

School Culture And Facilities As Predictors Of Student Learning Outcomes In Catholic Junior High Schools In North Central Timor Regency

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Abstract

Student learning outcomes are an important indicator of educational quality and are influenced by various factors related to school management and the learning environment. This study aimed to analyze the influence of principal leadership, school culture, and educational facilities and infrastructure on student learning outcomes, both partially and simultaneously, in Catholic junior high schools in North Central Timor Regency. This study employed a quantitative approach with an associative research design. The population and sample consisted of 58 teachers from three Catholic junior high schools, selected using a saturated sampling technique. Data were collected using a questionnaire that met validity and reliability requirements and were analyzed using descriptive statistics and multiple linear regression. The findings showed that principal leadership, school culture, educational facilities and infrastructure, and student learning outcomes were all categorized as very good. Partially, principal leadership did not significantly influence student learning outcomes ($p = 0.279$), while school culture ($p = 0.009$) and educational facilities and infrastructure ($p = 0.048$) had positive and significant effects. Simultaneously, the three independent variables significantly influenced student learning outcomes ($F = 21.649$; $p < 0.001$), explaining 54.6% of the variance ($R^2 = 0.546$). These findings highlight the importance of strengthening positive school culture and optimizing educational facilities and infrastructure to support improved student learning outcomes.

Keywords: Principal Leadership, School Culture, Educational Facilities and Infrastructure, Student Learning Outcomes, Catholic Junior High Schools

INTRODUCTION

Learning outcomes student is one of the indicator important in evaluate success of the educational process. Improvement quality results Study No only related with ability academic participant educate, but also with condition environment schools that shape and support the learning process. Report The Programme for International Student Assessment (PISA) 2022 shows that Indonesia's achievements in literacy reading, numeracy, and science Still be in a group low compared to participating countries. Conditions the show that improvement quality learning Still become an important agenda, especially at the level education elementary and secondary. In Indonesian context, challenges improvement results learning also not let go from inequality quality education interregional, availability facility learning, as well as quality environment study in units education.

Condition the relevant with context education in East Nusa Tenggara Province (NTT), including North Central Timor Regency (TTU). Based on observation beginning in research, still found variation in the learning process and results Study students, good interclass and between eyes lessons. Learning outcomes in study This No only understood as achievements cognitive, but also includes aspect affective and psychomotor development through the learning process. Therefore that, achievement results Study need understood as results interaction various existing factors in environment school.

A number of study show that factors at the level unit education own role in form quality learning and outcomes study. Hattie explained that leadership school can contribute to results Study through improvement quality instructions, while Hoy and Miskel put leadership and culture school as part from factor organizations that influence effectiveness school. Robinson also emphasized importance learning - oriented leadership. With thus, the head school No only operate function administrative, but also has role strategic in build vision, moving source Power schools, support teachers, and create conditions that enable the learning process ongoing in a way effective.

Besides leadership, culture school is factor important Because form values, norms, habits and patterns behavior inhabitant school. A culture that emphasizes discipline, responsibility answer, work same, commitment to learning, and relationships positive social can create a better environment conducive for involvement student in learning. In context school Catholic, culture the school also has related characteristics with strengthening values Christian. Framework study in thesis put culture school as a process that forms behavior Study students, meanwhile leadership and facilities infrastructure become part from source power that supports the educational process.

Other factors that are not lost important is facilities and infrastructure education. Availability room learning, learning media, facilities technology, libraries, laboratories,



and facility supporters other can help create environment comfortable learning and allows teachers to carry out learning in a way more effective. Adequate infrastructure also provides support physique to involvement and concentration student during the learning process. With Thus, the existence of facility education No solely functioning as complement organization school, but is part from supportive environment achievement objective learning.

In a way empirical, a number of study previously show existence connection between leadership head school, culture school, facilities infrastructure, and results study. Referenced research in thesis show that culture positive school can build habit learn and improve involvement students, while means adequate infrastructure can create atmosphere more learning conducive and supportive achievement academic. Other studies also show that various component school can in a way together contribute to results Study students.

Although thus, the relationship between factors the No always produce the same effect on each context education. Environment school, characteristics organization, sources power, as well as pattern management education can cause strength connection intervariable different. In context school private Catholics in North Central Timor Regency, research empirically which simultaneous test leadership head school, culture schools and facilities infrastructure to results Study student Still relatively limited. Three school that became location research —Mimbar Budi Middle School, Aurora Kefamenanu Middle School, and St. Joseph Middle School Maubesi — is school Catholic under the Snuna Foundation which has context values and management relative education similar. Condition the give relevant context for test return connection third factor the with results Study student.

