



## The Trend of Library Development in Indonesia and the Effects on Literacy Skills in Schools

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**Abstract:** This study has the purpose of explaining the trend of library development in Indonesia from 2017-2021, studying the significance, and analysing the effects on the development of literacy skills in schools. This study was designed as a quantitative descriptive, comparison, and correlational analysis. The results of this study indicate that the trend of Library Growth in Indonesia continuously increased except in 2018 due to a regrouping policy for primary schools. Secondly, the library growth in Indonesia has shown a significant difference each year in public and private schools. Although in 2018, there was no significant difference in terms of the average percentage of library growth for schools in both public and private environments, what happened in 2019 and 2020 showed different things. Both public and private school libraries have demonstrated significant differences in the average percentage growth of libraries to schools in 2019 and 2020. Even in 2021, the average accumulation percentage of growth in the number of libraries in public schools is already above 90%, while in private schools, it is still below 90%. Lastly, a significant moderate positive relationship between the national average libraries to school ratio and Alibaca Index/Reading Literacy Score means that a library's presence in schools has moderately influenced students' literacy skills.

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## Introduction

Libraries are essential in education, primarily as students' knowledge sources. As explained by (Fahlefi & Bowo, 2021), the library seeks to support educational programs so that students can optimise their potential and fulfil their learning needs. Specifically, the school library also aims to achieve the objectives of the teaching and learning process in schools. It also functions as a source of information for developing science and technology, and so on.

Definition of the library according to Library Law no. 43 of 2007 Chapter 1 Article 1, a library is an institution that collects printed and recorded knowledge and manages it in a particular way to meet the intellectual needs of its users through various forms of knowledge interaction (Republik Indonesia, 2007). According to (Darmono, 2007), the library is essentially a centre for learning resources and sources of information for its users. The library can be interpreted as a place where books are collected and organised as a medium for student learning. Meanwhile, according to (Wahdinah, 2016), the library as an educational centre means that the school library must function as a "teacher" or learning centre that serves the various needs of students and other school library users. Thus, the position of the school library is also expected to develop students' thinking power rationally and critically. Libraries can also meet students' needs and demands on the sources of learning materials.



Libraries have a vital position in supporting the school literacy movement. It will be successful if it runs holistically where schools, teachers, parents, government, private sector, and libraries must jointly support the school literacy movement (Mulyo Teguh, 2017). Meanwhile, research conducted by (Kastro, 2020) concluded that the school library supported the school literacy movement with all its resources. Through the library, students can add knowledge and apply it in teaching and learning activities (Nopitasari et al., 2021). Similarly, previous studies found that school library supported the development of the literacy program for students including the stages of habituation (getting used to literacy activities), development (advancing literacy activity), and learning (holding literacy club and mandatory to visit the library) (Subur et al., 2022) & (Priasti & Suyatno, 2021)).

Libraries are not only related to buildings and books but also their storage systems, maintenance, users, and how to use and utilise them. In their book, previous research (Miller & McKenna, 2016) says four factors can influence literacy activities: proficiency, access, alternatives, and culture. In this case, the library is part of the access that acts as a supporting resource. Other researchers (Alpian & Ruwaida, 2022) confirmed that a library can foster a love of science and provide complete facilities. Libraries can also be used as a perfect recreation place for students. Even when they have free time at school, students have to get used to reading books in the library (Niswaty et al., 2020). Therefore, the library is an essential pillar in the school literacy movement. Because a library that has complete facilities will make students motivated to read diligently while making the library a fun learning tool.

The literacy movement must be carried out as early as possible because this is the main thing to create an intelligent and cultured nation. The rise of nations began with book enlightenment and a continuous grasp of bearing literacy (Tunardi, 2018). Meanwhile, good literacy skills make learning a foreign language uncomplicated (Akbar, 2017). In addition, mastery of literacy is one of the crucial roles for young people who help develop the country. It is in line with what was stated by (Ratna Rintaningrum, 2019) that reading literacy is essential for self-improvement, personal branding, professional development, schooling, and national development.

