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# The Effect of School Literacy Policy, Literacy Programs, and Literacy Instruction on School Literacy Culture: A Study of Successful School Literacy Movement

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## Abstract

Since 2020, Yogyakarta has been named the region with the highest literacy rate in Indonesia. Based on observations and interviews, Yogyakarta's excellence in realizing a school literacy culture is due to three aspects: school literacy policy, literacy programs, and literacy instruction. This study uses a quantitative approach with a correlation research design. This study aims to analyze the relationship and strength of the influence of school literacy policy, literacy programs, and literacy instruction on the realization of school literacy culture. This study involved 312 elementary school principals in Kulon Progo, Bantul, Gunung Kidul, Sleman, and Yogyakarta City. The data was analyzed using SPSS 26 and the SMART-PLS application. The results showed that school literacy policy (0.730), literacy programs (0.703), and literacy instruction (0.794) had a strong relationship (positively correlated) with school literacy culture. Linear regression analysis showed that school literacy policy, literacy programs, and literacy instruction affected the realization of school literacy culture by 53.3%, 49.4%, and 63.1%, respectively. Simultaneously, these three variables affect the realization of school literacy culture by 85.6%, while the remaining 14.4% is influenced by other variables outside the variables studied. These variables might be facilities, adequate reading materials, motivation of the school community, cooperation with parents, evaluation by the principal and education office, and others.

**Keywords:** Literacy Instruction, Literacy Programs, School Literacy Culture, School Literacy Policy.

## Introduction

Literacy comes from the Latin "literatus," which means one who learns. Literacy means breadth of knowledge/insight as a positive impact on learning habits. Why is literacy synonymous with reading and writing? These two activities are generally done while learning, done for learning, and signify that someone is learning. Another reason is that broad insight and knowledge can only be realized through reading and writing (1, 2). UNESCO defines literacy as the ability to identify, understand, and apply information obtained from print and written sources in various contexts (3). Literacy is important in the educational context as it is the initial foundation for students' intellectual, social, and emotional development (4). Some reasons why literacy is important in education are: literacy is the basis for learning (5, 6), literacy improves critical thinking (7), literacy promotes independent learning (8), literacy improves communication skills (9), literacy improves academic achievement (10), literacy is a solution to overcome educational disparities (11), and literacy helps students be adaptive to technological developments (12). Literacy also plays an important role in improving people's quality of life (13). The more literate people are, the greater their opportunity to access education and improve skills, which can lead to better jobs (14). Economic factors are also involved here. By getting better jobs, income levels also increase, which indirectly improves living standards. Literacy also helps people to adapt to technological developments that are crucial to mastering the modern world (12). Social aspects such as marginalized communities and issues of inequality can be addressed sustainably through literacy (15). Even mental



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health, which is common in individuals who find it difficult to adapt to change and work pressures, can be improved with the ability to process information and communicate effectively (16, 17). The importance of literacy in improving the quality of human life is highlighted by the World Economic Forum, which places "literacy" as the first skill that must be mastered among 16 21st-century skills (18). Literacy is positioned as a fundamental skill needed to learn and master other areas of life such as science, mathematics, ICT, finance, social, cultural, and civic. In fact, one of the Sustainable Development Goals for "Quality education" is that by 2030, all youth and most adults, both men and women, will have acquired literacy and numeracy skills (19).

In Indonesia, efforts to improve community literacy are implemented through the National Literacy Movement (NLM) program launched in 2017. This program consists of 3 types: the School Literacy Movement (SLM), the Family Literacy Movement (FLM), and the Community Literacy Movement (CLM) (20). This research is limited to aspects related to SLM. SLM is a systematic effort to integrate literacy into school culture through daily activities, curriculum integration, and collaborative participation of all stakeholders (students, teachers, parents, and the community). More than just basic reading and writing skills, SLM aims to build a literate school environment where everyone can access, analyze, evaluate, and use information effectively. The long-term goal of SLM is to shape Indonesian students into lifelong learners in order to improve the quality of life of Indonesian citizens (21–23).

Since 2020, Yogyakarta Province has been named the region with Indonesia's highest literacy rate. This achievement confirms Yogyakarta's existence as a student city in Indonesia. The Community Literacy Development Index (CLDI), Reading Interest Level (RIL), and Human Development Index (HDI) of Yogyakarta Province are far above the national average and outperform the CLDI, RIL, and HDI of 35 other provinces. In 2020, the CLDI, RIL, and HDI of Yogyakarta Province were 18 (high), 65.73 (high), and 79.95 (high), respectively, while the national CLDI, RIL, and HDI were only 12.93 (moderate), 55.74 (moderate), and 72.81 (high). In 2023, the CLDI, RIL, and HDI of DIY Province are 17.88 (high), 73.27 (high), and 81.09 (very high), while the CLDI, RIL, and HDI nationally are only 14.59 (moderate), 66.77 (moderate), and 74.39 (high). The complete CLDI, RIL, and HDI values for the national level and six provinces in Indonesia are presented in Table 1 (CLDI score calculation system for 2020 and 2021 used the old format).

