Available online at www.ejal.info
http://dx.doi.org/10.32601/ejal.911522

Eurasian Journal of Applied Linguistics, 8(1) (2022) 97-110

EJAL
Eurasian Journal of Applied Linguistics

Do Gender and Regional Differences Affect Students' Reading Literacy? A Case Study in Indonesia

Andi Sukri Syamsuri[a*], Hartono Bancong[b]

[a*]*State Islamic University of Alauddin Makassar, Gowa, 92118, Indonesia*

[b]*University of Muhammadiyah Makassar, Makassar, 90221, Indonesia*

Correspondence Authors: sukri.syamsuri@uin-alauddin.ac.id

Received 5 October 2021 | Received in revised form 17 January 2022 | Accepted 25 February 2022

APA Citation:
Syamsuri A., S., Bancong H. (2022). Do Gender and Regional Differences Affect Students' Reading Literacy? A Case Study in Indonesia. *Eurasian Journal of Applied Linguistics, 8*(1), 97-110.
Doi: http://dx.doi.org/10.32601/ejal.911522

Abstract

Reading literacy is one of the key components in the teaching and learning process. This study aims to describe the differences in reading literacy of Indonesian students by gender and region and identify what factors are most likely to trigger these differences. An explanatory sequential mixed methods design was used through two stages to collect and analyze data: quantitative and qualitative. The total participants were 240 students and 8 teachers from both urban and rural schools. The results showed that there was a significant difference in the students' reading literacy score between male and female students ($t = 4.007$; $p = 0.000$) and between students in urban and rural areas ($t = 4.889$; $p = 0.000$) at the significance level of 0.05. This study concludes that female students have good perspective on reading, have high intrinsic motivation and task-focused behavior that altogether give higher impact on their reading literacy than male students do. In addition, differences in teacher quality, school facilities and infrastructures, learning environment, and sources of supporting materials are also the main factors why students in urban schools have better reading literacy than students in rural schools. The results of this study strengthen the sociocultural views that learning and development are influenced by the social and cultural environment of students.

Keywords: gender; Indonesian students; reading literacy; region; text comprehension

1. Introduction

Reading literacy is one of the key skills in the academic world. Reading literacy is not just a precondition for success in most aspects of adult life (Schwabe, McElvany, & Trendtel, 2015; Smith, Mikulecky, Kibby, Dreher et al., 2000) but it is also a prerequisite for success in most subject areas (Cunningham & Stanovich, 1998; Kern, Bean, Swan Dagen, DeVries et al., 2018). The assessment process is one area that requires reading literacy (I Andreeva, V Martynova, Vishnyakova, & I Solnyshkina, 2021). Students at the school also have several exams, such as the national exam which requires reading literacy to understand the text. Reading literacy does not relate to quick reading (Gönülal, 2018; Kose, Kayapinar, & Erkirc, 2021; Smith et al., 2000), yet it refers to the ability to understand the content of the text (Swanborn & de Glopper, 2002), find meaning explicitly and implicitly (Delgadova, 2015), and be able to accurately interpret it (Suggate, Schaughency, McAnally, & Reese, 2018). Through reading activities such as reading books,

* Corresponding Author.
Email: sukri.syamsuri@uin-alauddin.ac.id
http://dx.doi.org/10.32601/ejal.911522

newspapers, or other electronic media, knowledge can be obtained, and therefore reading is a fundamental skill in the process of transforming information into comprehension (Delgadova, 2015; Syamsuri, Chaeruman, & Ishaq, 2020).

The results of the study conducted by the Program for International Student Assessment (PISA) 2018 shows that the average reading literacy score of 15-year-old students in Indonesia is 371 (Oecd & Oecd, 2016; Pisa, 2019). Compared to the previous test in 2015, this number has decreased by 26 points (OECD, 2016). Based on PISA 2018 data, only around 30% of Indonesian students achieve reading proficiency at level 2, where the OECD average is 77% (P. Oecd, 2016; Pisa, 2019). At this level, students can identify main ideas in texts of medium length, find information explicitly, and can reflect on the purpose and form of the text. When compared to the countries involved in the 2018 OECD survey, Indonesia is only ranked 74th out of 79 countries (OECD, 2019a). Therefore, some efforts are needed to explore further why students' reading literacy in Indonesia is low.

Several previous studies have identified factors that contribute to students' reading literacy (Chen, Zhang, & Hu, 2021; Dong & Hu, 2019; Naidoo, Reddy, & Dorasamy, 2014; Xiao & Hu, 2019). Stuart, Stainthorp, and Snowling (2008) showed that self-motivation and parents' involvement each contribute 27% in influencing students' reading literacy. The quality of teachers, including knowledge about teaching and learning, and teaching experience, also affects students' reading literacy (Chen et al., 2021; Xiao & Hu, 2019). Kambara (2021) argued that culture significantly influences students' reading motivation, including the reading beliefs of teachers and parents. A number of studies have also shown differences in reading achievement between male and female students (Alfarwan, 2021; Deasley, Evans, Nowak, & Willoughby, 2018; Khorramdel, Pokropek, Joo, Kirsch et al., 2020; Ritonga & Sutapa, 2020; Tilstra, McMaster, Van den Broek, Kendeou et al., 2009; Torppa, Eklund, Sulkunen, Niemi et al., 2018), as well as the context of the location and school-levels of the students (Echazarra & Radinger, 2019; D. Wang, Wang, Li, & Li, 2017; J. Wang, Li, & Wang, 2018). However, the specific factors that influence why gender differences have an impact on students' reading literacy have not been clearly disclosed, especially in Indonesia. In addition, although a few studies revealed that students' reading literacy in urban areas is better than students in rural areas (D. Wang et al., 2017; J. Wang et al., 2018), other studies Echazarra and Radinger (2019); Kanniainen, Kiili, Tolvanen, Aro et al. (2019) also found that students in rural areas showed better performance than students in urban areas, especially in Belgium, England, and the United States. This gap encourages researchers to examine the situation in Indonesia, whether or not geographical differences have an impact on the reading literacy of Indonesian students.