Programme for International Student Assessment (PISA) revealed that in the age range of 15 years, Indonesian students' reading literacy was in 64th out of 72 countries in 2015. Furthermore, in 2018 PISA's score for Indonesia was not much different from the PISA assessment in previous years, where Indonesia was always in the bottom 10 top. That year, Indonesia's PISA results were ranked 74th out of 79 participating countries (OECD, 2019). A similar result from the study conducted in the national scope by the Ministry of Education and Culture reveals that the Alibaca Index is in the category of shallow literacy activity, which is 37.32. The value is composed of four-dimensional indices: the Index Dimension of Skills is 75.92; Access Dimension Index of 23.09; Alternative Dimension Index of 40.49; and Dimension Index Culture of 28.50 (Kemendikbud RI, 2019). Another study also mentioned that the literacy capability of Indonesian schoolchildren is still relatively low and must be improved. It is based on a report from the Educational Assessment Centre (Puspendik) of the Ministry of Education and Culture. Testing fourth-grade elementary school students' reading, math, and science skills, they found that, especially in reading, the results were 46.83% in the poor category, 6.06% in the good category, and 47.11% in the excellent category.

There is still an assumption that the number of libraries and books is still considered sufficient for reading needs. In addition, the problem of reading culture has not been considered a critical problem compared to other problems that are considered more urgent (Mulyo Teguh, 2017). Other researchers revealed that the quality and quantity of school



libraries in Indonesia are still minimal with poor conditions. Not all schools can manage libraries professionally. Data from the Central Statistics Agency also reveals that the lowest library-to-school ratio is at the elementary school (SD) level, with only 77 out of 100 schools having school library facilities. The government should pay attention to this, especially at the primary education level, as the beginning where the culture should be fond of reading has started (Badan Pusat Statistik, 2021). In addition to the low number of visits to the library, the lack of variety of reading materials read by students also impacts the everyday reading literacy activity countrywide. In 2019, Central Statistics Agency (BPS) conducted National Socio-Economic Survey (SUSENAS). It was revealed that only around 13.02% of the society aged five years overcame the library.

A previous study revealed the lack of a library's role as a reading centre. It was also stated that the library sometime functioned as an alternative classroom. Furthermore, the minimum school budget allocation of 5% is still focused on the procurement of textbooks, which are still considered to have minimal contribution to the success of the literacy movement (Hidayah, 2017). In comparison, the School Literacy Movement as a government program can be implemented optimally and sustainably through a sound school library that meets the standards (Kastro, 2020). Another study revealed that the incomplete library collection and the absence of a fixed budget for library development were obstacles to optimising school libraries to improve the quality of learning (Syam, 2019). However, the national library development trend and significance had not been widely explored. Furthermore, studying the relationship between libraries and literacy skills on the national scope is also important to be studied as data for government considerations in making policy. Therefore, the current study aims to explain the trend of library development, study the significance of library development, and analyse the effects library development toward literacy movement in Indonesia.

### Research Method

This study was designed as a quantitative descriptive, comparison, and correlational analysis. The data from “*Statistik Pendidikan*” Catalogue issued by the Central Statistics Agency (BPS) were investigated using descriptive statistics to answer the first question about the trend of library growth in Indonesia. For the second question, it was about the significance of library growth in Indonesia. It used a repeated measure ANOVA to study the significance of the national library growth from 2017-2021 from “*Statistik Pendidikan*” Catalogue issued by the BPS. The last question was about whether the existence of a library affects the increase in literacy scores. It was answered by conducting a correlational study on the library growth data in 2019 and the students’ literacy scores based on the Alibaca Index 2019 from all provinces in Indonesia issued by the Ministry of Education and Culture. Furthermore, this research utilised IBM SPSS 26 statistics software to analyse the data, especially inferential statistics.

This study used secondary data from the official statistics provided BPS by taking annual data of the number of libraries by education level and academic year, the ratio of libraries to the number of schools, and the percentage of libraries to schools at each level of education from “*Statistik Pendidikan*” Catalogue since 2017 to 2021. Moreover, the literacy index data from the Ministry of Education and Culture was also included in this research.