Based on gap said, research This aim for analyze influence leadership head school, culture schools and facilities infrastructure to results Study students at Catholic Middle Schools in North Central Timor Regency, both in a way partial and simultaneous. Research This expected can give proof empirical about factors in level contributing schools to results Study as well as become base for manager schools and foundations in determine priority improvement quality education.

METHOD

Type Study

Study This use approach quantitative with type study associative. This design used for analyze relationships and influences leadership head school, culture schools and facilities infrastructure to results Study students. Variables independent in study consists of on leadership head school (X_1), culture school (X_2), and facilities infrastructure (X_3), whereas variables dependent is results Study student (Y).

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Location, Population, and Sample

Study was implemented at three Catholic junior high schools in North Central Timor Regency, namely Mimbar Budi Junior High School, Aurora Kefamenanu Junior High School, and St. Joseph Junior High School. Maubesi. Third school the is under the Snuna Foundation and has base values Christians in line in organization education. Election third schools are also based on the existence of similarities related context with leadership, culture schools and facilities supporters learning.

Population study is all teachers on the third school numbering 58 people, consisting of of 18 teachers at Mimbar Budi Middle School, 13 teachers at Aurora Kefamenanu Middle School, and 27 teachers at St. Yosep Middle School Maubesi. Because of the number population relatively small, whole member population made into respondents with technique saturated sampling (census), so that amount sample study is 58 teachers.

Variables and Instruments Study

Study use four variables. Leadership head school defined as a head process school in influence various aspect school for reach objective learning with focused on vision, culture, and empowerment community education. Culture school refers to the values, beliefs, customs and symbols that develop as well as used together as reference behavior inhabitant school. Facilities and infrastructure covers various facility education that enables the learning process ongoing in a way effective and efficient. Meanwhile that, the result Study is change ability participant educate after follow the learning process which includes aspect cognitive, affective, and psychomotor.

Main data collected use questionnaire with five- level Likert scale, namely score 5 for Strongly Agree, 4 for Agree, 3 for Disagree Less, 2 for No Agree, and 1 for Absolutely Not Agree. Instrument study consists of over 84 grains developed statement based on indicator every variable.

Besides questionnaire, research use studies documentation for obtain relevant secondary data, such as profile and structure organization school, vision-mission, teacher data, facilities infrastructure, as well as other supporting documents research. Documentation is also used as supporting data for strengthen information obtained through questionnaires and interviews.

Instrument Test

Before used in study main instrument tested try it to teachers at SMP Negeri 1 Kefamenanu who have characteristics similar with respondents study but No including in sample research. Validity test done use Corrected Item-Total Correlation, with item

criteria are declared valid if mark correlation more big of 0.30. Reliability test done use Cronbach's Alpha, with value ≥ 0.70 as criteria instrument reliable.

Test results show that instrument all over variables fulfil condition reliability. The Cronbach's Alpha value was 0.926 for each leadership head school, 0.912 for culture school, 0.930 for means infrastructure, and 0.798 for results Study student.

Data Analysis Techniques

Data analyzed use Statistical Package for the Social Sciences (SPSS). Analysis descriptive used for describe conditions of each variable based on scores and achievements indicators. Next, the analysis inferential done use multiple linear regression for test influence leadership head school, culture schools and facilities infrastructure to results Study students. The regression model used is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

with Y as results Study students, X_1 as leadership head school, X_2 as culture school, X_3 as means infrastructure, β_0 as constant, β_1 – β_3 as coefficient regression, and e as residual.

Before analysis regression done, the model is tested through assumption testing which includes normality, linearity, multicollinearity, and heteroscedasticity. Normality test using Kolmogorov-Smirnov, linearity test use mark significance linearity, multicollinearity checked through mark Tolerance and Variance Inflation Factor (VIF), whereas heteroscedasticity tested use Park method. Test results show that the model meets necessary assumptions for analysis multiple linear regression.

Testing hypothesis done through t-test for know the influence of each variable independent in a way partial and F test for know influence third variables independent in a way simultaneous. Significance level set of 5% ($\alpha = 0.05$). The amount model capabilities in explain variation results Study student determined through coefficient determination (R^2).