**Table 1:** National CLDI, RIL, and HDI Scores and 6 Provinces in Indonesia

| Year | National | Yogyakarta | Central Java | West Java | Central Sulawesi | Papua | West Papua |
|---|---|---|---|---|---|---|---|
| Community Literacy Development Index (CLDI) | | | | | | | |
| 2020 | 12.93 | 18.00 | 15.54 | 13.48 | 8.09 | 5.87 | 10.5 |
| 2021 | 13.54 | 21.85 | 16.33 | 14.64 | 10.93 | 6.71 | 10.41 |
| 2022 | 64.48 | 83.63 | 64.40 | 63.02 | 53.96 | 20.02 | 37.58 |
| 2023 | 68.19 | 85.09 | 74.36 | 72.73 | 57.96 | 47.57 | 54.29 |
| Reading Interest Level (RIL) | | | | | | | |
| 2020 | 55.74 | 65.73 | 61.88 | 62.84 | 49.85 | 44.02 | 50.54 |
| 2021 | 59.52 | 70.55 | 68.3 | 65.34 | 50.11 | 47.43 | 51.44 |
| 2022 | 63.9 | 72.29 | 70.96 | 70.1 | 56.86 | 55.93 | 54.81 |
| 2023 | 66.77 | 73.27 | 71.31 | 70.47 | 61.28 | 60.93 | 59.30 |
| Human Development Index (HDI) | | | | | | | |
| 2020 | 71.94 | 79.95 | 72.88 | 72.61 | 69.55 | 60.44 | 65.09 |
| 2021 | 72.29 | 80.22 | 73.17 | 73.96 | 69.79 | 60.62 | 65.16 |
| 2022 | 72.91 | 80.65 | 74.80 | 74.63 | 70.28 | 65.74 | 65.26 |
| 2023 | 73.55 | 81.09 | 75.39 | 75.44 | 70.45 | 67.27 | 66.16 |

Based on data in Table 1, an increase in CLDI scores in each province and nationally can generally affect the increase in RIL scores, while an increase in RIL scores in each province and nationally significantly affects the increase in HDI scores. This data further confirms that community literacy positively

impacts on improving the quality of life in the community.Yogyakarta province is the region with the highest reading interest level and the highest community literacy development index in Indonesia. Meanwhile, the provinces of Central Sulawesi, Papua, and West Papua are the regions with the lowest reading interest level and the lowest community literacy development index in Indonesia. The implementation of the SLM between Yogyakarta and Papua and West Papua is very contrasting. Papua and West Papua are underdeveloped regions with very limited literacy facilities. Elementary schools in Papua and West Papua are very simple, lacking libraries or adequate reading materials. Only a few schools have implemented SLM. Meanwhile, Yogyakarta has been the most literate region in Indonesia for four consecutive years. This achievement is undoubtedly linked to the successful implementation of the SLM. Several components of the CLDI and RIL assessments are part of the SLM, such as the presence of school libraries to support literacy activities, the availability of reading materials appropriate to students' levels, the reading habits of school community members, and school programs to improve students' reading and writing skills (24–27).

The literacy culture in elementary schools in Yogyakarta Province is well-built. A fundamental study on literacy shows that 81.2% of elementary school students in Yogyakarta stated that they like reading books and literary works, with the duration of reading varying between 1 to 3 hours/day (28). The Yogyakarta Province Regional Planning and Development Agency reports that there are 1423 libraries in public primary schools, each with an adequate library. These schools are vying for "A" accreditation from the National Library of Indonesia (29). Research in several elementary schools in Yogyakarta shows that reading activities have become a habit among students (30).

Observation results, as shown in Figure 1, indicate that students often spend their breaks reading books in the library, reading garden, and classroom reading corners. After buying food at the canteen, many students sit in the reading garden enjoying their food while reading books. During class transition, students also often relax by reading books in the classroom reading corner. Even students who finish their assignments early are allowed to sit and relax in the reading corner while waiting for their friends. Each class has an attractive reading corner with an adequate collection of books. Every week, all students and teachers read in pairs in the school area, followed by sharing the contents of the book with their partners. Reading together is very important to ensure that all members of the school feel the spirit of literacy (22). In addition, the school also has literacy extracurricular activities such as writing guidance, storytelling, and reading aloud.

**Figure 1:** Student Reading Activities in Classroom Reading Corner


**Figure 2.** Students' Work is Displayed on the School Wall Magazine

The school environment is rich in text. Various types of text are posted in every corner of the school to encourage students to read. Students' literary works are also posted on the school and class wall magazine (Figure 2) so that other students can read and observe them. This method also serves as a form of appreciation for students' work. To realize a school literacy culture, maximum efforts are needed on several components: a collaborative environment that encourages a willingness to learn (31), schools have various types of planned literacy programs (32), there are literacy activities outside of school, school principals, teachers, and administrators become literacy role models, there is a representative library as a provider of reading materials and information sources for all school residents (33, 34). Moreover, to foster the spirit of literacy among school residents, school principals must conduct literacy competitions and reading challenges and award students and teachers who excel in literacy. Efforts to realize school literacy culture also need to be supported by improving the quality of human resources. School principals, teachers, and education staff need to understand the importance of school literacy culture and how to realize it. The goal is for them to actively participate and take a role in supporting and directing student literacy activities (35). The pedagogy literacy skills of the teaching staff also need to be improved to become competent literacy instructors in teaching reading, writing, and speaking (34, 36). Facilities and infrastructure are an inseparable part of ensuring the implementation of various school literacy programs. Realizing a school's literacy culture takes a long time. The literacy culture must reflect the reading and writing activities that become habits. This certainly cannot be created in a short time. Every habit in a formal environment generally starts with binding rules. Gradually, things that must be carried out based on these rules will become routines (37). School principals need to formulate several policies that require school residents to carry out various literacy activities such as reading books during recess, teachers integrating literacy strategies in learning, visiting and borrowing books in the library, or producing multiple writings as teaching products that will be published in school wall magazine (38). In the past two years, we have observed the literacy culture created in elementary schools in Yogyakarta Province. Looking at what we have found in the field, it is only natural that Yogyakarta has been designated as the region with the highest literacy rate and has become a reference for implementing SLM in Indonesia. Among the aspects that influence the realization of a school literacy culture, we see the strength of Yogyakarta Province lies in the literacy policy issued by the Education Office that applies to all elementary schools, followed by various literacy programs, as well as the competence and responsibility of teachers and librarians in providing literacy guidance to students. Therefore, this study aims to explore the strength of the relationship between school literacy policy, literacy programs, and literacy instruction to realize a school literacy culture. This study is important because no empirical research has explicitly examined the aspects that make Yogyakarta Province excel in realizing a school literacy culture.