## Results and Discussion

### *The Trend of Library Growth in Indonesia*

In this section, we will first look at the development of the number of libraries in public schools. Then the following discussion will look at the development of libraries in private schools. Table 1 below perceived the development trend of public and private school libraries.

**Table1. Development of Number of Public-School Libraries Based on Education Level and Academic Year (2016/2017 – 2020/2021)**

Education Level	School Years				
	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021
SD/Primary	81.714	94.550	87.968	96.466	101.636
SMP/Junior High	18.510	19.293	2.004	21.898	23.871
SMA/Senior High	5.626	6.118	6.445	6.980	7.593
SMK/ Vocational	2.665	2.890	3.091	3.415	3.706

Source: Ministry of Education and Culture in the Education Statistics Reports 2017-2021 published by the Central Statistics Agency [www.bps.go.id](http://www.bps.go.id).

Based on Table 1, the number of public-school libraries at all levels of education have increased commonly. On the other hand, there was a decrease in the number of school libraries in the 2018/2019 school year at the elementary level, and it was 87,968 from 94,550 in the 2017/2018 academic year. It may be due to the regrouping policy as a government program that merges schools with a shortage of students, thus affecting the number of school libraries at the elementary level. However, in the 2019/2020 school year, the number of elementary schools increased significantly to 96,466.

**Table 2. Development of Number of Private School Libraries Based on Education Level and Academic Year (2016/2017 – 2020/2021)**

Education Level	School Years				
	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021
SD/Primary	8.929	9.386	10.367	12.585	13.579
SMP/Junior High	10.286	10.737	11.645	14.068	14.597
SMA/Senior High	4.416	4.744	5.237	6.545	6.773
SMK/ Vocational	5.322	5.961	7.307	9.380	9.822

Source: Ministry of Education and Culture in the Education Statistics Reports 2017-2021 published by the Central Statistics Agency [www.bps.go.id](http://www.bps.go.id).

The table 2 above shows that in the last five years, the number of private school libraries at all levels of education has increased. There was a meaningful increase at the elementary level, from 8,929 in the 2016/2017 school year to 13,579 in the 2020/2021 school year. Then at the junior high school level, it was increased by 4,311 libraries from 10,286 in the 2016/2017 academic year to 14,597 in the 2020/2021 school year. At the Vocational level, there was an increase of 4,500 from 5,322 in the 2016/2017 academic year to 9,822 in the 2020/2021 school year. Meanwhile, the high school level had the slightest increase in the number of libraries in the last five years and only increased by 2,357. From 4,416 in the 2016/2017 school year to 6,773 in the 2020/2021 school year.

### *The Significance of Library Growth in Indonesia*

The collected data from Education Statistics Reports from 2017-2021 (Badan Pusat Statistik, 2017) (Badan Pusat Statistik, 2018) (Badan Pusat Statistik, 2019) (Badan Pusat Statistik, 2020) & (Badan Pusat Statistik, 2021) were examined at this step. To answer the

second question, IBM SPSS 26 statistics software was used to investigate the significance of the percentage growth of public and private school libraries in Indonesia. We will first look at the significance of library growth in public schools, and then the following discussion will look at the significance of library growth in private schools. Table 3 below shows the percentage of Libraries to Public-School by education level from 2017 until 2021.

**Table 3. Percentage of Libraries to Public-School by Education Level in 2017-2021**

Education Level	Years				
	2017	2018	2019	2020	2021
SD/Primary	61.89	71.64	66.71	73.15	77.55
SMP/Junior High	81.17	83.06	85.54	92.81	100.85
SMA/Senior High	85.67	90.88	94.57	101.48	110.06
SMK/ Vocational	77.61	82.13	86.39	94.28	102.12

Source: Ministry of Education and Culture in the Education Statistics Reports 2017-2021 published by the Central Statistics Agency [www.bps.go.id](http://www.bps.go.id).