In short, there are several important reasons why this study was conducted, namely the low reading literacy scores of Indonesian students based on the PISA survey, the disparity of Indonesian language scores obtained by students in rural and urban areas, and gender inequality that still occurs in Indonesian society. In fact, fewer women work than men at the national level, earn lower incomes (especially in the industry) and have fewer opportunities for promotion or leadership positions. Therefore, commemorating International Women's Day, March 8, 2021, the Indonesian Ministry of Education and Culture once again echoed the call for gender equality in Indonesia, especially in schools (Khorramdel et al., 2020; Marôco, 2021). The Ministry of Education and Culture emphasizes the need for a conducive and supportive learning environment for women to promote the emergence of more female leaders in the future.

The purpose of this study was to quantitatively describe the differences in students' reading literacy by gender and region, and to qualitatively examine what factors were most likely to influence these differences. Thus, the research questions in this study were as follows:

1) To what extent does reading literacy differ by gender in Indonesia?
2) To what extent does reading literacy differ between rural and urban schools in Indonesia?
3) What factors are most likely to influence disparities in reading literacy among Indonesian students?

2. Literature Review

Reading literacy

Traditionally, the capacity to read and write is regarded as literacy (Bormuth, 1973; Delgadova, 2015). People who are said to be literate are those who can read and write or are free from illiteracy. Research on literacy is generally related to strategies and skills that are needed in reading and interpreting printed texts (Street, Pishghadam, & Zeinali, 2015). Literacy was defined by the European Literacy Policy Network in 2016 as the capacity to read and write in such a way that persons can successfully understand and use written communication in both printed and electronic media (Kanniainen et al., 2019). In 2019, The phrase "reading literacy" is used by the Progress in International Reading Literacy Study (PIRLS), which has been monitoring international trends in the fourth grade's reading achievement since 2001. Reading literacy, according to PIRLS 2021, is defined as the capacity to comprehend and use those written language forms necessary by society and/or valued by individuals (Miles & Huberman, 1994). This view emphasizes that readers can construct meaning from the text in various forms and learn from several text types in order to gain knowledge about the world and themselves. Each type of text follows conventional forms and rules that help the reader's interpretation of the text.

According to Rupley (2011) providing chances for pupils to use their reading abilities and techniques in relevant and various forms of text is critical in the development of literacy skills. Even though students can only imagine the situation presented in the text, the events and actions described allowing the reader to experience themselves and reflect on their real situations. PISA included "written texts" in the definition of reading literacy: "understanding, using, evaluating, reflecting on and engaging with texts in order to achieve one's goals, to develop one's knowledge and potential, and to participate in society" (OECD, 2019b). In this view, PISA defines reading literacy as a larger collection of competencies that enable readers to engage with written material offered in one or more texts for a specified purpose. The term "reading literacy" as used in PISA covers a wide range of cognitive competencies, from basic decoding to vocabulary and grammar mastery. Therefore, reading literacy refers to the skills and abilities required to successfully deal with texts.

It is often assumed that the primary goal of reading is to comprehend what is read (Marôco, 2021). Reading is simply defined as the result of decoding and linguistic comprehension skills. In its most basic form, reading comprehension is described as the capacity to read a particular book fluently and grasp what is read to a tolerable degree (Suggate et al., 2018). At a deeper level, reading necessitates the ability to draw meaning from sentences including new terms (Schwabe et al., 2015), grasp the meaning of texts, and gain information from texts (Stuart et al., 2008). In short, reading comprehension represents a higher level of literacy skills (Kanniainen et al., 2019).

Gender and region factor

According to the findings of a PISA 2018 survey, Indonesian students' reading literacy score has always remained poor. Only approximately 30% of Indonesian students can identify the main idea in a medium-length text, locate information clearly, and can reflect on the purpose and form of the text (Oecd & Oecd, 2016). When compared to the countries participating in the 2018 OECD study, Indonesia ranks 74th out of 79 (Pisa, 2019). The findings of Syamsuri et al. (2020) and Ritonga and Sutapa (2020) research also demonstrate that reading literacy among Indonesian students remains low.

Gender differences are an interesting topic in reading literacy research. In the context of Indonesia, gender inequality is still found in social life. At the national level, a tiny percentage of women work in strategic positions, earn slightly lower incomes than men, and are less likely to gain promotion opportunities to high positions. Furthermore, due to early marriage, the dropout rate for female students in Indonesia remains high. This phenomenon cannot be separated from the view of some Indonesian people that boys and girls have different values. Whereas in several studies, girls have been shown to have advantages, especially in reading fluency (Deasley et al., 2018; Khorramdel et al., 2020; Wolter, Braun, & Hannover, 2015) and reading comprehension (Schwabe et al., 2015), including large-scale international studies, such as PISA 2018. Recently, Ritonga and Sutapa (2020) also revealed that girls outperform boys in the level of early childhood education in Indonesia.