RESULTS AND DISCUSSION

Results

Characteristics Descriptive Variables Study

Study involving 58 teachers from Three Catholic junior high schools in North Central Timor Regency. Analysis descriptive show that all over variables study is in the very high category. Leadership head school get average value of 4.37 with achievement 87.45%; culture school of 4.38 with achievement of 87.52%; facilities and infrastructure



of 4.32 with achievement of 86.44%; whereas results Study student obtained an average of 4.29 with achievement of 85.86%.

Variables	Mean	Achievements	Category
Leadership head school	4.37	87.45%	Very high
Culture school	4.38	87.52%	Very high
Facilities and infrastructure	4.32	86.44%	Very high
Learning outcomes student	4.29	85.86%	Very high

The height score descriptive show that the teacher gives perception positive to practice leadership, culture schools, availability and management facilities, as well as results Study students. However, because the data obtained through teacher perception, achievement the need understood as evaluation subjective respondents, not as measurement objective results Study student based on mark academic or document achievements Study.

Analysis Results Regression

Testing assumptions show that the regression model fulfil condition analysis. The residuals are normally distributed with mark significance 0.052; relationship between each variable independent and results Study stated linear; and no found problem Multicollinearity and heteroscedasticity.

Multiple linear regression results produce equality:

$$Y = 1.659 - 0.178X_1 + 0.466X_2 + 0.321X_3$$

Leadership head school own coefficient regression -0.178 with beta coefficient -0.200 and value significance 0.279. Culture school own coefficient regression of 0.466 with a beta of 0.565 and a significance of 0.009. Meanwhile that, facilities and infrastructure own coefficient regression 0.321 with beta 0.373 and significance 0.048.

Variables	B	Beta	t	Sig.	Decision
Leadership head school	-0.178	-0.200	-1,094	0.279	No significant
Culture school	0.466	0.565	2,709	0.009	Positive and significant
Facilities and infrastructure	0.321	0.373	2,019	0.048	Positive and significant

In a way simultaneously, the model produces mark $F = 21.649$ with $p < 0.001$, so leadership head school, culture schools and facilities infrastructure in a way together



influential significant to results Study students. R^2 value = 0.546 show that third variables the in a way together explains 54.6% of the variation results Study students, while the remaining 45.4% related with other factors outside the model.

DISCUSSION

Influence Leadership Head School towards Learning Outcomes

Findings study show that leadership head school No influential significant in a way direct to results Study students ($\beta = -0.200$; $p = 0.279$). Findings This interesting Because in a way descriptive leadership head school precisely get very high rating, namely 87.45%. With Thus, the perception positive attitude of teachers towards leadership Not yet in a way automatic followed by an increase results Study student.

Findings the show that influence leadership to results Study possibility more complex than connection directly. Head school of course own function strategic in set direction school, coordinate source power, do supervision, and support teachers. However, the results learn in the end formed through the ongoing learning process in a way direct between teachers and students. Therefore that, quality leadership can give greater impact big if translated to in improvement teacher competence, quality learning, reinforcement culture academic and management source Power.

Interpretation This in line with discussion in thesis that places leadership head school as potential factors give influence No direct to results study. Research Nurfadillah, Lubis, and Iskandar (2026) are referred to in the thesis also shows possibility connection leadership with results Study through variables intermediary like quality learning.

With Thus, the results study No can interpreted that leadership head school No important. On the other hand, the findings show that perceived leadership Good Not yet Enough become predictor direct results Study in the research model this. Effectiveness leadership need seen from his abilities produce changes in the learning process and factors more schools near with experience Study student.

Influence Culture School towards Learning Outcomes

Culture school proven influential positive and significant to results Study students ($\beta = 0.565$; $B = 0.466$; $p = 0.009$). This means that the more positive culture school, increasingly high yields Study students as perceived by teachers. Culture school is also a variables with mark the largest beta coefficient in the model, so that in a way relatively own strongest contribution compared to two predictor other.

In a way descriptive, cultural school get average score of 4.38 or 87.52%. Fifth indicators — values together, belief and commitment to objective education, habits and patterns behavior positive, symbols and traditions school, and climate a conducive and character -based school — all of it is in the very high category.



Findings the show that culture school No just a set formal rules, but is environment social that forms habits and behavior inhabitant school. A culture that emphasizes discipline, responsibility answer, work same, appreciation to fellow human beings, as well as commitment to objective education can create supportive conditions involvement student in learning. In context school Catholic values are also intertwined with formation character and values Christians who become part from identity school.

