The Determination Factors of the Education Quality of Madrassa Aliyah Pati Regency Indonesia

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Abstract: This study aims to find out and examine the factors that affect the Quality of Madrasah Education, focusing on the Leadership of Madrasa Aliyah Principals, Madrasa Aliyah Climate, Teachers' Performance in Teaching, Learning Facilities, and Community Participation and how much influence of the factors towards the quality of education in Madrasah. The design of this study is quantitative descriptive by: (1) identifying factors that affect the quality of madrasas, (2) identifying the functions of involvement of each factor, and (3) understanding the predictions of results. This study uses a survey method according to the characteristics of the variables studied. The object of his research was the Madrasa Aliyah teachers at Pati regency. Data were collected through questionnaire and observation. The population is the Madrasa Aliyah teachers who are in the Pati Regency area. In determining the sample, four sampling stages were carried out (multistage sampling), namely cluster-proportionate random sampling, simple random sampling, sampling techniques, and simple random sampling techniques. The results of research in the field and data analysis shows that the leadership of the head of the Madrasa Aliyah, the Climate of Islamic Senior High School, Teachers' Performance, Learning Facilities, and Community Participation significantly influence the quality of Madrasah education. Keywords: determination, quality, education, quantitative

1. INTRODUCTION

Leadership is a major factor for building strong communication between school and parents. School leaders have the power to "meet parents where they are" and no parents are exclusive to school life (Reppa et al., 2010). Sallis stated factors that influence school quality are facilities, leading teachers, high moral values, satisfactory exam results, specialization or vocational training, parents' encouragement, local business and community, abundant resources, application of the latest technology, good and effective leadership, attention to students' learning, adequate curriculum, or also a combination of these factors (Sallis, 2014:30; Budiharso & Tarman, 2020).

Many experts define the concept of quality. In general, 'quality' can be defined as the characteristics of a product or service determined by the *customer* and obtained through the measurement of processes and continuous improvement (Pekar, 1995:7). This opinion emphasizes the customer, that is, if a customer says something is of good quality, then the goods/services can be considered quality. Quality defined as the suitability of product use (fitness for use) to meet customer needs and satisfaction or quality as conformity to specifications. Quality is conformity with market needs or whatever the needs and desires of consumers. It is a *conformance to requirement*, which is in accordance with what is required

or standardized or quality as zero defects, perfection, and conformity to requirements (Ng, 2014).

Based on these three definitions, there are four elements that can make something say quality, namely: (1) quality includes efforts to meet or exceed customer expectations, (2) quality includes products, services, human, process and environment, (3) quality is an everchanging condition (what is considered quality now may be considered to be of poor quality at other times, and (4) quality is a dynamic condition related to products, services, people, processes and environments that meet or exceed expectations (Burgess, 1989).

Meanwhile according to Samoff (2007:53), quality implies the degree of excellence of a product or work, both in the form of goods and services. Quality is an absolute or relative concept (Sallis, 2014:51-53). The concept of *Total quality management (TQM)* considers that quality is defined by the customer in the relative quality perspective. Quality can be defined as something that satisfies and exceeds customer wants and needs. This definition is also called the quality term in accordance with perception (quality in perception) (Sallis, 2014:56; Solikhah & Budiharso, 2020a).

In the context of education, term of quality is defined the ability of schools to manage operationally and efficiently on the components related to schools, resulting in added value to these components according to the prevailing norms/ standards (Pekar, 1995:124). Whereas, Hamalik (2010:124-125) states that the quality of education can be seen in terms of normative and descriptive aspects. In the normative sense, quality is determined based on intrinsic and extrinsic criteria. Based on intrinsic criteria, the quality of education is an educational product, namely educated human beings, in accordance with ideal standards (Solikhah & Budiharso, 2020b). Based on extrinsic criteria, education is an instrument to educate a trained workforce. As for descriptive meaning, quality is determined based on the actual situation, for example the results of the learning achievement test.