Furthermore, the type of school is also an important factor that has been discussed by several researchers in recent years. Plenty of studies suggested that the school area is an influential factor in improving students' reading literacy (Dong & Hu, 2019). Generally, the reading literacy of students in urban areas is better than that of students in rural areas (Van Staden & Bosker, 2014; D. Wang et al., 2017; J. Wang et al., 2018). Stuart et al. (2008) revealed that social conditions trigger the lack of motivation of students in rural schools to acquire knowledge. There are still many students in the village struggling with some of the basic necessities of life, and education is a kind of luxury in life. However, in some countries such as Costa Rica, Germany, and Israel, the evidences showed no difference even Belgium, England, and the United States claimed that students in rural schools excelled in comparison to those in metropolitan schools (Echazarra & Radinger, 2019).

Overall, there are gaps in the literature regarding the geographic location of schools as a contributing factor to reading literacy. On the one hand, students in urban areas have higher reading literacy than students in rural areas (D. Wang et al., 2017; J. Wang et al., 2018), while students in rural schools are superior to students in urban schools (Echazarra & Radinger, 2019). This gap encourages researchers to investigate the issue in Indonesia, specifically whether or not geographical disparities affect the reading literacy of Indonesian students. Furthermore, the specific factors that influence why gender inequalities have an impact on students' reading literacy, particularly in Indonesia, have not been properly defined. Therefore, there is a need for a study to examine the extent of differences in reading literacy by gender and geographical area, as well as to determine the factors most likely to influence differences in reading literacy among Indonesian students.

3. Methods

3.1. Research design

An explanatory sequential mixed methods design was adopted in this study. According to Creswell and (Creswell & Creswell, 2017), explanatory sequential mixed techniques is one in which the researcher first does quantitative research, analyzes the results, and then builds on the findings using qualitative research to explain them in greater depth. Thus, the first part of this study is collecting and evaluating quantitative data, followed by the second stage of collecting and analyzing qualitative data to better explain the first quantitative data results. The research design of this study can be seen in Figure 1.

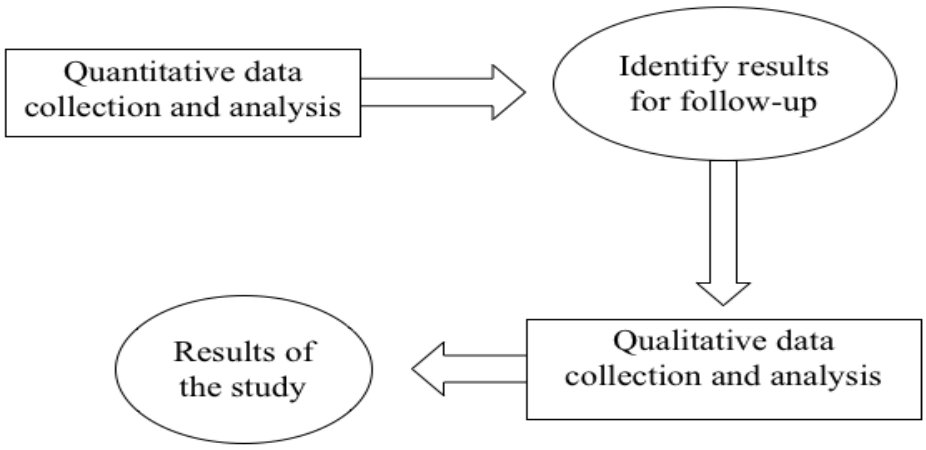

Figure 1. *Research design of this study*

3.2. Participants

The research was conducted in both urban and rural areas in South Sulawesi, Indonesia. The urban schools selected were in the city of Makassar, the capital of South Sulawesi Province. Meanwhile, the rural schools were in Enrekang Regency and Tana Toraja Regency, which are about 270-300 km from Makassar. The latter schools were selected not only because of their geographical distance from the city but also because the researchers understand the local language in these areas very well so that the researchers can examine the respondents' answers more deeply during interviews.

In the first stage, the number of respondents in each school was 30 students consisting of 15 male students and 15 female students, whose ages were in the range of 14-15 years old. The total number of respondents was 240 students, of which half were in urban schools and the other half were in rural schools. As shown in Table 1, A1, A2, A3, and A4 are codes for schools located in urban areas, B1 and B2 are codes for schools located in Enrekang Regency, and B3 and B4 are codes for those located in Tanah Toraja Regency. In the second stage, we selected 3 students from each school as the subjects by using purposive sampling. Furthermore, as this study also considered gender differences, we took equal numbers of male and female students. For schools A1 and A3 in urban areas, there were 2 males and 1 female student, while in A2 and A4 schools, 1 male and 2 females. Likewise, for schools in rural areas, B1 and B3 schools contributed 2 males and 1 female student from each school, while B2 and B4 schools had 2 females and 1 male student as research subjects. To obtain more comprehensive qualitative data, we also interviewed one Indonesian teacher in each school. Therefore, the total research subjects in the second stage were 32 respondents consisting of 24 students and 8 Indonesian language teachers.