Research result This in line with study Rahayu and Iskandar (2021) show this contribution culture school to performance Study students. The thesis also refers to Deal and Peterson (2016), who view culture school as pattern values, beliefs, traditions and customs that become guidelines behavior inhabitant school. With Thus, the results empirical study strengthen view that culture school is mechanism important thing that connects life organization school with experience Study student.

Findings This at a time give implications important for management school. Improvement results Study No Enough done through intervention academic only, but need accompanied by strengthening supportive habits and values learning. In other words, culture consistent learning can become instrument managerial for build supportive environment achievement results Study.

Influence of Facilities and Infrastructure towards Learning Outcomes

Facilities and infrastructure are also proven influential positive and significant to results Study students ($\beta = 0.373$; $B = 0.321$; $p = 0.048$). Coefficient positive show that improvement quality facilities and infrastructure tend followed improvement results Study student.

In a way descriptive, facilities and infrastructure obtained an average of 4.32 with the achievement is 86.44% and is in the very high category. Completeness means physique get achievement of 87.59%, condition facilities 85.86%, availability of learning media 85.52%, suitability with need learning 85.17%, management and utilization facilities 87.59%, as well as management facilities 86.90%.

The results show that facility education is part from an environment that enables the learning process ongoing in a way more effective. Study space, learning media, and facility supporters can give condition supportive physical concentration and involvement student at a time expand teacher choice in implementing learning strategies.

Findings This consistent with study Wulandari and Muhiddin (2020), Putri and Wibowo (2021), and Sari, Ahmad, and Harris (2022) who in thesis show connection positive between means infrastructure and results Study student.

However, the existence of facility solely no ensure improvement results learning. Effectiveness means infrastructure depending on suitability facility with need learning, convenience access, maintenance, and the teacher's ability to utilize it in the learning



process. Because that, policy procurement facility need followed by appropriate utilization and management strategies so that the investment means education produce impact real pedagogical.

Influence Leadership, Culture Schools and Infrastructure in a way Simultan

Simultaneous test results show that leadership head school, culture schools and facilities infrastructure in a way together influential significant to results Study students ($F = 21.649$; $p < 0.001$). The R^2 value of 0.546 indicates that the model is capable explains 54.6% of the variation results Study student.

Findings This show that results Study No appropriate understood as consequence from One factor single. Third variables own different functions in ecosystem school. Leadership provide direction and coordination, culture school form norm as well as supportive behavior learning, whereas means infrastructure provide support physical and instrumental for implementation learning. Interaction all three create condition schools that are overall support the educational process.

The results in line with study Wahyuni, Darmono, and Usman (2020) showed that that various component organization school in a way together contribute to results learning. findings this also strengthens perspective input–process–output in education: leadership and facilities infrastructure can viewed as part from input and support organization, whereas culture school become part from the process that forms behavior as well as environment learn, with results Study as one of the outputs of education.

Although thus, the R^2 value of 0.546 also shows that 45.4% variation results Study Not yet can explained by the model. That is, the increase results studying at the schools studied also has the potential influenced by factors others, such as teacher competence, learning strategies, motivation Study students, conditions family, individual characteristics of students, and factors psychological. Therefore that, the result study This No support view that repair leadership, culture schools and facilities infrastructure just Already Enough For explain all over variation results Study student.

CONCLUSION

Study This show that results Study Students at three Catholic junior high schools in North Central Timor Regency were influenced by a combination of factor leadership head school, culture schools and facilities infrastructure. In general partial, leadership head school No influential significant to results Study students, while culture schools and facilities infrastructure influential positive and significant. In terms of simultaneous, third variables the influential significant to results Study student with ability explains 54.6% of the variation results Study.

Findings the show that culture school is factors that have contribution relatively strongest in the model, so that strengthening values, habits, discipline, work the same, and climate conducive school need become part important from the improvement strategy quality learning. On the other hand, the facilities and infrastructure need No only available, but also managed and utilized in accordance need learning. No significance influence direct leadership head school show that quality leadership Not yet Of course produce improvement results Study in a way directly, but potential Work through the process or factor school other.

The implication is that the manager schools and foundations need develop approach improvement quality that is integrated through strengthening culture school and optimization facility learning, accompanied by improvement - oriented leadership quality of the learning process. Because research This use teacher perception as size results study, research furthermore recommended combine perception respondents with the results data Study students who are objective as well as consider other variables that have not been covered in the model.

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