The Influence of The Availability of Learning Infrastructure on Learning Achievement Cognitive Students In PAI Subjects At SMP Islamic School Palu

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ABSTRACT
The influence of infrastructure facilities on PAI learning achievement at Islamic Middle School Palu. The background of this thesis is the observation that the infrastructure is not sufficient or inadequate, so that it will affect the learning achievements of students. The formulation of the problem in this thesis is how the effect of the availability of learning infrastructure on student achievement at Islamic Middle School Palu and Is there a significant influence between infrastructure (X) and learning achievement (Y) at SMP Islamic School Palu. The purpose of the research in this thesis is to determine the effect of the availability of learning facilities and infrastructure on student achievement at SMP Islamic School Palu and to determine the significant influence between infrastructure (X) and learning achievement (Y) at SMP Islamic School hammer. In the literature review, this thesis discusses the meaning of infrastructure, types of infrastructure, functions of infrastructure, and understanding of learning achievement, types of learning achievement, functions of infrastructure, how to measure learning achievement. This research belongs to the type of quantitative research. The data collection method used the population and sample at the research location at SMP Islamic School Palu with a total of 147 students, while the sample was taken was 73 students using Slovin's theory with an error tolerance of 5%. The results of this research and calculation prove that the results of the F test show that the Fcount value is (7.994) > Ftable is (3.99) with a significant level (α) = 0.05. Therefore, Ho is rejected and Ha is accepted, which means that infrastructure has a significant influence on student achievement in PAI subjects at SMP Islamic School Palu. The value (R) is 0.317. While the value (R Square) is 0.101 which means the contribution is 10.1% and the remaining 89.9% is influenced by other variables not examined by the author.

Keywords: Infrastructure, Student Cognitive Learning Achievement.

ABSTRACT
Influence Among means infrastructure with achievement study PAI at the Islamic Middle School School hammer . Essay this background back by results observation that means infrastructure not yet enough adequate or not enough adequate , so will influence achievement study participant educate . Formula problem in essay this is how influence availability means infrastructure learning to achievement study participant studied at the Islamic Middle School Hammer and Is significant influence Among means infrastructure (X) and achievement studied (Y) at SMP Islamic Middle School hammer. Purpose study in essay this is for know influence availability facilities and infrastructure learning to achievement study participant studied at the Islamic Middle School Hammer and For know significant influence Among Means Infrastructure (X) and achievements studying (Y) at SMP Islamic School Palu. On review References essay this discuss about definition means infrastructure, various means infrastructure, functions means infrastructure, and understanding achievement study, all kinds achievement learn, function means infrastructure, way measure achievement learn.

Study this belong to type quantitative research . Data collection methods using population and samples on site research in SMP Islamic School Hammer with a total of 147 participants educate, meanwhile sample taken as many as 73 participants educate use theory Slovin with tolerance error 5%. Result research and calculations this prove that the results of the F test are known score Fcount equal to (7.994) > Ftable of (3.99) with level significant (α) = 0.05. because it , Ho rejected and Ha accepted meaning means infrastructure have influence in a manner significant to achievement study participant educate the eyes PAI lessons at Islamic High School hammer. As for value (R) of
0.317. Whereas value (R Square) of 0.101 which means contribution by 10.1% and more of 89.9% is influenced by other variables that are not researched by the author.

**Keywords**: facilities infrastructure, achievement learn cognitive participant educate

**INTRODUCTION**

Education is one component urgent in development nation. Through good education could generated future generations who have morals, character, intelligence, skill, and power competitive as capital for going to change to more direction well, more in the current era of global competition this. Education basically no will once could separated from life society, through good education will generated source power skilled and productive people as subject at a time object in fill in development national. Arifin, (2003:71). Means education is all the necessary facilities in the learning process teach good move nor no move for achievement purpose education could walk with smoothly, orderly, effective and efficient. Suharsimi Arikunto and Lia Yuliana, (2008 :272).