Table 1. *School codes and number of samples*

Gender	Urban Schools				Rural Schools			
	A1	**A2**	**A3**	**A4**	**B1**	**B2**	**B3**	**B4**
Male	15	15	15	15	15	15	15	15
Female	15	15	15	15	15	15	15	15
Total	30	30	30	30	30	30	30	30

3.3. Data collection and procedures

The study's initial step tries to categorize students' reading literacy by gender (male and female) and geographic location (urban vs. rural). The researcher does not alter or change any variables in descriptive research; instead, they are only observed and measured (Creswell & Creswell, 2018; Tashakkori & Teddlie, 2010). Reading comprehension is the main indicator of students' reading literacy, so the cloze test was used to obtain the data. Cloze test is used to measure a person's reading comprehension (Gellert & Elbro, 2013; Gönülal, 2018). The steps in using the cloze test are: (1) choosing a discourse that is at least 250 words long, (2) leaving the first and last sentences intact, (3) starting the omission from the second sentence, and at each of the n-th word, blanks are marked with horizontal line. The examples are as follows:

Adolescence is a period of transition from childhood to early adulthood. Adolescents are in the (age) range of 10 to (21) years. At that time, (Adolescents) were looking for their (identity) . In this period, major (changes) occurred regarding the maturity of (spiritual) and physical functions, especially (sexual) functions. Adolescents should be given (character) education so that they direct (their interest) in positive activities.

Furthermore, the discourse from the 2013 Curriculum textbook version of the Ministry of Education and Culture of the Republic of Indonesia was chosen as the main source of the texts prepared for students. This textbook is a mandatory handbook and is available at each of the schools involved in this study. To obtain varied research data, we used five types of discourse/text: exposition, explanation, review, persuasive, and drama. These five types of texts were given to each respondent with a total of 100 words of blanks for each type of text. The validity of the research instrument used content validity. We invited three experts voluntarily to validate the cloze text instrument used in this study. Following a content validity test, the instrument was changed based on experts' opinion. The instrument was revised twice before the experts accepted it without additional revisions. Following expert validation, a pilot was carried out to determine that the instrument was suitable. A person's response to a statement is said to be reliable if it is constant or stable across time (Creswell & Creswell, 2017). This pilot study effort included 40 individuals. The data from the pilot study were then analyzed using SPSS 25. Cronbach alpha was used to determine the instrument's reliability, and a value of 0.815 was achieved.

The second stage of this study aims to identify the factors that influence the differences in reading literacy of students in Indonesia by gender and region. To do so, we interviewed 32 selected respondents after collecting and analyzing the quantitative data. The interviews were conducted individually by using open-ended questions. Before the interview, all respondents have signed a consent form to participate without coercion and to provide truthful information.

3.4. Data analysis

To analyze quantitative data, the reading literacy scores for all types of texts were calculated. A descriptive data analysis was carried out to get a general picture of the data, including total, mean, maximum, minimum, median, variance, and deviation standard. An independent sample t-test was used to examine the degree of significance of variations in reading literacy between male and female students, as well as between students in urban and rural schools. If the significant value is less than $\alpha = 0.05$, it can be concluded that there is a significant contribution between variables. On the other hand, if the significant value is greater than $\alpha = 0.05$, it can be concluded that there is no significant contribution between variables. Before testing the hypothesis with an independent sample t-test, normality and homogeneity test were first performed to determine whether the data were normally distributed and homogeneous. The data were analyzed using the SPSS version 25.0 program.

Qualitative data were analyzed using Miles and Huberman (1994) data analysis model: reduction of data, presentation of data, and conclusion/verification. To code the factors that cause differences in students' reading literacy, we used the data coding method suggested by Skelton and Francis (2011). They split the data coding process into two cycles. The first cycle of coding is used to summarize the data segments, while the second cycle of coding is used to arrange the data summaries into categories. For the reliability of data analysis, member checks were carried out. We also shared and discussed with two linguistic and language education researchers that are invited independently. For better reliability, the discourse was further analyzed by re-listening to the audio recording along with interview transcripts, respondents' notes, and our notes. After valid data were obtained through the data triangulation process, we discussed and classified them until we reached an agreement rate of around 94%. To strengthen the credibility of the data analysis, we also provided respondents the chance to verify whether our interpretation was biased or not.

4. Results

The results of this study were divided into two stages. The first stage presents a quantitative analysis of the comparison of students' reading literacy scores based on gender (male vs. female) and geographic area (urban vs. rural). The second stage presents a qualitative analysis that supports the results in the first stage.

4.1. Quantitative results

4.1.1. Differences in reading literacy scores by gender

As seen in Figure 2, the average scores of male students in urban areas for exposition, explanation, review, persuasive, and drama texts are 52.60, 45.33, 50.60, 49.80, and 36.00, respectively. This means that male students found the exposition text the easiest to understand, while drama text is the most difficult of all. In contrast, female students in urban areas are very good at understanding review texts with an average score of 64.98, followed by exposition and persuasive texts with average scores of 56.15 and 54.72, respectively. Meanwhile, male students in rural areas obtained the highest average score (53.35) in reading review texts and the lowest score (37.55) in drama texts. Similarly, female students showed better understanding in review text with an average score of 54.95 and found the drama text the most difficult to understand with an average score of 38.40.