This study is limited to implementing SLM in several aspects as an effort to realize a school literacy culture in elementary schools in Yogyakarta Province. It focuses on reading and writing literacy. Although students learn about culture and use technological devices in literacy activities, the main objective remains to improve reading and writing skills. This study does not discuss digital literacy/ICT literacy and cultural literacy.

# Methodology

## Research Design

This study adopts a quantitative approach. The quantitative approach investigates cause and effect and uses statistical data to prove or refute the hypothesis (39). The research design used is correlation. Correlation is interpreted as a relationship that is formed. Correlation is a study that aims to determine the relationship and level of relationship between two or more variables without any effort to influence the variable so that there is no manipulation. Two or more variables are said to be correlated if a change in one variable will be followed by a change in the other variable regularly in the same direction (positive correlation) or opposite (negative correlation) (40). By knowing the relationship and level between variables, researchers can develop certain variables to increase the productivity of other variables. As shown in Figure 3, this study conducted a statistical analysis to reveal the level of relationship formed between the variables of school literacy policy, literacy program, and literacy instruction toward the realization of school literacy culture. This analysis is important so that primary schools in Yogyakarta and other regions in Indonesia and even abroad can maximize the implementation of school literacy policy, literacy programs, and literacy instruction by considering their level of influence in realizing a school literacy culture.

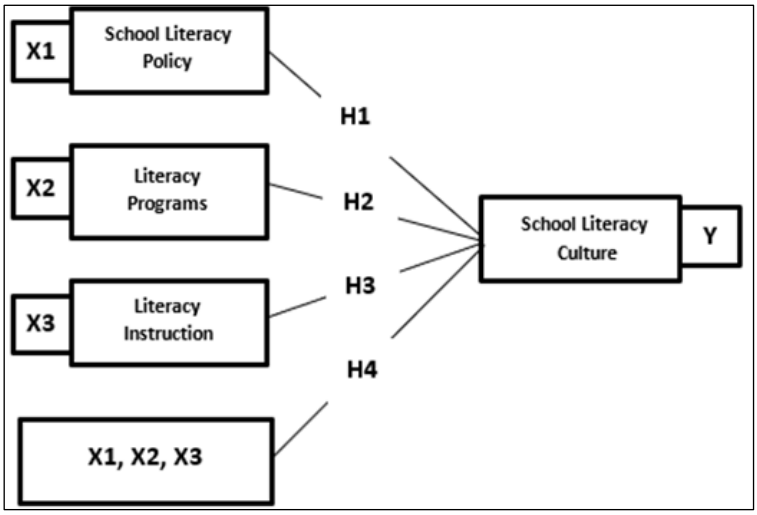


**Figure 3:** Research Framework

Based on the above framework, this study needs to prove four hypotheses. Hypothesis 1 "There is a significant positive relationship between school literacy policy and school literacy culture"; Hypothesis 2 "There is a significant positive relationship between literacy programs and school literacy culture"; Hypothesis 3 "There is a significant positive relationship between literacy instruction and school literacy culture"; Hypothesis 4 "There is a simultaneous significant positive relationship between school literacy policy, literacy programs and literacy instruction and school literacy culture".

## Participants

The research population comprises all public elementary schools in Yogyakarta Province, totaling 1423 schools. Meanwhile, 312 schools were used as samples across five districts/cities: Kulon Progo, Bantul, Gunung Kidul, Sleman, and Yogyakarta City. The sample determination technique used the Slovin formula, with a significance level of 5% ($e$ = 0.05). The sampling calculation is presented in Table 2, while the sample's characteristics are presented in Table 3.

**Table 2:** Sample Calculation

| Regency/City | Number of Schools | Percentage | Slovin | Rounding |
|---|---|---|---|---|
| Kulon Progo | 274 | 19,25 | 60,06 | 60 |
| Bantul | 281 | 19,75 | 61,62 | 62 |
| Gunung Kidul | 405 | 28,46 | 88,79 | 89 |
| Sleman | 374 | 26,28 | 81,99 | 82 |
| Yogyakarta City | 89 | 6,26 | 19,53 | 19 |
| Total | 1423 | 100 | | 312 |

**Table 3:** Characteristics of Sample

| Regency/City | Accreditation | | | Long Implementing SLM (years) | | | |
|---|---|---|---|---|---|---|---|
| | A | B | Sum | 7 | 6 | 5 | Sum |
| Kulon Progo | 45 | 15 | 60 | 41 | 12 | 7 | 60 |
| Bantul | 46 | 16 | 62 | 46 | 11 | 5 | 62 |
| Gunung Kidul | 67 | 22 | 89 | 53 | 21 | 15 | 89 |
| Sleman | 65 | 17 | 82 | 51 | 18 | 13 | 82 |
| Yogyakarta City | 17 | 2 | 19 | 13 | 6 | - | 19 |
| Total | 240 | 72 | 312 | 214 | 68 | 40 | 312 |

## Data Collection

The data used is primary data. Primary data is data obtained directly from the first source without going through an intermediary, allowing research results to be more accurate because the data is reliable (41, 42). The research data was collected through an online questionnaire (via Google Forms) distributed to 312 school principals in Kulon Progo, Bantul, Gunung Kidul, Sleman, and Yogyakarta City. In doing so, we enlisted the help of the Education Office in each district/city to send the questionnaire to the selected schools, so all 312 questionnaires sent were returned.