Means education is means support for the learning process teach. Suharsimi Arikunto and Lia Yuliana, (2008 :273). If participant educate own interest in follow the learning process teach so could increase achievement study participant educate. Suharsimi Arikunto and Lia Yuliana, (2008:272). Achievement study is reject main measure for know success study someone. According to Barnawi & M. Arifin, (2012 :20 ) achievement study are: Based on background behind above, then writer spread it out into the two sub problems, namely: How availability means infrastructure to achievement study cognitive participant educate eye PAI lessons at Islamic Junior High School hammer. How influence availability means infrastructure to achievement study cognitive participant educate eye PAI lessons at Islamic Junior High School hammer. This research aims to know availability means infrastructure to achievement study cognitive participant educate eye PAI lessons at Islamic Junior High School hammer. The influence availability means infrastructure to achievement study cognitive participant educate eye PAI lessons at Islamic Junior High School hammer.

**RESEARCH METHODS**

Study this use type study quantitative. Study quantitative is one type activity specific research is systematic, planned, and structured with clear. According to Sugiono (2012 :11), namely: Method quantitative could interpreted as method philosophy- based research positivism. Method this used for researching populations or sample certain, data collection using instrument research, data analysis is quantitative / statistical, with purpose for test hypothesis that has set.

Based on purpose such, method this disclose exists connection Among two variable or more look for influence something variable with other variables. Study this for test influence Variable X (Means Infrastructure) to Y (Achievement Learn Participant educate). Whereas for analyze influence each variable use technique analysis simple linear regression. Study this consists from two variable that is variable free (X) ie Means Infrastructure Learning variable bound (Y) ie Achievement Learn Participant Educated at Middle School Islamic School hammer.

According to Femi Olivia (2011:73), p restoration study is peak results learn what can reflect results study participant educate to purpose learn that has set. Study results participant educate divided a number of indicators which include:

1) Cognitive (knowledge)
2) Affective (attitude)
3) Psychomotor (behavior behavior).

Meanwhile, according to Nanang Martono, (2013:66), population is whole objects that are in an area and fulfill conditions certain related with problem research, or whole unit or individual in room scope to be researched. According to Husaini (2006:181), says that what is meant by population is: all score results calculation nor measurement, fine quantitative nor qualitative, from characteristics certain about bunch complete and clear object. Sugiono (2010:117), argues that: population is the generalization area it comprises on object or possessing subject quality and
characteristics specified by the researcher for studied and then pulled in conclusion. As for who became population in study this is participant studied at the Islamic Middle School Palu, totaling 90 participants educate. Sample (Hadi, 1972) is “part from number and characteristics certain characteristics possessed by the population”. Sample is ways for zoom out mistake generalizations and samples to population, this could achieved if representative sample or truly represent population (Subrata, 1997) as expression Suharsimi (2012) in book procedure study namely: “Just Becomes reference (benchmark) when the subject not enough of 100, then more good all subject taken as sample, so his research is study population. However if total the subject more from or enough big, got taken between 10-15% or 20-25% and more depending on ability study good from facet time, energy, or funds”.

As for formula used for measure sample that is, using formula Slovin with level 95% confidence and margin of error or level significance 5% in determine size sample (n) and population (N) that have set, ie as following:

\[ n = \frac{N}{1 + N(e)^2} \]

Description:
- n = Amount sample / quantity respondent
- N = Amount population
- e = Tolerance limit error

In formula Slovin there is provision as following:
- Value e = 0.1 (10%) for population in total big
- Value e = 0.5 (5%) for population in total small

So range sample that can taken from technique Solvin is between 5-10% of population research. In determine population (N), then conducted calculation with use average. Based on formula Slovin, then method determine total sample in research this is as following:

\[ n = \frac{90}{1 + (90,0,05)^2} \]
\[ n = \frac{90}{1 + (90,0,0025) = 0,225} \]
\[ n = \frac{90}{1 + 0,0225 = 1,225} \]
\[ n = \frac{90}{1,225} = 73,4693878 \]

Based on calculation above finished sample respondent in study this is adjusted Becomes as many as 73 respondents. Thing conducted for make it easy in data processing and for results more testing. Sample taken based on technique probability sampling; a simple random sampling, where researcher give equal opportunities for every population for chosen Becomes sample done in a manner random without Pay attention to the existing strata in population.