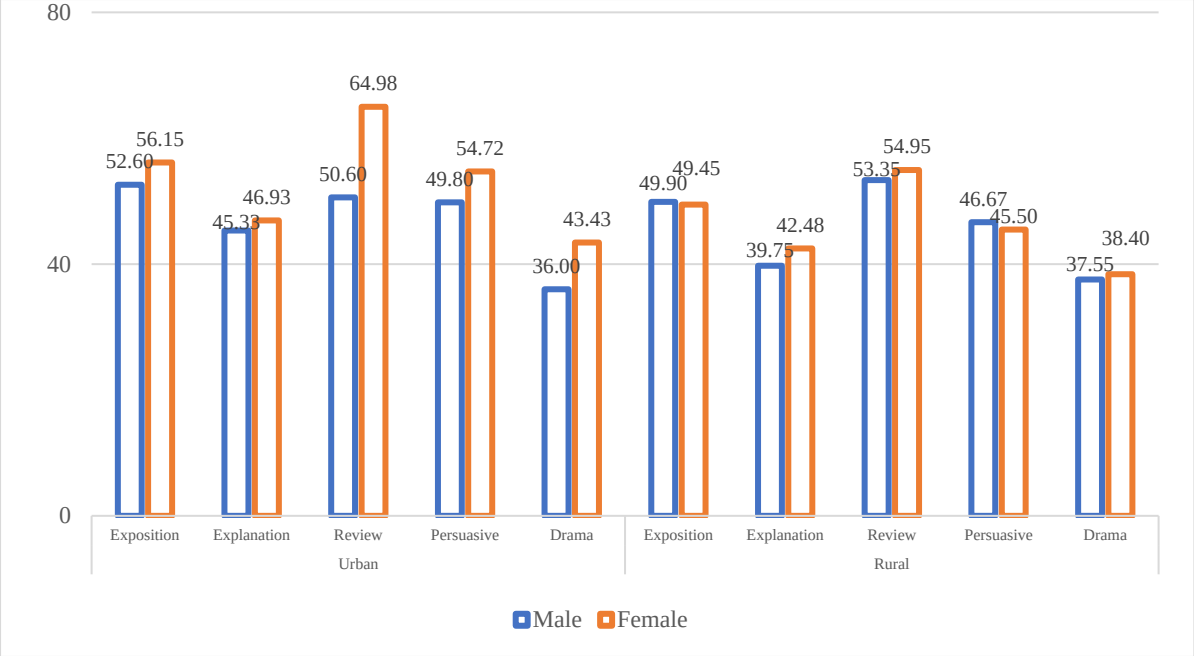

Figure 2. *Students' reading literacy scores by gender*

Based on the scores presented in Figure 2, it is known that the easiest text to understand by both male and female students in urban and rural areas is review texts. Interestingly, although they showed similar performance, the urban students' scores in review and drama texts are significantly different, while rural students gain almost the same scores in all types of texts tested for both male and female students.

To answer the first research question, an independent sample t-test was conducted. Figure 3 shows the findings of the analysis.

Independent Samples Test

		Reading literacy score	
		Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances	F	2.003	
	Sig.	.158	
t-test for Equality of Means	t	-4.007	-4.007
	df	238	231.218
	Sig. (2-tailed)	.000	.000
	Mean Difference	-3.54500	-3.54500
	Std. Error Difference	.88480	.88480

Figure 3. *The results of the independent sample t-test by gender*

As we can see, there is a difference between the average score of reading literacy of male and female students at a significance level of 0.05 ($t = 4.007$; $p = 0.000$). Assuming that the two groups have the same variance, the results of the independent sample t-test revealed that the difference between the average reading literacy scores of male students ($N = 120$; $M = 46.15$; $SD = 6.24$) and female students ($N = 120$; $M = 49.70$; $SD = 7.42$) was statistically significant. By using Cohen's d equation, the effect size value obtained is 0.52 (medium effect). This indicates that gender has a medium effect on students' reading literacy scores.

4.1.2. Differences in reading literacy scores by geographic area

As shown in Table 2, the mean score of students' reading literacy for exposition, explanation, review, persuasive, and drama texts in urban areas are 54.38, 46.22, 57.71, 52.26, and 39.72, respectively. This means that review text is the easiest text to understand, while drama text is the most difficult of all for urban students. Similarly, for rural students, the review texts (54.53) are the easiest text to understand, and the most difficult one is drama text.

Table 2. *Students' reading literacy scores by geographic area*

Item	Students' reading literacy scores									
	Urban schools					Rural schools				
	Exposition	*Explanation*	*Review*	*Persuasive*	*Drama*	*Exposition*	*Explanation*	*Review*	*Persuasive*	*Drama*
Mean	54.38	46.22	57.71	52.26	39.72	50.13	39.88	54.53	46.25	38.10
Maks.	83	83	92	83	77	76	60	83	78	77
Min.	33	30	30	30	21	30	20	31	28	17
Median	55	45	56	50	40	47	40	51	45	37
Variance	101.68	92.22	189.64	110.75	123.82	108.55	54.72	168.20	68.12	95.40
Std. Dev.	10.08	9.60	13.77	10.52	11.13	10.42	7.40	12.97	8.25	9.77

Furthermore, an independent sample t-test was also used to see whether there is a significant difference in reading literacy levels between urban and rural students. Figure 4 depicts the findings of the analysis.

