be used as a reference in this study. The results of this factor loading test will show if the overall construct of the variable is one-dimensional.

**Table 5. Loading Factor Test**

Variable	Loading Factor	Loading Factor Score
<b>Exogenous</b>	Educational foundation (X1.1)	0.86
	Developing learning program (X1.2)	0.80
	Mastering learning materials (X1.3)	0.79
	Assessing student learning outcomes (X1.4)	0.78
<b>Intervening</b>	Direct facilities (Y1.1)	0.72
	Indirect facilities (Y1.2)	0.99
	Direct infrastructure (Y1.3)	0.82
	Indirect infrastructure (Y1.4)	0.98
<b>Endogeneous</b>	Input (Y2.1)	0.85
	Process (Y2.2)	0.78
	Output (Y2.3)	0.76



Based on Table 5, each indicator of each variable has a value greater than 0.5, so one-dimensionality does not occur, which means that the four indicators of professional competence are able to construct exogenous variables, in this case professional competence. The infrastructure variable, which consists of 4 indicators, is constructed by its indicators because it gets a value of more than 0.5, and the quality of education variable is formed from input, process, and output indicators.

The Full Model SEM technique is used to test previously stated causality models on various causal relationships. The suitability of the model and the causality relationship built into the model being tested will be determined through the full model analysis. The results of the Full Structural Model technique can be seen in Figure 2

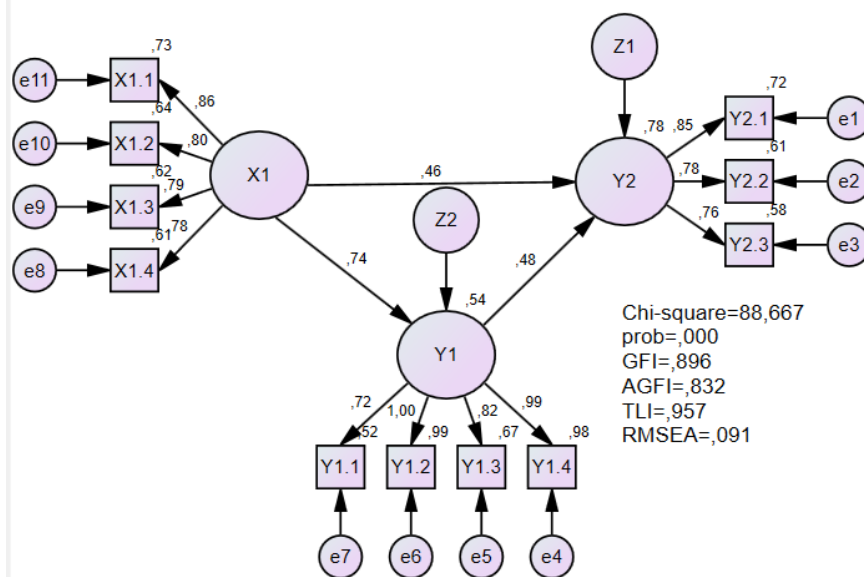


Figure 2 Full Model SEM,  
Source: Primary Data processed, 2022

Based on the results of the complete SEM model analysis, it can be seen that the standard regression coefficient, the coefficient of influence of professional competence on quality of education, is 0.46, the coefficient of influence of professional competence on infrastructure is 0.74, the coefficient of influence of infrastructure facilities on education quality is 0.54, and the coefficient of effect of infrastructure on the quality of education is 0.48.

SEM assumptions include sample size, the sample size of this study is 140 samples. Based on the total sample size, this number meets the requirements, namely a minimum of 100 samples. In addition, the results of the assessment of normality can be seen in the following table:

Table 6. Normality Test

Variable	min	max	skew	c.r.	kurtosis	c.r.
X1.1	2,000	5,000	,273	1,320	-,191	-,462
X1.2	2,000	5,000	,352	1,703	-,513	-1,240

Variable	min	max	skew	c.r.	kurtosis	c.r.
X1.3	2,000	5,000	,255	1,230	-,538	-1,299
X1.4	2,000	5,000	,244	1,179	-,544	-1,314
Y1.1	2,000	5,000	,721	3,482	,282	,680
Y1.2	2,000	5,000	,509	2,461	-,068	-,164
Y1.3	2,000	5,000	,346	1,671	-,230	-,555
Y1.4	2,000	5,000	,509	2,461	-,068	-,164
Y2.3	2,000	5,000	,351	1,698	,143	,346
Y2.2	2,000	5,000	,646	3,121	,410	,990
Y2.1	2,000	5,000	,513	2,478	,292	,704
Multivariate					69,254	24,227