Data collection is systematic and standard procedure for obtain the necessary data.

1. Observation

Observation as tool for collect this data many used for measure Act in demand or the process something activities that can observed good in actual situation nor in situation artificial. Execution technique observation this could conducted in a manner live that is observer is at live together investigated object and not live observations made not at the moment ongoing something the events investigated.

2. Questionnaire / Questionnaire

Questionnaire often called with data collection using the statements answered and written by the respondents. In study this method questionnaire used for obtain data regarding influence approach scientific to liveliness study participant educate. As for types questionnaire distinguished Becomes two, namely:

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a. Questionnaire closed is when question accompanied by options answers that have determined by the researcher, i.e., could shaped yes or no, it can also be shaped a number alternative or choice double.

b. Questionnaire open is when given freedom to respondent for answer question (Nasution, 1991).

The questionnaire used in study this is questionnaire with a Likert Scale model. As has been proposed by Sugiyono (2011) Likert scale is used for reveal attitudes, opinions, and perceptions somebody or group of people about phenomenon social. In scale Likert, the variable will be measured explained becomes indicator variable. Answer every instrument item that uses scale Likert have gradation from very positive until with negative. As for for results research obtained from questionnaire, author make criteria evaluation use scale likert as following:

<table>
<thead>
<tr>
<th>No.</th>
<th>Criteria</th>
<th>Score</th>
<th>Score positive</th>
<th>Negative score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very Agree</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Agree</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Not enough Agree</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Not Agree</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Very Not Agree</td>
<td>1</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Method this used for researchers could know and have data regarding rating given by each participant educate for next could pulled conclusion.

3. Documentation

Documentation is collect data with look or record something report already available. Method this conducted with look documents official as notes and books existing regulations.

**Table 1.**
(Criteria And Score Evaluation questionnaire)

Trials Instrument

1. Trial Analysis Instrument
d. Validity Test

Validity test used for measure legitimate or valid or not something questionnaire / questionnaire. Questionnaire is said to be valid if question or statements on the questionnaire capable disclose something will measured by a questionnaire (Sunyoto, 2011).

According to Arikunto (2012:135), that: validity is something showing size levels validity or validity an instrument. Instruments that are valid or validly have high validity. Conversely, an instrument that is less valid means own low validity. For obtain a valid instrument must be noticed steps in compose the instrument, that is break variable be sub variable and indicator, after that enter it to in details question. As for formula used for count from something validity from something instrument that is with use formula correlation product moment, as following:

\[
r_{xy} = \frac{N \sum \Delta X \Delta Y}{\sqrt{[N \sum X^2 - (\sum X)^2][N \sum Y^2 - (\sum Y)^2]}}
\]

Description:

\[r_{xy} = \text{Coefficient correlation Among variable X and variable Y}
N = \text{Amount respondent}\]
\[\Sigma X = \text{Amount X item score}\]
\[\Sigma Y = \text{Amount Y item scores}\]
\[\Sigma XY = \text{Amount product of X item and Y scores}\]
\[\Sigma X^2 = \text{Amount square from score item X}\]
\[\Sigma Y^2 = \text{Amount square from Y item scores}\]

Interpretation to score coefficient correlation used criteria as following:
- \(0.80 < r_{xy} \leq 1.00\) : Very High
- \(0.60 < r_{xy} \leq 0.80\) : High
- \(0.40 < r_{xy} \leq 0.60\) : Enough
- \(0.20 < r_{xy} \leq 0.40\) : Low
- \(r_{xy} \leq 0.20\) : Very low

Step next is make comparisons between \(r_{\text{count}}\) with \(r_{\text{table}}\). Following this decision testing validity instrument:
1. If \(r_{\text{count}} > r_{\text{table}}\) so instrument said to be valid.
2. If \(r_{\text{count}} < r_{\text{table}}\) so instrument said invalid.