Independent Samples Test

		Reading literacy score	
		Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances	F	1.629	
	Sig.	.203	
t-test for Equality of Means	t	4.889	4.889
	df	238	233.089
	Sig. (2-tailed)	.000	.000
	Mean Difference	4.37167	4.37167
	Std. Error Difference	.89417	.89417

Figure 4. *The results of the independent sample t-test by region*

As seen, there is a difference between the average reading literacy scores between students in urban and rural areas at the significance level of 0.05 (t = 4.889; p = 0.000). Assuming that the two groups have the same variance, the results of the independent sample t-test revealed that the difference in the mean scores between students in urban areas (N = 120; M = 50.10; SD = 7.41) and students in rural areas (N = 120; M = 45.73; SD = 6.40) was statistically significant. By using Cohen's d equation, the effect size value obtained is 0.63 (medium effect). This indicates that the geographic area (urban and rural) has a medium effect on students' reading literacy scores.

4.2. Qualitative Results

The results of the quantitative data analysis showed that there were significant differences in the reading literacy scores between male and female students and between students in urban and rural areas. In this section, a qualitative analysis is carried out after conducting in-depth interviews with the respondents. The results of the data analysis are described below.

4.2.1. The reading literacy scores of female students are higher than male students

The data analysis showed that the difference in reading literacy scores between female and male students was influenced by three factors as follows:

(1) The difference in students' perception

The results of the data analysis depict that male-students have different perceptions about reading. They tend to believe that reading is an activity that is mostly done by women. This perspective, then, influences their willingness to read. The following is a piece of interview transcript of the male students that supports this argument.

P Do you read any storybooks or comics in your free time?
R_{12} Yes, but very rarely. I usually read when I need important information or I have an assignment from school. I hardly ever read comics, storybooks, or novels.
P Why?
R_{12} Because I think it's a women thing. I mean, my mother always reads stories before going to bed. She often reads comics or storybooks to my sister. While my father never does it.
P So, in your opinion, reading is mostly for women?
R_{12} Yes, I think so because I rarely see my father reading, and neither do my male friends at school. Instead, the girls like to read novels or short stories.

From the transcript above, we know that male students, observing the women's reading habit around them, assume that reading is a feminine activity and it is against their masculinity ethics. Hence, male students tend to be less engaged in reading unless it is urgent or important to them.

(2) The difference in intrinsic motivation

The results of data analysis showed that male students exhibited lower intrinsic desire to read than female students. During the interview, most of the female respondents admitted that they often spend their time reading even if they are not told to do so. However, only 3 out of 12 male students who did the same. The following is a piece of the interview transcript with a male student that supports this argument.

P What do you usually do in your spare time?
R_{17} When I am at home and have nothing to do, I usually play video games.
P Why do you prefer playing video games in your spare time instead of reading books?
R_{17} Because I think playing video games is more fun and challenging than reading (laughing).
P Why is it like that?
R_{17} Because I am less motivated to read, honestly, unless the material is very interesting or the teacher asks me to. I don't really have my own desire to read.

The transcript above shows that male students preferred doing more challenging activities like playing video games than reading. They will read-only if the material is very interesting or if their teachers ask them to. With low intrinsic motivation, it is more likely that students' reading literacy is also low.

(3) The differences in students' behavior towards tasks

The results of interviews with several Indonesian teachers showed that students showing higher task-focused behavior have better reading skills. The following is a transcript of an interview with a teacher at an urban school.

P In addition (motivation), why do female students have higher reading scores than male students?
R_{32} Based on my experience, female students are more focused on doing assignments than male students. When we asked them to do the work, the female students were more diligent and focused on the task, while the male students found it difficult to focus.
P So, there are differences in behavior shown by male and female students?
R_{32} Yes, exactly. Female students showed a higher level of attention to the given task. When we asked them to read and do problem-solving, they did …. However, they (male students) found it difficult to focus for a long time. Some even tried to avoid the task.

The interview transcripts above showed that male students found it more difficult to focus on the task given or even tried to avoid it. On the contrary, female students paid more attention to the task. This difference causes male students to have lower reading scores than female students.

4.2.2. Students' reading literacy scores in urban areas are higher than in rural areas

The results of data analysis show that the difference in reading literacy scores between students in urban areas and rural areas is influenced by four factors as follows:

(1) The differences in teacher quality

From the results of interviews conducted, it is found that teachers in urban schools are highly exposed to professional development trainings through regular teacher meetings with other schools. Teachers' competence is good because they have opportunities to continually update and upgrade their knowledge. Meanwhile, teachers in rural areas, most of whom are honorary teachers, have less opportunities to develop their competencies, especially when it comes to teaching methods and techniques. The following is a transcript of an interview with a teacher at a rural school.

P Do you join any regular meetings with the Indonesian language teachers from other schools?
R_{33} Very rarely because no facilitator is willing to visit. Maybe because of the long distance. It is different from the teachers in the city. A friend of mine told me that they (teachers in the city) meet regularly every month so that their knowledge will be updated.
P Yes, you are right, but there are several Indonesian teachers in this sub-district, right? Why should you wait for the facilitators from the city?
R_{33} Yes, right. But you know…we have the same level of quality (with a smile). What we need is someone who has more knowledge, a reliable facilitator… so that our knowledge can be enriched.

From the interview transcript above, we know that teachers in rural areas lack the training for professional development. This is different from teachers in urban areas who can easily hold regular monthly meetings by inviting facilitators. As a result, there exist disparities in teacher quality between urban and rural location, not only in terms of knowledge but also skills.