The normality test was carried out as a primary assumption before inferential statistics for repeated measure ANOVA (Analysis of Variance). Based on Table 4 below, we were able to see that Sig. value data for Shapiro-Wilk tests for standardized residual average percentage of libraries to public-school growth from 2017 to 2021 (.405, .750, .395, .343, .278) > (.05). We could conclude that the data was normally distributed and met the assumption to run repeated measure ANOVA tests.

**Table 4. Tests of Normality from Percentage of Libraries to Public-School Data**

	Shapiro-Wilk		
	Statistic	df	Sig.
Standardized Residual for Public-School Data 2017	.895	4	.405
Standardized Residual for Public-School Data 2018	.955	4	.750
Standardized Residual for Public-School Data 2019	.893	4	.395
Standardized Residual for Public-School Data 2020	.881	4	.343
Standardized Residual for Public-School Data 2021	.865	4	.278

Furthermore, repeated measure ANOVA was executed in this study to determine whether there is a statistically significant difference between the means percentage of libraries in all educational public-school levels from 2017 to 2021. The result indicated that Greenhouse-Geisser Sig. (.004) < .05 means there was a significant difference in the average percentage of libraries to public-school growth from 2017 to 2021 (see Table 5 below). Thus, it can be concluded that during the past four years, the government has been able to significantly carry out developments related to the average percentage of libraries to public-school growth.

**Table 5. Tests of Within-Subjects Effects for Public-School Libraries**

Measures: Public School Libraries

Sources	Type III Sum of Squares	df	Mean Square	F	Sig.	
Years	Greenhouse-Geisser	1070.930	1.218	879.053	39.221	.004

The result of the Pairwise Comparison showed the relationship between pairs of means between 2017 to 2021. There was a significant difference in the average percentage of libraries to public schools' growth between 2021 and 2017 (Sig. .022 < .05) at .05 level of significance. However, there was no significant difference in the average percentage of libraries in public schools between 2021 and 2018 (Sig. .176 > .05) at .05 level of significance. Moreover, there was a significant difference in the average percentage of libraries to public schools between 2021 and 2019 (Sig. .012 < .05) at .05 level of

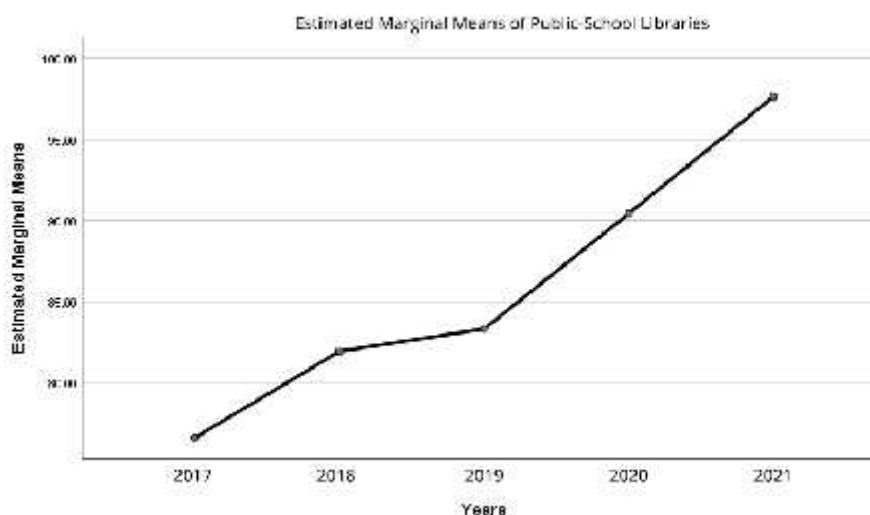
significance. Furthermore, there was a significant difference in the average percentage of libraries to public schools between 2021 and 2020 (Sig. .048 < .05) at .05 level of significance (see table 6 below). It also means that the average percentage of libraries to public-schools growth is 21% from 2017-2021 (within 4 years), 15.7% from 2018-2021 (within three years), 14.3% from 2019-2021 (within two years), and 7.2% from 2020-2021 (within one year). Figure 1 explains that the sharp growth of the average percentage of the number of libraries to the number of public schools increases every year from 2017 to 2021.