In the context of education, quality refers to inputs, processes, outcomes and impacts. The quality of input can be seen from four sides, namely: (1) the condition of whether or not the input of human resources is good, such as principals, teachers, laboratory staff, administrative staff, and students; (2) whether or not material input criteria are met in the form of props, books, curriculum, infrastructure, school facilities, etc.; (3) whether or not input criteria are in the form of software, such as regulations, organizational structure, and job descriptions; and (4) the quality of input that is in the form of expectations and needs, such as vision, motivation, perseverance and ideals (Bergmann, 1996). Nilsen & Gustafsson (2016) add that the quality of education is a degree of excellence in the management of education effectively and efficiently to give birth to academic and extracurricular excellence in students who have passed a single level of education or completed certain learning programs.

Samoff (2007:280) stated that based on the results of his research state that the factors that influence the quality of education are teacher factors, study time, school management, physical facilities and the cost of education contribute significantly to student learning achievement. The availability of funds for the implementation of the education process in schools is one of the important factors to be able to meet the quality and learning achievement, where quality and learning achievement basically describe the quality of education (Solikhah & Budiharso, 2019). Manatt & Daniels (1990) states that efforts to improve the quality and expansion of education require at least three factors, namely: (1) the adequacy of educational resources in terms of the quality of education personnel, costs and learning facilities; (2) the quality of the teaching and learning process that encourages students to learn effectively; and (3) output quality in the form of knowledge, attitudes, skills, and values. So the adequacy of the source, the quality of the teaching and learning process,

and the quality of the output will be fulfilled if the support of the costs needed and education professional staff can be completed at school.

Some researchers have investigated the quality education. Bergmann (1996) investigated the quality education and the demand for education (evidence from developing countries). Samoff (2007) examined the education quality on the disabilities of aids perspectives. Focus on textbooks, not class size, poor countries is regularly told as they seek to improve education quality. Burgess (1989) focused on achieving quality education (the use of the External Examiner System in African Universities). Smith (2002) investigated the school leadership initiative (an ethically flawed project). This research considers the conception of leadership and management found in the UK government's school leadership initiative.

Based the temporary condition, the author draws a conclusion that The lack of quality education in madrasas is caused by several determinant factors including: (1) madrasa head leadership, (2) madrasa climate, (3) teacher teaching performance, (4) learning facilities and (5) community participation. Therefore, it is appropriate to examine the determinants (madrasa head leadership, madrasa climate, teacher teaching performance, learning facilities and community participation) on the quality of Madrasah education at Pati Regency.

This study aims to find out and examine the factors that affect the Quality of Madrasah Education, focusing on the Leadership of Madrasa Aliyah Principals, Madrasa Aliyah Climate, Teacher Teaching Performance, Learning Facilities, and Community Participation and how much influence of the factors towards the quality of education in Madrasah

2. METHOD

In this study quantitative descriptive research design with survey method was used (Creswell, 2012:3). The research was conducted at the region of Pati in Central Java, Indonesia. The object of the research was the Madrasa Aliyah Teachers of Pati regency. The subjects of research are teachers of Madrasa Aliyah at the Pati Regency area. In determining the sample four sampling stages were carried out (multistage sampling), namely cluster-proportionate random sampling, simple random sampling, sampling technique, and simple random sampling technique (Muhartoyo, 2007).

In the primary data collection, the participants involved were Madrasa Aliyah teachers in Pati Regency. Teachers were selected as participants in primary data collection considering the teacher as the perpetrator and having information about all the variables studied, in the collection of secondary data, the participants involved were the right principal a technically assisted by its staff. The research instrument used in this study was a questionnaire. The stages of instrument preparation are carried out through: formulating operational definitions, arranging instrument grids, developing instrument scales and scoring guidelines, compiling instrument items, and testing instruments (Akdon & Hadi, 2005:130). In the Data Analysis several stages are carried out: processing instruments, prerequisite tests, data analysis, and hypothesis testing.

3. RESULTS

In the description of the results of this study, it will be stated: (1) the results of scoring data based on variable dimensions to find out how teachers perceive Madrasah Head Leadership, Madrasah Climate, Teacher Teaching Performance, and Madrasa Aliyah education quality; (2) the results of scoring and research based on the tendency of scores

obtained by respondents on the Madrasah Head Leadership variable, Madrasah Climate, Teacher Teaching Performance, Education Quality of the Islamic Senior High School.