Source: Primary Data processed, 2022

Based on the table above, it can be said that the data from the normality test results show that all indicators in the variables studied have a value of c.r. between -2.58 - 2.58, so that all items in these variables are normally distributed. Testing of the proposed hypothesis can be carried out based on the critical ratio value and sig level contained in the regression weight, which requires a value of  $cr \geq 2.00$  and  $sig. \leq \alpha = 0.05$  as a condition for accepting the hypothesis. The results of cr value and sig level between the hypothesized variables can be seen in table 7.

**Table 7. Hypothesis test**

			Estimate	S.E.	C.R.	P	Description
Y1	<---	X1	,860	,096	8,928	***	Significant
Y2	<---	X1	,426	,093	4,579	***	Significant
Y2	<---	Y1	,381	,073	5,255	***	Significant

Source: Primary Data processed, 2022

Based on the data obtained, it can be proven as follows:

1. The first hypothesis, the effect of teacher professional competence on education quality.  
The critical ratio value for the teacher's professional competence variable is 8.928, and education quality is 4.579; all of these variables have a critical ratio value of more than 2 as a condition for accepting the hypothesis. And all these variables have a smaller p-value of 0.05 as a condition for accepting the hypothesis. So, based on the results of the values, the first hypothesis that teachers' professional skills have a big effect on the quality of education has been tested and found to be true.
2. The second hypothesis is that infrastructure has an effect on the quality of education.

The critical ratio value for the infrastructure facilities variable is 5.255, and the quality of education is 4.579; all of these variables have a critical ratio value of more than 2 as a condition for accepting the hypothesis. And all these variables have a smaller p-value of 0.05 as a condition for accepting the hypothesis. So based on the results of the values owned test, the second hypothesis, which states that infrastructure has a significant effect on the quality of education, has been tested for truth.

3. The third hypothesis is the effect of teacher professional competence on the quality of education through infrastructure.

The results of testing this third hypothesis can be seen in the table below, which shows the direct effect and the total effect:

**Table 8. Result of Standardized direct effect**

Variable	X1	Y1	Y2
<i>Standardized direct effect</i>			
Y1	0,738	0,000	0,000
Y2	0,464	0,484	0,000
<i>Standardized total effect</i>			
Y1	0,738	0,000	0,000
Y2	0,821	0,484	0,000

Source: Primary Data processed, 2021

According to the direct and total effects, the direct effect of teacher professional competence on the quality of education is 0.738, infrastructure is 0.484, and the quality of education is 0.464, while the effect of total professional competence on the quality of education is 0.738, the quality of education is 0.821, and suggestions are 0.484. Based on the results of the total effect value, which is higher when compared to the direct effect, the third hypothesis, which states that professional competence has a significant effect on the quality of education through infrastructure, has been proven true.

## Discussion

### The influence of teacher professional competence on the quality of education

Based on the results of the hypothesis test, it was found that the educational foundation provides the greatest reflection of the teacher's professional competency variables, followed by the ability to develop learning programs, master learning materials, and assess student learning outcomes. Meanwhile, the quality of education is the result that, to form the quality of education, has the biggest reflection in the input, followed by the process and output. Professional competence is competence or special expertise in the field of teacher training to be able to provide innovation and creativity in learning. It must have an educational basis. In line with the characteristics of the respondents owned by the Ma'arif NU Talang educational foundation, the educators or teachers in this study were strata 1 graduates in the field

of teacher training. Hence, they have a good foundation or knowledge base for carrying out interesting learning innovations, such as compiling programs of learning such as preparing semester or extracurricular lesson plans.