**Table 6. Pairwise Comparison of the Average Percentage of Libraries to Public-Schools**

(I) Years	(J) Years	Mean Difference			95% Confidence Interval for Difference <sup>b</sup>	
		(I-J)	Std. Error	Sig. <sup>b</sup>	Lower Bound	Upper Bound
2021	2017	21.060*	2.122	.022	5.241	36.879
	2018	15.718	3.301	.176	-8.883	40.318
	2019	14.343*	1.171	.012	5.617	23.068
	2020	7.215*	.951	.048	.125	14.305

Based on estimated marginal means

\*. The mean difference is significant at the .05 level. b. Adjustment for multiple comparisons: Bonferroni.



**Figure 1. Average Percentage of Libraries to Public-Schools Growth in Indonesia**

The following analysis will see the statistical differences in the average percentage of libraries to private schools at each level of education in the 2017-2021 period. Below is table 7, which shows the percentage of Libraries to Private-School by education level from 2017 until 2021.

**Table 7. Percentage of Libraries to Private-School Libraries by Education Level in 2017-2021**

Education Level	Years				
	2017	2018	2019	2020	2021
SD/Primary	57.67	57.69	61.66	71.68	76.78
SMP/Junior High	68.76	68.25	71.66	82.92	88.36
SMA/Senior High	67.14	70.15	76.15	92.69	97.23
SMK/ Vocational	54.30	58.49	69.68	87.84	94.00

Source: Ministry of Education and Culture in the Education Statistics Reports 2017-2021 published by the Central Statistics Agency [www.bps.go.id](http://www.bps.go.id).

The normality test was also executed as a primary assumption before executing inferential statistics for repeated measure ANOVA. Based on Table 8 below, we were able to

see that Sig. value data for Shapiro-Wilk tests for standardized residual average percentage of libraries to private-school growth from 2017 to 2021 (.351, .159, .790, .766, .578) > (.05). We could conclude that the data was normally distributed and met the assumption to run repeated measure ANOVA tests.

**Table 8. Tests of Normality from Percentage of Libraries to Private-School Data**

	Shapiro-Wilk		
	Statistic	df	Sig.
Standardized Residual for Private-School Data 2017	.883	4	.351
Standardized Residual for Private-School Data 2018	.826	4	.159
Standardized Residual for Private-School Data 2019	.962	4	.790
Standardized Residual for Private-School Data 2020	.958	4	.766
Standardized Residual for Private-School Data 2021	.927	4	.578

Moreover, repeated measure ANOVA was used in this study to determine whether there is a statistically significant difference between the means percentage of libraries in all educational private-school levels from 2017 to 2021. The result indicated that Greenhouse-Geisser Sig. (.011) < .05 means there was a significant difference in the average percentage of libraries to private-school growth from 2017 to 2021 (see Table 9 below). Thus, it can be concluded that during the past four years, private-sector education has been able to carry out developments related to the average percentage of libraries to private-school growth significantly at the national level.

**Table 9. Tests of Within-Subjects Effects for Private-School Libraries**

Measures: Public School Libraries

Sources	Type III Sum of Squares	df	Mean Square	F	Sig.	
Years	Greenhouse-Geisser	2370.552	1.021	2321.727	31.145	.011