## Measures

The questionnaire distributed consisted of 27 question items divided into four variables, namely School Literacy Policy (SP) 7 items; Literacy Programs (LP) 8 items; Literacy Instruction (LI) 5 items; and School Literacy Culture (SLC) 7 items. The principal answers each question using a Likert scale with an interval of 5 points (5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, and 1 = strongly disagree). The questionnaire items were developed based on actual conditions in elementary schools in Yogyakarta Province, in terms of literacy policy, literacy programs, literacy instruction, and literacy culture in the school environment.

# Results

## Validity Test

The validity test aims to determine whether the data obtained can measure what should be measured or reveal information precisely from the variable being measured. The data validity test uses the Pearson Product-Moment test based on a significance level of 5% (0.05). If the Sig (2-tailed) smaller than (<) 0.05, the data is valid; otherwise, if the Sig (2-tailed) value greater than (<) 0.05, the data is invalid (43–45). Table 4 presents a descriptive analysis of each item of the SP, LP, LI, and SLC variables. The analysis results show that the data for each variable item meets the validity requirements because the Sig. (2-tailed) values of all variable items < 0.05.

**Table 4:** Descriptive Statistics of Questionnaire Items

| Variable | Code | Questionnaire Item | N | Mean | Sig.(2-tailed) | Skewness | Kurtosis |
|---|---|---|---|---|---|---|---|
| SP | SP1 | Students and teachers must read books in the reading corner during breaks and changes in class hours. | 312 | 4.30 | 0.000 | 0.07 | -0.06 |
| | SP2 | Every day, students are required to read books at home for at least 30 minutes, accompanied by | 312 | 3.84 | 0.000 | -0.07 | 0.13 |

| Variable | Code | Questionnaire Item | N | Mean | Sig.(2-tailed) | Skewness | Kurtosis |
|---|---|---|---|---|---|---|---|
| | | parents, and make a summary in the reading journal. | | | | | |
| | SP3 | The school assigns a reading or writing punishment for students who do not do their homework. | 312 | 3.60 | 0.000 | 0.10 | -0.24 |
| | SP4 | Teachers and students must make a travel report published in the schoolyard if they are absent for travel purposes. | 312 | 4.19 | 0.000 | -0.08 | 0.01 |
| | SP5 | Students and teachers must visit the library once a week and summarize the books they have read in a reading journal. | 312 | 4.09 | 0.000 | 0.03 | 0.08 |
| | SP6 | Every student is required to borrow books from the library according to the period determined by the school, which aims to foster the habit of reading at home. | 312 | 4.39 | 0.000 | 0.23 | -0.21 |
| | SP7 | Students and teachers must carry out morning literacy for 15 minutes before learning, followed by a question-and-answer activity about the book's content. | 312 | 4.26 | 0.000 | 0.06 | 0.05 |
| LP | LP1 | Schools provide portfolios as a medium for documenting the development of students' reading and writing skills. | 312 | 4.05 | 0.005 | 0.03 | 0.00 |
| | LP2 | Schools hold reading, storytelling, and writing competitions to raise students' enthusiasm for literacy. | 312 | 4.27 | 0.003 | 0.19 | -0.03 |
| | LP3 | Students and teachers visit regional libraries and the nearest museum to broaden their knowledge at least once a semester. | 312 | 4.67 | 0.000 | 0.30 | -0.25 |
| | LP4 | At least once a week, the school holds a literacy performance in the yard, where students display their literacy talents through storytelling, poetry, drama, monologue, etc. | 312 | 4.26 | 0.001 | 0.07 | -0.03 |
| | LP5 | The school provides literacy training for teachers to be skilled in learning the whole language. | 312 | 3.94 | 0.000 | 0.11 | -0.22 |
| | LP6 | The school appreciates students and teachers who excel in literacy or actively read books in the library and class reading corner. | 312 | 4.38 | 0.038 | -0.24 | 0.29 |