The ability of the education system to add value for students is defined as educational quality. The quality of education will be obtained either by good input or by selecting through tests when entering the Ma'arif NU Talang educational institution. This study backs up previous research findings that the quality of student input and learning motivation influence the quality of education.<sup>16</sup>

### **Effect of infrastructure facilities on the quality of education**

The fact obtained from infrastructure facilities is that indirect facilities, which include furniture and supporting equipment, are the indicators with the greatest value in forming infrastructure, which is then followed by indirect infrastructure, including teacher rooms, health rooms, mosques/mushalla, canteen, toilets, and parking lots. Following that is direct infrastructure, which includes classrooms, library rooms, skills rooms, and laboratory rooms; and finally, direct facilities, which include office stationery, visual aids, practical tools, study books, learning media, and other items.

The importance of educational infrastructure has a major impact on the quality of education, which consists of input, processing, and output. In attracting new students, infrastructure facilities greatly impact their interest. Prospective new students, who will later be referred to as young inputs are strongly influenced by the views of their parents in choosing a school. Displaying good infrastructure and the experience of former students influences the input that will be obtained so that it can maintain the quality of education at the Ma'arif NU Talang Education Foundation. The results of previous research on infrastructure that has a significant influence on the quality of education state that without infrastructure, learning will not run optimally for both educators and students.<sup>17</sup>

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<sup>16</sup> Mia Noprika, Ngadri Yusro, and Sagiman Sagiman, "Strategi Kepala Sekolah Dalam Peningkatan Mutu Pendidikan," *Andragogi: Jurnal Pendidikan Islam Dan Manajemen Pendidikan Islam* 2, no. 2 (2020): 224-43, <https://doi.org/10.36671/andragogi.v2i2.99>; Tim Buttler, Darren George, and Kira Bruggemann, "Student Input on the Effectiveness of the Shift to Emergency Remote Teaching Due to the COVID Crisis: Structural Equation Modeling Creates a More Complete Picture," *International Journal of Educational Research Open* 2, no. February (2021): 100036, <https://doi.org/10.1016/j.ijedro.2021.100036>; Don Adams, "Defining Educational Quality," *Improving Educational Quality Project Publication*, no. 703 (1993): 1-24, [http://pdf.usaid.gov/pdf\\_docs/PNACA245.pdf](http://pdf.usaid.gov/pdf_docs/PNACA245.pdf).

<sup>17</sup> Eva Luthfi et al., "Pengaruh Sarana Prasarana Dalam Menunjang Prestasi Belajar Siswa SD Di Sekolah Indonesia Den Haag," *MODELING: Jurnal Program Studi PGMI* 8, no. 1 (2021): 52-63; Adeolu Joshua Ayeni, "Improving School and Community Partnership for Sustainable Quality Assurance in Secondary Schools in Nigeria," *International Journal of Research Studies in Education* 1, no. 2 (2012): 61-68, <https://doi.org/10.5861/ijrse.2012.v1i2.49>; Incham Manggat, Rajwani Zain, and Zakiyah Jamaluddin, "The Impact of Infrastructure Development on Rural Communities: A Literature Review," *International Journal of Academic Research in Business and Social Sciences* 8, no. 1 (2018): 637-48, <https://doi.org/10.6007/ijarbss/v8-i1/3837>.

### **The influence of professional competence on the quality of education through infrastructure.**

Infrastructure facilities can act as a bridge between professional competence and educational quality. This shows the competence of educators, precisely professional competence, which is in dire need of infrastructure support. The foundation of education—the ability to plan lessons, master learning materials, and evaluate learning outcomes—will not go well if they are not supported by infrastructure, because the support of learning facilities can increase student learning motivation and assist educators in developing and innovating more exciting learning. Based on these findings, the researcher asserted that infrastructure capable of mediating professional competency on educational quality is a novel finding in this study because previous researchers in this field did not investigate the role of infrastructure as an intervening variable.

### **CONCLUSION**

Because infrastructure can mediate between teacher professional competence and educational quality, it is hoped that to improve educational quality, we must consider not only the human resource factor but also educational infrastructure. Infrastructure facilities, such as learning media used in schools, are not only supporting teaching and learning activities in the modern era but are the main supporting elements of education so that students are happier in participating in these teaching and learning activities.

This research is a small part of the scope of human resources, so the results of this study are still felt to be necessary for further testing in the future to obtain consistent results. In addition, future researchers can add new variables to add scientific treasures in the future. This research has limitations due to the relatively small number of respondents. In addition, the distance between the researcher and the research location is relatively far, so the researcher cannot make direct observations or provide assistance when filling out the questionnaire.

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