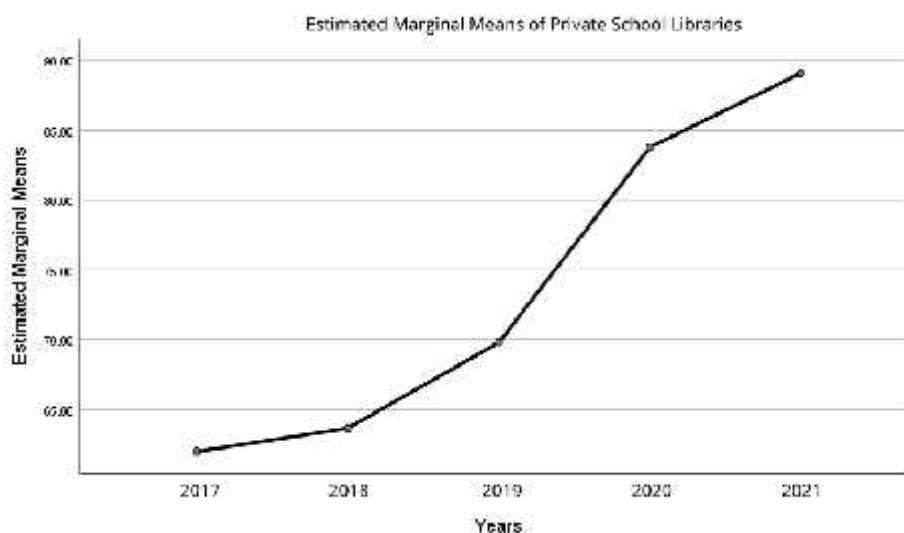
The result of the Pairwise Comparison showed the relationship between pairs of means between 2017 and 2021. There was no significant difference in the average percentage of libraries to private-school between 2021 and 2017 (Sig. .116 > .05) at .05 level of significance. Similarly, there was no significant difference in the average percentage of libraries to private-school between 2021 and 2018 (Sig. .068 > .05) at .05 level of significance. On the other hand, there was a significant difference in the average percentage of libraries to private-school between 2021 and 2019 (Sig. .027 < .05) at .05 level of significance. Furthermore, there was a significant difference in the average percentage of libraries to private-school between 2021 and 2020 (Sig. .006 < .05) at .05 level of significance (see table 10 below). It also means that the average percentage of libraries to private-school growth is 27.1% from 2017-2021 (within 4 years), 25.4% from 2018-2021 (within three years), 19.3% from 2019-2021 (within two years), and 5.3% from 2020-2021 (within one year). Figure 2 explains that the average percentage of the number of libraries to the number of private-school increases yearly from 2017 to 2021.

**Table 10. Pairwise Comparison the Average Percentage of Libraries to Private-Schools**

(I) Years	(J) Years	Mean Difference		Sig. <sup>b</sup>	95% Confidence Interval for Difference <sup>b</sup>	
		(I-J)	Std. Error		Lower Bound	Upper Bound
2021	2017	27.125	4.897	.116	-9.375	63.625
	2018	25.447	3.795	.068	-2.838	53.733
	2019	19.305	2.094	.027	3.700	34.910
	2020	5.310	.339	.006	2.786	7.834

Based on estimated marginal means

\*. The mean difference is significant at the .05 level. b. Adjustment for multiple comparisons: Bonferroni.



**Figure 2. Average Percentage of Libraries to Private-Schools Growth in Indonesia**

From the results of the repeated measure ANOVA tests above, it can be concluded that the average percentage of libraries for both public and private schools experienced significant growth. The considerable difference in average percentage growth of libraries to schools in both public and private school libraries occurred in 2019 and 2020. Meanwhile, the insignificant difference in average percentage growth of libraries to schools occurred in 2018 both for libraries in public and private schools. Furthermore, the average percentage growth in the number of libraries to the number of schools in public schools is higher than that of private schools. Even in 2021, the average accumulation percentage of growth in the number of libraries in public schools is already above 90%, while in private schools, it is still below 90%.

#### *The Relationship Between Libraries and Literacy Scores*

The third question in this study will be answered with a correlation test which aims to determine the level of relationship between the percentage of the library to school ratio on students' literacy scores. The percentage of library to school ratio data for all provinces in Indonesia is obtained from the 2019 education statistics report. Meanwhile, literacy score data is obtained from the 34 provinces reading literacy activity index 2019 report by the Ministry of Education and Culture. Data on literacy scores only include reading literacy (Alibaca Index). The literacy term in the Alibaca Index is limited to text reading activities as defined by 'literacy events', i.e., events or activities of subjects in using texts or reading materials (Barton and Hamilton, 2000; Heath and Street, 2008, as cited in (Kemendikbud RI, 2019)).