1. Madrasah Head Leadership

Madrash Aliyah teacher perceptions in Pati regency on Madrasah Leadership obtained scores as shown in the following table:

Table 1 The Average Propensity Variable Leadership of Madrasa Aliyah Principals (X1)

The tendency of average variable X1				
No.	D images		Average%	Category
1	Managing the instructional program	3.68	28%	Good
2	Fostering teachers and staff	3.69	29%	Good
3	Protects students	3,70	14%	Good
4	Managing financial and madrasah facilities	3.72	14%	Good
5	Establishing communication with the community around the madrasa	3.67	14%	Good
	Total		100%	
	Average	3.69		Well

From the results of the scoring showed that the Leadership Principals regency Aliyah in Pati, Central Java Indonesia in the category (with an average score of 3.69), the highest score of 3.70 (14%) on dimension of protect students, and the lowest score of 3.67 (14%) in the dimension of establishing communication with the madrasa community.

2. Climate of Madrasa Aliyah

Climate is an atmosphere that is felt by members of school organizations that arise from the fabric of a form of cooperation in which there are visions, missions and goals to be achieved having leaders as responsible for the organization and there is an organizational structure that functions as a limit of authority work that must be done by each personnel who is members of the organization of the madrash aliyah. From the results of questionnaires about the Madrasa Aliyah Climate, the data as shown in the following table are obtained:

Table 2 Average Trend of Climate Variables Madrasa Alivah (X2)

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Average Trend Variable X2					
No	Demand	Average	%	Category	
1	Support (supportive)	3.41	16%	Good	
2	Collegial	3.24	18%	Good	
3	Intimacy (intimate)	3,34	9%	Good	

4	Directive	3.32	19%	Good
5	Restrictive	3.32	19%	Good
6	Disengaged	3.35	19%	Good
	Total		100%	
	Average	3.33		Well

The results of the scoring show that the climate of the Madrasa Aliyah in the Regency of Pati, Central Java, Indonesia is in **a good category** (with an average score of 3.33), the highest score is 3.41 (16%) in the dimension **support** (**Supportive**) and **s**lowest kor 3.24 (18%) indimensional **partnership**(**collegial**).

3. Teacher's Performance in Teaching

Performance Madrasa Aliyah Teachers in the Regency of Pati, Central Java, Indonesia, after the research was carried out the data as shown in table 3.

Table 3 Average Trend Score of Variable on Teachers' Performance In Teaching at Madrasa Aliyah Teacher (X3)

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Avera	Average Trends in Variables X3				
No	Demand	Average	%	Category	
1	Ability in planning learning	3.70	37%	Good	
2	Ability to learning	3.64	42%	Good	
3	Ability in preparing assessment / evaluation of learning	3.67	21%	Good	
	Total		100%		
	Average	3.67		Well	

The results of the scoring show that the Teachers 'Performance in Teaching at Madrasa Aliyah at Pati Regency Central Java in Indonesia is in a good category, with an average score of 3.67 the highest score of 3.70 (37%) in the dimension abilityin arranging learning plans, and the lowest score of 3, 64 (42%) in the dimension of ability in learning implementation

Quality Of Education Of Madrasa Aliyah (Y)

Quality of Education Madrasah Professional professionals will be reflected in the embodiment that will ideally be seen in five things, namely: (1) Teachers who have a high fighting spirit accompanied by good quality of faith and devotion; (2) Teachers who are capable of manifesting themselves in relation to and in line with the demands of the environment and development of science and technology; (3) Teachers who have adequate quality of personal and professional competence accompanied by a strong work ethic; (4) Teachers who have adequate quality of welfare; and (5) Teachers who are creative and insightful in the future. The result shows that the Quality of Education of Islamic Senior

High Schools in the Regency of Pati, Central Java, Indonesia is in a good category, with an average score of 3.30; highest score of 3.69 (5%) in the dimension community; and slowest score 3.50 (18%) on dimension manager.

4. DISCUSSION

1. Test Requirements Analysis

In order to analyze data to test hypotheses as stated, it is necessary to first test the required requirements. The analytical requirements needed are data normality test and data linearity test.