(2) Differences in facilities and infrastructure

The most striking difference between schools in urban and rural areas is the facilities and infrastructure. Based on the results of interviews conducted with teachers and students in rural schools involved in this study, only 3 out of 4 schools have computer laboratories, and only two of them that can connect to the internet. In contrast, all the urban schools involved in this study have computer laboratories that are well connected to the internet and even provide free wi-fi. In addition, their library facilities are also different in that urban schools provide more books and references for students. These differences can influence the quality of students' reading literacy in urban and rural areas. The better and more complete the facilities or infrastructure in a school, the more effective the learning process for students will be.

(3) The difference in learning environment

A comfortable and effective learning environment will promote conducive learning activities to support success in learning. The results of data analysis show that the school and classrooms in rural areas are smaller than those in urban schools, and the student-teacher ratio is also low. 2 of 4 rural schools involved in this study lack teachers so that the teaching and learning process did not run effectively. One of the respondents said:

R_{26} Even though there are no teachers, we still diligently come to school. We arrive before the class starts. However, when we get to school, we just spend time sitting in the class or playing while waiting for the next subject.

The data analysis results also reveal that only 5 out of 12 students in rural schools say that their Indonesian teacher provides extra help when needed, whereas 100% of students in urban schools said that their Indonesian teachers were ready to assist in case students needed it. When we interviewed the teacher, they said, "we are happy when we can give additional lessons after school as we can improve the abilities of our students, and we also get additional income." On the contrary, this cannot happen in rural schools due to a lack of funds.

(4) The differences in sources of supporting learning materials

Basically, urban and rural schools utilize the same primary sources of learning materials, that is, the Ministry of Education's version of the Indonesian language textbook. However, the quantity of textbooks available and the other learning resources are far less than schools in urban areas. Besides that, as the rural schools have a limited number of computers connected to the internet, the students and more likely to rely on textbooks available in the library, which are also very limited. Being connected to the internet can help teachers and students to find more learning resources and references easily and quickly. Most students in urban schools benefit from these conditions, while those in rural areas do not. This condition can also affect the students' reading literacy.

5. Discussion

The research findings in this study indicate that there are statistically significant differences in students' reading literacy scores between male and female students. This means that there are differences in reading achievement by gender. According to the quantitative findings of the study, male students have a reading literacy score of 46.16, while female students have a score of 49.70. Following up on the quantitative findings, a qualitative study was done, with participants being interviewed to assess their attitudes regarding reading. First, male students assume that reading is generally for women. Skelton and Francis (2011) state that beliefs having been constructed in a person's mind will be a determinant in carrying out activities. Observing the woman's reading habit builds up men's opinion that reading is a feminine activity and it is against the masculine code of ethics. Second, the male students in this study have low motivation to read. The lack of motivation to read and the perception that reading is a female activity, contribute to male students' low reading literacy. In the text drama, for example, several male students' answer sheets were discovered to be empty. This explains why men's reading literacy on drama texts is barely 36.78. Similar results have also been shown by other researchers Swanborn and de Glopper (2002); Wolter et al. (2015) that boys are less intrinsically motivated to read than girls. Third, female students showed higher task-focused behavior than male students. Tilstra et al. (2009); Torppa et al. (2018) argued that boys tend to show avoidance behavior when given tasks that require high focus over a long period of time. For example, in a review text that requires high focus, female students in urban schools achieve an average score of 64.98, whereas male students achieve only 50.60. Therefore, the difference in behavior towards the tasks given is also the reason why male students have lower reading literacy scores than female students. Thus, the qualitative results corroborate the quantitative results achieved previously.

The biggest issue examined in this study is the gender inequality that still occurs in Indonesian society. At the national level, women are less likely to work, earn lower incomes, and are less likely to get promotion opportunities or occupy high positions. In addition, the number of women dropping out of school in Indonesia is still high due to early marriage. Based on the data from the Indonesian Central Statistics Agency (2021), the proportion of women who married before the age of 18 in the last three years (2018-2020) was still above 10%. In 2020, the proportion of women who are married before the age of 18 in rural areas was 15.24%, more than two times higher than that of in urban areas, which is only 6.82%. This phenomenon cannot be separated from the perspective of some people in Indonesia that boys and girls have different values. Having a son is considered more important and valuable than having a daughter. Boys are expected to become workers and leaders in all things.

The results of this study have confirmed the superiority of women, especially in reading literacy. Therefore, a conducive and supportive learning environment is needed for women at home, school, college, and the workplace to encourage the emergence of more women leaders in the future (Kanniainen et al., 2019). Our study also recommends several options to address this issue and to continue strengthening the efforts having been made regarding gender equality in education in Indonesia. For instance, organizing gender-sensitive teacher trainings, developing ideas on how to encourage more female students to become school leaders, and setting two teachers (male and female) teaching the same subject.