In (table 11) below, under Alibaca Index Score column, it can be seen that only nine provinces (26%) fall into the category of moderate literacy activity (index number between 40.01 – 60.00), namely: Jakarta, Special Region of Yogyakarta, Riau Islands, East Kalimantan, Bali, North Kalimantan, Bangka Belitung Islands, Banten, and North Sulawesi. Furthermore, only one province (3%) is in the deficient or very low category (0 – 20.00), namely the province of Papua. The remaining 24 provinces (71%) are in the low category (20.01 – 40.00). In other words, most provinces are at a low level of literacy activity, and none are included in the high and very high levels (index values between 60.01 – 80.00 and 80.01 – 100.00).



**Table 11. The Average Percentage Ratio of the Number of Libraries to Schools and the Alibaca Score Index for Each Province in Indonesia**

No.	Provinces	Average Libraries To School's Ratio (%)	Alibaca Index Score/ Reading Literacy Index Score
1	Aceh	81.01	34.37
2	North Sumatra	76.73	35.73
3	West Sumatra	84.54	38.57
4	Riau	70.84	38.71
5	Jambi	79.42	37.32
6	South Sumatra	77.41	36.06
7	Bengkulu	82.97	37.41
8	Lampung	74.62	30.59
9	Bangka Belitung Islands	92.59	41.97
10	Riau Islands	76.69	54.76
11	Jakarta	90.20	58.16
12	West Java	70.28	39.47
13	Central Java	87.23	33.3
14	Special Region of Yogyakarta	95.13	56.2
15	East Java	73.55	33.19
16	Banten	70.80	40.81
17	Bali	88.09	44.58
18	West Nusa Tenggara	69.12	33.64
19	East Nusa Tenggara	72.09	29.83
20	West Kalimantan	75.60	28.63
21	Central Kalimantan	69.94	33.86
22	South Kalimantan	84.13	37
23	East Kalimantan	76.91	46.01
24	North Kalimantan	68.06	42.86
25	North Sulawesi	80.24	40.2
26	Central Sulawesi	71.67	31.55
27	South Sulawesi	82.12	33.82
28	Southeast Sulawesi	78.71	34.77
29	Gorontalo	85.66	34.99
30	West Sulawesi	67.76	32.92
31	Maluku	71.38	33.52
32	North Maluku	60.22	31.33
33	West Papua	66.16	28.25
34	Papua	57.97	19.9

Source: Ministry of Education and Culture in the Education Statistics Reports 2019 published by the Central Statistics Agency [www.bps.go.id](http://www.bps.go.id). and 34 Provinces Reading Literacy Activity Index 2019 published by Ministry of Education and Culture

Then from table 11 above, the Pearson correlation review was accomplished using a two-tailed test to determine the positive or negative relationship between the average percentage of libraries to school's ratio toward Alibaca index score/Reading Literacy Index Score. Pearson's Correlation coefficients ( $r$ ) are scaled such that they range from  $-1$  to  $+1$ , where  $0$  indicates that there is no linear association. The relationship increases and eventually

approaches a straight line (Schober et al., 2018). Several Pearson's correlation coefficients ( $r$ ) interpret the relationship. They are: negligible correlation (between  $\pm 0.0$  to  $\pm 0.30$ ), low correlation (between  $\pm 0.30$  to  $\pm 0.50$ ), moderate correlation (between  $\pm 0.50$  to  $\pm 0.70$ ), high Correlation (between  $\pm .70$  to  $\pm 0.90$ ), and very high correlation (between  $\pm 0.90$  to  $\pm 1.00$ ) ((Hinkle et al., 2003) as cited in (Mukaka, 2012)). The results of the Pearson correlation test can be seen in Table 12 below.

**Table 12. Relationship between Average Ratio Libraries to Schools toward Reading Literacy Score**

		average libraries to schools' ratio	Literacy Index Score
average libraries to schools' ratio	Pearson Correlation	1	.591**
	Sig. (2-tailed)		.000
	N	34	34

\*\* . Correlation is significant at the 0.01 level (2-tailed).