DISCUSSION OF RESEARCH RESULTS

Table following display in column Cronbach's Alpha if Item Deleted, alpha coefficient all items in the study this more big from 0.60 up all items stated reliable.

### Table 2
(Reliability Statistics Table)

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.893</td>
<td>31</td>
</tr>
</tbody>
</table>

Table above state Cronbach's Alpha average value at study this is 0.893 > 0.60 which means all reliable items.

### Table 3
(Case Processing Summary Table)

<table>
<thead>
<tr>
<th>Cases</th>
<th>Valid</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>73</td>
<td>100</td>
</tr>
<tr>
<td>Excluded</td>
<td>0</td>
<td>.0</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100</td>
</tr>
</tbody>
</table>

a. Listwise deletion based on all variables in the procedure.

Table case processing summary above is output from reliability spss statistics viewer that states that all items totaling 73 items are 100% reliable.

1. Normality test

Normality test is one part of the requirements test data analysis or assumption test classic. Basis of taking decision normality use method Kolmogorov Smirnov SPSS 25 are; if significance > 0.05 then residual values are normally distributed, and if significance < 0.05 then residual value is not normally distributed.
Table 4  
(One-Sample Kolmogorov-Smirnov Test Table)

<table>
<thead>
<tr>
<th>One-Sample Kolmogorov-Smirnov Test</th>
<th>Unstandardized Residuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>73</td>
</tr>
<tr>
<td>Normal Parameters a,b</td>
<td>Means: 0.0000000</td>
</tr>
<tr>
<td>std. Deviation</td>
<td>16.42413707</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td>absolute: 0.098</td>
</tr>
<tr>
<td></td>
<td>Positive: 0.060</td>
</tr>
<tr>
<td></td>
<td>Negative: -0.098</td>
</tr>
<tr>
<td>Test Statistics</td>
<td>Asymp. Sig. (2-tailed): 0.098</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Test distribution is Normal.</td>
<td></td>
</tr>
<tr>
<td>b. Calculated from data.</td>
<td></td>
</tr>
<tr>
<td>c. Lilliefors Significance Correction.</td>
<td></td>
</tr>
</tbody>
</table>

From the table above is the output of One-Sample Kolmogorov-Smirnov test spss viewer that displays residual value or asymp. Sig. (2-tailed) on research this i.e. 0.078 > 0.05. So all items in the study this normally distributed.

Next to test the normality of the data using normal curve probability plot with provision if the points on the graph spread and squeezed follow around diagonal line then the data used distributed normally. As for the results of normality test data normal curve probability plot, as following:

Graph 1.

In the table above could is known that histogram display as well chart seen fulfil assumption of normality test. The histogram shows pattern normal distribution and on the normal plot graph, the data is spread out around diagonal line and follow direction diagonal line.

2. Linear Test

Linearity test is a procedure used to determine the linear status of a research data distribution. And questionnaire study this has fulfil criteria or 4 step due diligence, then Step next is look influence Among second variable use method analysis regression simple linear way _ the tally included in the linear test, ie as following:
Table 5

**Variables Entered/ Removed**

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Means infrastructure b</td>
<td>. Enter</td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Achievement study
b. All requested variables entered.

Table 6

**Summary Model**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.317 a</td>
<td>.101</td>
<td>0.88</td>
<td>16,539</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Means infrastructure
b. Dependent Variable: Achievement study

From the output above explain magnitude value (R) of 0.317. From the output obtained coefficient determination (R Square) of 0.101 which contains definition if decimalized to 10.1% then the variable X (Means infrastructure) have very influence tall to Variable Y (Achievement learning) of 10.1%, and the rest 89.9% is influenced by variables other

Table 7

( Coefficient Determination analysis Simple Linear Regression )

<table>
<thead>
<tr>
<th>Coefficient Intervals</th>
<th>Relationship Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>81.00 – 100.00</td>
<td>Very High</td>
</tr>
<tr>
<td>61.00 – 80.00</td>
<td>Tall</td>
</tr>
<tr>
<td>41.00 – 60.00</td>
<td>Enough</td>
</tr>
<tr>
<td>21.00 – 40.00</td>
<td>Low</td>
</tr>
<tr>
<td>00.00 – 20.00</td>
<td>Very Low</td>
</tr>
</tbody>
</table>