| Variable | Code | Questionnaire Item | N | Mean | Sig.(2-tailed) | Skewness | Kurtosis |
|---|---|---|---|---|---|---|---|
| | LP7 | The principal, teachers, students, and administrators organized a writing activity together, which resulted in a book of short stories or poems. | 312 | 4.46 | 0.000 | -0.05 | 0.07 |
| | LP8 | The school offers extracurricular literacy programs that students can choose based on their interests and talents, such as storytelling, poetry/rhyming, writing poetry, writing stories, monologues, speeches and MC, acting/drama, pantomime, and junior reporters. | 312 | 4.63 | 0.000 | 0.15 | 0.20 |
| LI | LI1 | Teachers assist students who are not yet fluent in reading and writing outside of learning. | 312 | 4.09 | 0.000 | -0.13 | -0.14 |
| | LI2 | Principal, teachers, and librarians become students' literacy partners, participate in reading activities together, and exchange ideas regarding the contents of books. | 312 | 4.16 | 0.000 | 0.20 | 0.21 |
| | LI3 | The school implements extracurricular literacy activities to facilitate students' interests and talents, such as training in reading aloud, speed reading, comic story writing, poetry writing, short story writing, storytelling, poetry, monologue, speech and MC. | 312 | 4.11 | 0.000 | 0.17 | 0.08 |
| | LI4 | Librarians help students complete literacy tasks when they make mandatory library visits. | 312 | 4.13 | 0.000 | 0.10 | -0.22 |
| | LI5 | Teachers integrate literacy strategies in all subjects to improve students' writing skills and reading comprehension. | 312 | 3.83 | 0.000 | -0.05 | 0.01 |
| SLC | SLC1 | The school and classroom environment are rich in text; students can read many displays of information and knowledge. | 312 | 4.28 | 0.000 | 0.06 | -0.12 |
| | SLC2 | The frequency of library visits and borrowing books by the school community increases over time. | 312 | 4.31 | 0.000 | 0.23 | -0.13 |
| | SLC3 | The school community is familiar with books and reading activities have become a habit. | 312 | 4.59 | 0.000 | 0.08 | 0.16 |

| Variable | Code | Questionnaire Item | N | Mean | Sig.(2-tailed) | Skewness | Kurtosis |
|---|---|---|---|---|---|---|---|
| | SLC4 | Students and teachers are highly motivated to produce work (writing), and the school always facilitates it. | 312 | 3.87 | 0.000 | 0.05 | 0.04 |
| | SLC5 | High-intensity application of literacy strategies in learning reading and writing skills. | 312 | 4.21 | 0.000 | -0.16 | 0.08 |
| | SLC6 | All School literacy programs are implemented regularly and sustainably, and students are enthusiastic about following them. | 312 | 4.42 | 0.000 | 0.04 | 0.06 |
| | SLC7 | The school has adequate reading materials and facilities to support student literacy activities. | 312 | 3.73 | 0.000 | 0.14 | -0.17 |

Table 4 presents a descriptive analysis of each item of the SP, LP, LI, and SLC variables. The analysis results show that the data for each variable item meets the validity requirements because the Sig. (2-tailed) values of all variable items are less than (<) 0.05. In addition, the data also does not tend to center on one side only (odd); the statistical value of skewness and kurtosis of each variable item is balanced. It can be concluded that the data distribution on the SP, LP, LI, and SLC variables is normally distributed.

## Reliability Test

The data must also be tested for reliability to produce consistent information in each measurement. Reliability tests must be met as one of the requirements before performing the Pearson Correlation test. Reliability test using the Cronbach Alpha Reliability test. According to statistical rules, data is reliable if it has a Cronbach Alpha value of greater than (>) 0.6 (46, 47). Based on the data in Table 5, the data of the variables SP (0.819), LP (0.906), LI (0.760), and SLC (0.859) meet the reliability criteria because they have a Cronbach Alpha value > 0.6.

**Table 5:** Cronbach's Alpha Value

| Variables | Cronbach alpha | N item |
|---|---|---|
| SP | 0.819 | 7 |
| LP | 0.906 | 8 |
| LI | 0.760 | 5 |
| SLC | 0.859 | 7 |

## Normality Test

Normality can be determined through the One-Sample Kolmogorov-Smirnov test based on the Asymp. Sig (2-tailed) value. According to statistical rules, data is normally distributed if the Asymp. Sig (2-tailed) value is greater than (>) 0.05 (48). Based on the data in Table 6, the Asymp. Sig (2-tailed) value of the SP (0.088), LP (0.059), LI (0.200), and SLC (0.200) variables are > 0.05. It can be concluded that the data distribution of the four variables is normally distributed.

The normality of the data can also be determined based on the values of skewness and kurtosis. The data is normally distributed if the distribution does not tend to be centered on one side only. This is characterized by the skewness and kurtosis values being between -0.5 and 0.5 (49, 50). In Table 4, the skewness and kurtosis values of each item of the SP, LP, LI, and SLC variables are between -0.5 and 0.5. Based on this method, the SP, LI, LP, and SLC variable data are also normally distributed.

**Table 6:** One-Sample Kolmogorov-Smirnov Test

| Variables | N | Test Statistic | Asymp. Sig. (2-tailed) |
|---|---|---|---|
| SP | 312 | 0.068 | 0.088 |

| | | | |
|---|---|---|---|
| LP | 312 | 0.072 | 0.059 |
| LI | 312 | 0.050 | 0.200 |
| SLC | 312 | 0.064 | 0.200 |

## Correlation Test

The correlation test aims to determine the relationship between variable X (SP, LP, and LI) to variable Y (SLC). The correlation test between variables uses the Bivariate Pearson Correlation test based on the Pearson Correlation Coefficient value. The strength of the correlation between variables follows the following conditions: 0.00-0.10 (negligible correlation), 0.10-0.39 (weak correlation), 0.40-0.69 (moderate correlation), 0.70-0.89 (strong correlation), 0.90-1.00 (robust correlation) (51).