Normality Test Normality

Test is intended to see whether the distribution of data for each variable under study is normally distributed or not. If it turns out that the distribution of data is normally distributed, then the analysis is continued with paramametric statistics and if the data distribution is not normal, then the analysis is continued with non-parametric statistics. In this study to test the normality of data distribution used Chi Square analysis, with the following provisions: If the Chi-Square-calculated price is smaller than the Chi-Square-table price ($\chi^2_{\text{count}} \leq \chi^2_{\text{tables}}$), then the data distribution is declared normal, and if the Chi-Square-calculated price is greater than the Chi-Square-table ($\chi^2_{\text{count}} \geq \chi^2_{\text{tables}}$), then the data is declared to be abnormally distributed.

a. Test for the Normality of Head of Madrasa Aliyah Leadership Data

Based on the results of the calculation of the Head of Madrasa Aliyah Leadership, the price of itung² count = 10.45. The price is then compared with the price of χ^2 tables , with dk (degrees of freedom, dk = 6 - 1 = 5. If dk = 5 and the error rate is 5%, then it gets χ^2 tables = 11.07. It turns out that the price is χ^2 count < χ^2 tables (10.45 <11.07), which means that the leadership of the Madrasa Aliyah Leadership is normally distributed, and data analysis can be continued using parametric statistics

b. Normality Test for Climate Data Madrasa Aliyah

Based on the calculation of Madrasah Climate data obtained price $\chi^2_{count} = 9.62$. The price is then compared with the price of χ^2_{tables} , with dk (degrees of freedom, dk = 6 - 1 = 5. If dk = 5 and the error rate is 5%, then it gets $\chi^2_{tables} = 11.07$. It turns out that the price is $\chi^2_{count} < \chi^2_{tables}$ (9.62 <11.07), meaning that Madrasah Climate data is normally distributed, and data analysis can be continued using parametric statistics

c. Normality Test Teaching Performance Data Teachers

Based on the calculation results of Teacher Teaching Performance data obtained price $\chi^2_{count} = 9.63$. The price is then compared with the price of χ^2_{tables} , with dk (degrees of freedom, dk = 6 - 1 = 5. If dk = 5 and the error rate is 5%, then it gets $\chi^2_{tables} = 11.07$. It turns out that the price is $\chi^2_{count} < \chi^2_{tables}$ (9.63 <11.07), means that Teacher Teaching Performance data is normally distributed, and data analysis can be continued using parametric statistics.

d. Normality Data Learning Facilities Data

Based on the calculation of Learning Facilities data the price is $\chi 2$ count = 10.90. The price is then compared with the price of $\chi 2$ tables , with df (degrees of freedom, df = 6 - 1 = 5. If dk = 5 and the error rate is 5%, then it gets $\chi 2$ tables = 11.07. It turns out that the price is $\chi 2$ count < $\chi 2$ tables (10.90 <11.07), means Learning Facilities data are normally distributed, and data analysis can be continued by using parametric statistics

e. Test for Normality of Data Community Participation

Based on the results of data calculation, Community Participation is obtained by price $\chi 2$ count = 10 , 73. The price is then compared with the price of 2 tables , with dk (degrees of freedom, dk = 6 - 1 = 5. If dk = 5 and the level of error is 5%, thenobtained2 tabeltables = 11.07 is.2 count $<\chi 2$ tables (10.73 <11.07), means that data on Community Participation are normally distributed, and data analysis can be continued by using parametric statistics

f. Test of Normality of Education Quality Data of Madrasa Aliyah

Based on the calculation of Quality Data of Educators the Madrasa Aliyah obtained a price of itung2 count = 10.95. The price is then compared with the price of $\chi 2$ tables , with dk (degrees of freedom, dk = 6 - 1 = 5. If dk = 5 and the error rate is 5%, then it gets $\chi 2$ tables = 11.07. It turns out that the price is $\chi 2$ count < $\chi 2$ tables (10.95 <11.07), meaning that the Madrasa Aliyah Education Quality data is normally distributed, and data analysis can be continued using parametric statistics.