Table 8

**ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>MeanSquare</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>2173,096</td>
<td>1</td>
<td>2173,096</td>
<td>7,944</td>
<td>.006 b</td>
</tr>
<tr>
<td>residual</td>
<td>19422.164</td>
<td>71</td>
<td>273,552</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>21595.260</td>
<td>72</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Achievement study
b. Predictors: (Constant), Means infrastructure
Rule testing significance:
If $F_{count} > F_{table}$ then $H_0$ is rejected it means significant
If $F_{count} < F_{table}$ accept $H_0$ mean no significant
With level significant ($\alpha$) = 0.05
Seek score $F_{table}$ use table $F$ with formula:

$$F_{table} = F\{(1-\alpha) (dk_{Reg} [b/a]), (dk_{Res})\}$$
$$= F\{(1-0.05) (dk_{Reg} [b/a]=1), (dk_{Res}=73-2=71)\}$$
$$= F\{(0.95)(1.73)\}$$

How to search $F_{table}$: number 1 = quantifier
number 73 = denominator

$F_{table} = 3.99$
It turns out $F_{count} > F_{table}$, then $H_0$ is rejected it means significant.

From the output above is known that score $F_{count} = 7,944 > F_{count}$ is 3.99 with level significant ($\alpha$) = 0.05 then thus the regression model there is significant influence _ Among variable X (Means Infrastructure) _ and Variable Y (Achievement study).

Table 9

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>73,887</td>
<td>11,691</td>
<td>6,320</td>
<td>.00</td>
</tr>
<tr>
<td>Means infrastructure</td>
<td>.315</td>
<td>.112</td>
<td>.317</td>
<td>2.819</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Achievement study

From the output above is known that the constanta value ($a$) is 73,887, meanwhile score means infrastructure of 0.315 so equality the regression could written:

$$Y = a+bX$$
$$Y = 73.887 + 0.315.X$$

Graph 2

Next is the $F$ test used for know how influence means infrastructure to achievement study eye PAI lessons really significant or no, first $F$ test results obtained score $F_{count}$ of 7,994 > $F_{table}$ of 3.99, then $F_{count} > F_{table}$ ($7.994 > 3.99$) with level significance ($\alpha$) = 0.05 which means $H_0$ rejected and $H_a$ accepted, which means thus there is significant influence _ Among means infrastructure to
achievement study eye PAE lesson. As for score coefficient correlation (R) of 0.317. Whereas score coefficient determination or (R Square) of 0.101 which means contribution means infrastructure to achievement study cognitive participant educate eye PAI lessons at Islamic Junior High School Hammer is by 10.1% and more equal to 89.9% influenced by other variables that are not researched by the author as following teacher creativity, motivation participant still teach low, discipline less study ok, support technology information yet adequate, teacher performance is still not enough well, as well suboptimal parental support.

CONCLUSION

Based on formula problems and hypotheses proposed research as well as results research based on data analysis and testing hypothesis, then possible conclusions put forward in study this are:

1. Results Calculate simple linear regression test, shows that there is significant influence Among means infrastructure to achievement study cognitive participant educate eye PAI lessons at SMP Islamic School Palu, which is level significant could seen from first score $F_{count}$ of 7.994 > with $F_{table}$ of 3.99, then $F_{count} > F_{table}$ (7.994 > 3.99 with level significance ($\alpha$) = 0.05 which means $H_0$ rejected and $H_a$ accepted

2. The results of the hypothesis are there significant influence Among means infrastructure to achievement study eye cognition PAE lesson. Whereas value (coefficient determination) or R Square of 0.101 which means contribution means infrastructure to achievement study cognitive participant educate eye PAI lessons at Islamic Junior High School Hammer is by 10.1% and more of 89.9 is influenced by other variables that are not examined by the author is as following teacher creativity, motivation participant still teach low, discipline less study ok, support technology information yet adequate, teacher performance is still not enough well, as well suboptimal parental support.

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