**Table 7:** Correlation of SP, LP, and LI to SLC

| Variable X | Variable Y (SLC) | | |
|---|---|---|---|
| | Pearson Correlation | N | Strength of Correlate |
| SP | 0.730 | 312 | Strong |
| LP | 0.703 | 312 | Strong |
| LI | 0.794 | 312 | Strong |

**Table 8:** Correlation of Each Item of SP, LP, and LI to SLC

| Variable Items | SLC | | |
|---|---|---|---|
| | Pearson Correlation | N | Strength of Correlate |
| **SP** | | | |
| SP1 | 0.705 | 312 | Strong |
| SP2 | 0.769 | 312 | Strong |
| SP3 | 0.817 | 312 | Strong |
| SP4 | 0.792 | 312 | Strong |
| SP5 | 0.814 | 312 | Strong |
| SP6 | 0.694 | 312 | Moderate |
| SP7 | 0.668 | 312 | Moderate |
| **LP** | | | |
| LP1 | 0.730 | 312 | Strong |
| LP2 | 0.742 | 312 | Strong |
| LP3 | 0.615 | 312 | Moderate |
| LP4 | 0.768 | 312 | Strong |
| LP5 | 0.619 | 312 | Moderate |
| LP6 | 0.799 | 312 | Strong |
| LP7 | 0.670 | 312 | Moderate |
| LP8 | 0.721 | 312 | Strong |
| **LI** | | | |
| LI1 | 0.627 | 312 | Moderate |
| LI2 | 0.873 | 312 | Strong |
| LI3 | 0.830 | 312 | Strong |
| LI4 | 0.771 | 312 | Strong |
| LI5 | 0.781 | 312 | Strong |

Based on the data in Table 7, the Coefficient Pearson Correlation value of the SP variable = 0.730, strongly correlated (positively correlated) to the SLC variable. The Coefficient Pearson Correlation value of the LP variable = 0.703, strongly correlated (positively correlated) to the SLC variable. The Coefficient Pearson Correlation value of the LI variable = 0.794, strongly correlated (positively correlated) to the SLC variable. Table 8 presents the correlation test results for each SP, LP, and LI variable item against SLC. Variable items SP1, SP2, SP3, SP4, and SP5 strongly correlated to SLC, while variable items SP6 and SP7 moderately correlated to SLC. Variable items LP1, LP2, LP4, LP6, and LP8 strongly correlated to SLC, while variable items LP3, LP5, and LP7 moderately

correlated to SLC. Variable items LI2, LI3, LI4, and LI5 strongly correlated to SLC, and only variable item LI1 has a moderately correlated to SLC. This result could be why the LI variable has the strongest correlation to SLC than other variables.

## Strength of Influence of SP, LP, and LI to SLC

After it is known that there is a positive relationship between the SP, LP, and LI variables and the SLC variable, further analysis is necessary to measure the strength of the influence caused by each variable. This needs to be known as a guideline for maximizing the implementation of these variables. The strength of the influence is measured using correlation analysis and multiple regression of the predictor variable (independent) to the dependent variable. The strength of the influence can be seen from the value of R Square.

**Table 9:** Strength of Influence of SP, LP, and LI to SLC

| Variables | Strength of Influence | | |
|---|---|---|---|
| | R | R Square | Sig |
| SP | 0.730 | 0.533 (53.3%) | 0.000 |
| LP | 0.703 | 0.494 (49.4%) | 0.003 |
| LI | 0.794 | 0.631 (63.1%) | 0.000 |

**Table 10:** Strength of Simultaneous Influence of SP, LP, and LI to SLC

| Predictors (Independent) | Dependent Variabel (SLC) | | |
|---|---|---|---|
| | R | R Square | Sig |
| SP, LP, LI | 0.925 | 0.856 (85.6%) | 0.000 |

Table 9 presents the regression and correlation analysis of SP, LP, and LI variables (independent) to the SLC variable (dependent). The strength of the relationship is seen from the Correlation Coefficient (R) value, while the strength of the influence is seen from the Coefficient of Determination (R2) value. The SP variable has a Coefficient of Determination of 0.631, meaning that the SP variable affects the SLC variable by 63.1%. It has the highest influence compared to the LP and LI variables. The LP variable has a Coefficient of Determination of 0.494, meaning that the SP variable affects the SLC variable by 49.4%. The LI variable has a Coefficient of Determination of 0.533, meaning that the LI variable affects the SLC variable by 53.1%. Table 10 presents the results of the correlation and multiple regression analysis of the independent variable (SP, LP, and LI) to the dependent variable (SLC). The Correlation Coefficient of the independent variable to the dependent is 0.925, meaning that the SP, LP, and LI variables simultaneously have a "strong" relationship with the SLC variable. The Coefficient of Determination of the dependent variable to the independent variable is 0.856, meaning that the SP, LP, and LI variables simultaneously influence the SLC variable by 85.6%. It is concluded that school policies, literacy programs, and literacy instruction influence the realization of a school literacy culture by 85.6%, and the remaining 14.4% is influenced by other variables outside the regression equation or variables not studied. The results of this calculation are important for all primary schools in Indonesia and even abroad. To realize a school literacy culture by maximizing school literacy policies, literacy programs, and literacy instruction.

Based on the analysis results in Tables 9 and 10, it can be concluded that: (1) Hypothesis 1 "There is a significant positive relationship between school literacy policy and school literacy culture" is accepted; (2) Hypothesis 2 "There is a significant positive relationship between literacy programs and school literacy culture" is accepted; (3) Hypothesis 3 "There is a significant positive relationship between literacy instruction and school literacy culture" is accepted; Hypothesis 4 "There is a simultaneous significant positive relationship between school literacy policy, literacy programs and literacy instruction and school literacy culture" is accepted.