From Table 12 we can conclude that there were significant moderate positive relationships at 0.01 level of significance (2-tailed) between the national average libraries to school ratio and Alibaca Index/Reading Literacy Score ( $r = .591$ ,  $p < .01$ ). It also means that a library's presence in schools has moderately influenced students' literacy skills.

These findings support previous research (Miller & McKenna, 2016). They conveyed those four factors (Proficiency, Access, Alternatives, & Culture) have an essential and mutually exclusive role in literacy activities. Thus, considering one aspect will affect the function of the other factors. Access, for example, a library, is a supporting resource where students can take advantage of literacy resources. Another study (Laksono & Retnaningdyah, 2018) also confirmed that library facilities are one of the supporting infrastructures for the school literacy movement. Moreover, the study also revealed that some libraries did not meet the number of enrichment books. Based on the data, from 90 entries, only five (5.5%) meet the standards (check mark), indicating that many students have poor access to books. The current study revealed that public and private schools experienced notable development. Meanwhile, in the 2020/2021 school year, the ratio of libraries to primary schools is still 77%.

The Pearson correlation test revealed that the library's existence in schools has commonly impacted students' literacy skills. It proposed the existence of the library has an essential role in supporting the improvement of literacy skills, especially reading skills. Similar to the previous study ((Kastro, 2020) & (Adejimoh et al., 2021)), libraries have an influence on students' literacy skills, particularly in terms of improving students' reading skills. Important notes that the libraries are not just a room containing books but a storehouse of knowledge. They needed to be upgraded following the times and the needs of their readers.

Furthermore, the present study also offers some implications for central government leaders that allow them to confidently determine policies for accelerating library development, especially for primary schools. It is because until 2020/2021 school year, the ratio of libraries to schools was still in the range of 77%. It means that two to three out of 10 public schools do not yet have a library. Moreover, the government might also pay more attention to improving the quality of libraries in terms of infrastructure and human resources/librarians to improve the quality of libraries as a means of supporting student literacy improvement.



## Conclusion

The current study used secondary data, the percentage of libraries to schools at each level of education, from “Statistik Pendidikan” Catalogue from 2017 to 2021 issued by the Central Statistics Agency (BPS). Furthermore, the literacy index data 2019 from the Ministry of Education and Culture was also included in this study. Several highlights should be underlined. First of all, the trend of Library Growth in Indonesia continuously increased except in 2018 due to a regrouping policy for primary schools. Secondly, the library growth in Indonesia has shown a significant difference each year in public and private schools. Although in 2018, there was no significant difference in terms of the average percentage of library growth for schools in both public and private environments, what happened in 2019 and 2020 showed different things. Both public and private school libraries have demonstrated significant differences in the average percentage growth of libraries to schools in 2019 and 2020. Even in 2021, the average accumulation percentage of growth in the number of libraries in public schools is already above 90%, while in private schools, it is still below 90%. Lastly, a significant moderate positive relationship between the national average libraries to school ratio and Alibaca Index/Reading Literacy Score means that a library's presence in schools has moderately influenced students' literacy skills.

Finally, some limitations to the present study and recommendations for further studies should be declared. The data analysis was limited since it was only the secondary data used in this study, then it cannot be anticipated and is beyond the authority of this study. Next, the limitations of the data in this study can also be seen in the year used for the literacy score results. It was 2019 data, before the pandemic. Related to the data on the number of schools, school libraries, and school library management officers are still limited to schools under the authority of the Ministry of Education and Culture. It does not include *Madrasah Ibtidaiyah* (primary schools), *Tsanawiyah* (junior high schools), and *Aliyah* (senior high school), which are under the authority of the Ministry of Religion.

## Recommendation

Recommendations for further studies employing the latest literacy score data may reveal new facts and provide different outcomes. Moreover, other researchers or practitioners could also conduct a regression test to see which factors other than the library influence increasing students' literacy skills. In addition, the role of the library and the creation of a comfortable reading room atmosphere for improving literacy learning can still be explored qualitatively. For central government or policy maker, they can continue the library development program, especially at the elementary school level, so that the ratio of the number of schools and libraries is proper.

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