2. Linearity Tests

One of the assumptions of regression analysis is linearity variables *independent* and variables *dipendentn*. *If it is* form a linear line ornot linear, the regression analysis cannot be continued (Sugiyono, 2008:265) . Linearity test is done by using the estimate curve/line in analysis variance. The decision criteria are if the F value calculated \leq F table, then Ho is rejected and Ha is accepted, which means the regression line has a linear pattern and if F table, then Ho is accepted and Ha is rejected, which means the regression line is not linear.

a. Linearity Test of Madrasa Aliyah Head Leadership (X_1) with Education Quality of Madrasa Aliyah (Y)

The results of the calculation of the linearity test of Madrasah Head Leadership with Madrasash Quality obtained $F_{count}=$ -0.29 and $F_{table}=$ 1.45 (at significance level $\alpha=0$, 05). It turns out that F_{count} <F_{table} (-0.29 <1.45), means that Ho is rejected and Ha is accepted. So the regression line of the Head of the Madrasa Aliyah Leadership (X1) and the Education Quality of the Aliyah (Y) Madrasah is linear in pattern.

b. Climate Linearity Test of Madrasa Aliyah (X2) with the Quality of Education of Madrasa Aliyah (Y)

The results of calculating the Madrasah Climate linearity test with the Quality of Education of Madrasa Aliyah obtained $F_{count} = -0.40$ and $F_{table} = 1.45$ (at the significance level $\alpha = 0, 05$). It turns out that $F_{count} < F_{table}$ (-0.40 <1.45), means that Ho is rejected and Ha is accepted. So the regression line for Madrasah Climate (X₂) and the Quality of Education of Madrasa Aliyah (Y) are linear in pattern.

c. Linearity Test of Teacher Teaching Performance (X3) with the Quality of Education of Madrasa Aliyah (Y)

The results of the calculation of the linearity test of Teaching Performance with Education Quality of Madrasa Aliyah obtained $F_{count} = -1.92$ and $F_{table} = 1.45$ (at the significance level $\alpha = 0$, 05). It turns out that $F_{count} < F_{table}$ (-1.92 <1.45), means that Ho is rejected and Ha is accepted. So the regression line of Teacher Teaching Performance (X₃) and the Quality of Education of Aliyah (Y) Madrasas are linear in pattern.

Table 4 Path Coefficient, Direct Influence, Total Influence and Joint Influence: X1, X2, X3 towards (Y)

Variable	Coefficient	Effect of	
		Direct	Total
X1	0,071	0,005	0,005
X2	0,054	0,003	0,003
X3	0.297	0.088	0.088
X4	0.151	0.023	0.230
X5	0.346	0.120	0.120
€1	0.696	1 to 0.516 = 0.484	-
X1, X2, X3	-	-	0.516

Because the relationship among the variables is independent and dependent, namely; Leadership of the Head of Madrasa Aliyah (X1) with the Quality of Education of Madrasa Aliyah (Y), Climate of Madrasa Aliyah (X2) with Quality Education of Madrasa Aliyah (Y), Teacher Teaching Performance (X3) with Education Quality of Madrasa Aliyah (Y). All of them are linear in pattern; the analysis can be continued using parametric statistics.

5. CONCLUSION

The conclusion can be drawn based on the above findings and analysis.

- 1. The amount of contribution of the leadership of the head of the Islamic Senior High School (X1), which directly affects the quality of Madrasah Education (Y) is $(0.071)^2 = 0.005$ or 0.5%;
- 2. The amount of Madrasah Climate contribution (X2) which directly affects the Quality of Madrasah Education (Y) is (0.054)2 = 0.003 or 0.3%;
- 3. The size of the contribution of Teachers' Teaching Performance (X3), which directly affects the Quality of Madrasah Education (Y) is (0.297)2 = 0.088 or 8.8%;
- 4. The amount of contribution of the Leadership of the Head of Madrasa Aliyah (X1), Madrasah Climate (X2), Teacher Teaching Performance (X3). Learning Facilities (X4), and Community Participation (X5), have a simultaneous effect that directly affects the Quality of Madrasah Education (Y) is (0.719)2= 0.516 or 51.6%

From the results of research in the field and data analysis, it can be concluded that the leadership of the head of the Madrasa Aliyah, the Climate of Madrasa Aliyah, and Teachers' Performance in Teaching significantly influence the quality of Madrasah education.

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