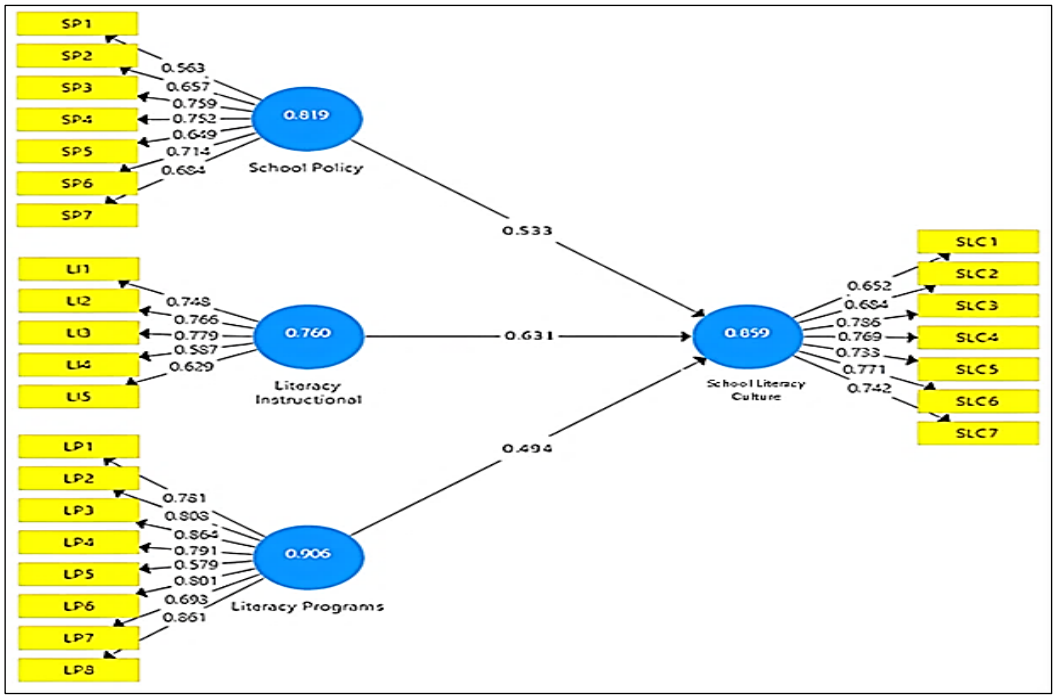


**Figure 4:** SEM of SP, LP, and LI on SLC

Figure 4 is the result of Structural Equation Modeling (SEM) analysis to describe the linear relationship of each independent variable (SP, LP, and LI) to the dependent variable (SLC). This structural modeling is a form of data visualization in Tables 7-10 (Correlation and Determination). The data in the Construct section is the Cronbach Alpha value of each variable. Conversely, the Outer Model section data is the Outer Loading value (loading factor) of each variable item. In general, each variable item strongly correlated with its latent construct. Although there are three variable items whose factor loading value is less than (<) 0.6, namely SP1, LP5, and LI4, according to Chin (52), convergent validity can still be maintained if the loading factor value is between 0.5 and 0.6. Furthermore, in the inner model section, the total influence exerted by each SP, LP, and LI variable on SLC. This value equals the coefficient of determination (R2 ) or the degree of influence.

## Discussion

The implementation of SLM in Indonesia has not had a significant impact so far. There are still many areas where student literacy is relatively low. Yogyakarta is the best at implementing SLM in Indonesia. Students' reading habits were formed before the SLM program was rolled out. In the last four years, literacy achievement in Yogyakarta has been higher than at the national level. With its facilities' advantages and citizens' reading habits, Yogyakarta has a huge literacy potential. Unfortunately, the success of Yogyakarta Province in implementing SLM is rarely thoroughly researched. Existing research (28), only examines one aspect of SLM, namely students' reading habits, and the research was only conducted in one area in Yogyakarta. Based on extended interviews and observations since 2021, a tentative assumption was made that Yogyakarta Province's advantage in implementing SLM lies in the literacy policy implemented in each school, the variety of literacy programs, and literacy mentoring by teachers.

Therefore, this study seeks to prove this assumption by investigating whether there is a positive linear relationship between school literacy policy, literacy programs, and literacy instruction on school literacy culture. It is undoubtedly essential to research this so that regions in Indonesia can maximize the implementation of these three components and increase student literacy competence. Based on the statistical test results in Table 7, the school literacy policy strongly correlated to the school literacy culture. In Table 9, the school literacy policy has a Coefficient of Determination value of 0.533, affecting the realization of a school literacy culture by 53.3%. This calculation is rationally acceptable because school rules that require students to read extensively (at home and at school), write trip

reports, and visit the library indirectly improve school residents' reading and writing skills, a characteristic of school literacy culture. This aligns with the research results (53, 54), where school policies can improve the quality and quantity of teaching, collaboration between teachers and students, and increase student motivation and achievement in reading and writing. Previous research shows that implementing education policies can increase teachers' seriousness in teaching and student autonomy in learning (55). Referring to Bronfenbrenner's Ecological Systems Theory, individual development (in this case, students' literacy skills) is influenced by interactions between various layers of the environment (56, 57). Symbolic school literacy policies (without guidance) only have a minimal impact. Meanwhile, school literacy policies effectively implemented by teachers, such as accompanying students while they read in the classroom reading corner, encouraging and inviting students to the library, and committing to implementing and monitoring every established literacy policy, can have a maximum impact. Good relationships among school community members, such as parents supporting reading activities at home, librarians who are creative and enthusiastic when students visit, and peer-to-peer reading encouragement, also play a crucial role in fostering a school literacy culture.

Literacy programs are various activities launched by schools and carried out on an ongoing basis to improve students' literacy competencies. School literacy programs also influence the realization of a school literacy culture. The data in Table 7 shows that school programs are strongly correlated to the school literacy culture. In Table 9, the school program has a Coefficient of Determination value of 0.494, influencing the realization of a school literacy culture by 49.4%. In line with the findings above, the past research shows the implementation of school literacy competitions such as reading, writing, and storytelling competitions; providing literacy training to teachers and administrators; and holding literacy seminars for students' parents, affecting the realization of literacy culture in schools (58). Furthermore, another past research shows that the implementation of various literacy programs, such as reading before learning for 15 minutes and using literacy strategies in learning to read, can improve students' vocabulary, the ability to speak and express opinions, and the ability to understand information, which are characteristics of school residents who uphold literacy culture (59). Jacobson (33) explained that literacy programs owned by schools can facilitate students' literacy needs according to their interests and abilities. Some students prefer reading, listening to stories, writing, speaking, and becoming reliable orators. Students can express themselves and improve their chosen fields by participating in literacy programs according to their interests.

Literacy instruction is an inseparable part of realizing a school literacy culture. It has a meaningful impact on improving students' reading and writing skills because it serves students individually and is generally carried out directly. Teachers' roles, commitments, and responsibilities are crucial in implementing literacy instruction. Literacy instruction also strongly correlated to the school literacy culture in Table 7. In Table 9, the literacy instruction has a Coefficient of Determination value of 0.631, affecting the realization of a school literacy culture by 63.1%. It is the largest of the other two independent variables.

Cantrell explained that intensive literacy assistance by teachers in teaching reading and writing can improve students' reading and writing skills. This improvement is not only at the "can" level but can reach the "advanced" level (60). Literacy instruction improves students' ability to understand information and text structure, as well as making them more skilled in writing because they already understand how to channel ideas/thoughts into writing (61). Literacy instruction is not just about learning to read or write. Every classroom learning activity that aims to improve students' reading and writing skills is part of literacy instruction.

Literacy instruction also affects students' success as lifelong learners; reading and writing are essential skills everyone must have and are the central provision in accessing a wider range of knowledge and learning various other fields of science (62). These skills can only be acquired and improved through literacy instruction. The success of implementing literacy instruction will affect students' proficiency in reading and writing. Ultimately, the level of student's abilities in these

two skills will undoubtedly affect their success in learning the wider world (63, 64).

Literacy instruction is included in the microsystem layer based on Bronfenbrenner's Ecological Systems Theory (65). Literacy instruction methods directly influence students' interest in reading and writing. If teachers are poorly trained or inconsistent in applying literacy, the impact on school literacy culture will be weak (56). Students are not skilled in reading and writing; they are unable to understand reading texts and unable to produce good writing. Because it has a direct impact, it is not surprising that literacy instruction influences the development of school literacy culture by 63.1%.

# Conclusion

The implementation of SLM in Yogyakarta Province is going very well. All school residents are highly committed to realizing a school literacy culture. Yogyakarta's advantages compared to other provinces in Indonesia lie in the literacy policy implemented in all schools, diverse literacy programs, and literacy instruction that runs well and is implemented by teachers and librarians with full responsibility. The literacy culture that has been established in elementary schools in Yogyakarta Province can be seen in various aspects. *First*, the school and classroom environment are rich in text; students can read many displays of information and knowledge. *Second*, the frequency of library visits and borrowing books by the school community increases over time. *Third*, the school community is familiar with books and reading activities have become a habit. *Fourth*, students and teachers are highly motivated to produce work (writing), and the school always facilitates it. *Fifth*, high-intensity application of literacy strategies in learning reading and writing skills. *Sixth*, all School literacy programs are implemented regularly and sustainably, and students are enthusiastic about following them. *Seventh*, the school has adequate reading materials and facilities to support student literacy activities.

Statistical calculations using SPSS 26 and SMART PLS showed that each independent variable (school literacy policy, literacy program, and literacy instruction) strongly correlated with the dependent variable (school literacy culture). Simple linear regression analysis and multiple linear regression showed that school literacy policy, literacy programs, and literacy instruction affected the realization of school literacy culture by 53.3%, 49.4%, and 63.1%, respectively. Simultaneously, these three variables affect the realization of school literacy culture by 85.6%, while other variables outside the variables studied influence the remaining 14.4%.

## Abbreviations

CLDI: Community Literacy Development Index, CLM: Community Literacy Movement, FLM: Family Literacy Movement, HDI: Human Development Index, LI: Literacy Instruction, LP: Literacy Programs, NLM: National Literacy Movement, RIL: Reading Interest Level, SLC: School Literacy Culture, SLM: School Literacy Movement, SP: School Literacy Policy.

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## Author Contributions

M. Habibi: Methodology, Investigation, Data Curation, Writing – Original Draft, Writing – Review and Editing, Ali Mustadi: Conceptualization and Supervision, Supartinah: Conceptualization and Supervision, Chandra: Methodology, Writing – Original Draft and Writing – Review and Editing, Jupriyanto: Resources, Data Curation, and Visualization, Ratna Hidayah: Resources, Data Curation, and Visualization, Nurfaijah: Methodology and Visualization.

## Conflict of Interest

The authors declare no conflict of interest.

## Ethics Approval

The authors ensured that the research was not coercive. The schools selected as locations for distributing the questionnaires have consented. All data obtained were the result of voluntary work from school principals. Respondents' personal information was handled with the principle of anonymity. This research has also been approved by the ethics board of the Faculty of Education and Psychology, Yogyakarta State University, through Decree number B/2278/UN34.08/Pen/2024.

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