Furthermore, this study also demonstrates the disparity in reading literacy between students in urban and rural schools. As shown in the quantitative findings, students in urban schools have

an average score of 50.11, whereas students in rural schools have an average score of 45.73. Following up on the quantitative findings, qualitative research was carried out by interviewing participants. The results of interviews with respondents revealed four factors that influence these differences: teachers' quality, school facilities and infrastructure, learning environment, and sources of learning. The teachers in rural schools are less exposed to professional development activities due to long distances to the city. Also, in teaching, they only use textbooks available in the library in a very limited number, so the students' reading literacy cannot be well-developed. These difficulties impacted the students' reading quality. A few studies have shown that the quality of teachers, including knowledge and experience in teaching and learning, affects students' reading literacy (Chen et al., 2021; Dong & Hu, 2019; Naidoo et al., 2014). Teachers are ideally assigned to create classroom environments that encourage reading engagement will result in learners who enjoy reading (Chen et al., 2021; Syamsuri et al., 2020). Teachers are expected to teach students based on their cultural background to grow their literacy skills (Vaughn, Jang, Sotirovska, & Cooper-Novack, 2020).

Another issue examined in this study is related to school facilities and infrastructure, particularly the number of computers connected to the internet. Computers and the internet offer excellent opportunities to improve students' access and understanding on learning materials. Through the internet, students and teachers can find new references to support the teaching and learning process. In Scotland, for example, internet technology has been promoted as a tool for student learning in schools and collaboration among teachers through online learning platforms and community practices (Echazarra & Radinger, 2019). Facilities and infrastructure, especially the internet, should also become the focus of improvement in rural schools so that students in those schools will have the same opportunities as students in urban schools do. Despite all that, reading literacy has always attracted the attention of researchers in recent years because of its influence on academic achievement. Even, the OECD through the PISA program, every three years' surveys and releases reading literacy scores of students in several countries involved.

6. Conclusion

This study concludes that there are differences in the reading literacy of Indonesian students based on gender and geographical area. Female students have a positive perception on reading, have high intrinsic motivation, and show higher task-focused behavior that altogether gives a higher impact on their reading literacy than male students. In addition, differences in teacher quality, facilities and infrastructure, learning environment, and sources of supporting materials are the triggering factors why students in urban schools have better reading literacy than students in rural schools. Therefore, the results of this study strengthen the sociocultural views that learning and development are influenced by the social and cultural environment of students.

This study has some limitations, indeed, such as examining only two geographic areas, namely urban and rural schools. Therefore, further researchers need to take a larger and more varied school population (urban, suburban, and rural schools). In addition, it is necessary to make efforts to motivate male students to improve their reading literacy. If specific materials or media help male students to be interested in reading, future research is open to exploring how students engage with different sorts of reading materials that appeal to both male and female students. Furthermore, constructive efforts are needed to ensure good teacher quality both in urban and rural schools by intensively organizing activities such as teacher training or professional education programs in the future, especially for teachers in rural areas with government funding.

References

Alfarwan, S. (2021). Tertiary Level Saudi EFL Learners' Reading Strategies in Relation to Gender and Proficiency. *Reading Psychology, 42*(6), 577-605. doi:https://doi.org/10.1080/02702711.2021.1888350

Bormuth, H. (1973). Defining and assessing literacy. *Reading Research Quarterly, 1*, 10-12.

Chen, J., Zhang, Y., & Hu, J. (2021). Synergistic effects of instruction and affect factors on high- and low-ability disparities in elementary students' reading literacy. *Reading and Writing, 34*(1), 199-230. doi:https://doi.org/10.1007/s11145-020-10070-0

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches, 31-39*: Sage publications.

Cunningham, A. E., & Stanovich, K. E. (1998). What reading does for the mind. *American educator, 22*, 8-17.

Deasley, S., Evans, M. A., Nowak, S., & Willoughby, D. (2018). Sex differences in emergent literacy and reading behaviour in junior kindergarten. *Canadian Journal of School Psychology, 33*(1), 26-43. doi:https://doi.org/10.1177/0829573516645773

Delgadova, E. (2015). Reading literacy as one of the most significant academic competencies for the university students. *Procedia-Social and Behavioral Sciences, 178*, 48-53. doi:https://doi.org/10.1016/j.sbspro.2015.03.145

Dong, X., & Hu, J. (2019). An exploration of impact factors influencing students' reading literacy in Singapore with machine learning approaches. *International Journal of English Linguistics, 9*(5), 52-65. doi:https://doi.org/10.5539/ijel.v9n5p52

Echazarra, A., & Radinger, T. (2019). Learning in rural schools: Insights from PISA, TALIS and the literature, (pp. 1–78).

Gellert, A. S., & Elbro, C. (2013). Cloze tests may be quick, but are they dirty? Development and preliminary validation of a cloze test of reading comprehension. *Journal of Psychoeducational Assessment, 31*(1), 16-28. doi:https://doi.org/10.1177/0734282912451971

Gönülal, T. (2018). An investigation of the predictors of statistical literacy in second language acquisition. *Eurasian Journal of Applied Linguistics, 4*(1), 49-70. doi:https://doi.org/10.32601/ejal.460631

I Andreeva, M., V Martynova, E., Vishnyakova, D., & I Solnyshkina, M. (2021). Language Text Comprehension: Differences Between Different Generations of a Society. *International Journal of Society, Culture & Language, 9*(2), 82-90.

Kambara, H. (2021). Exploring Japanese fourth graders' motivation to read: A mixed-method study. *Literacy Research and Instruction, 60*(2), 180-197. doi:https://doi.org/10.1080/19388071.2020.1806416

Kanniainen, L., Kiili, C., Tolvanen, A., Aro, M., & Leppänen, P. H. T. (2019). Literacy skills and online research and comprehension: struggling readers face difficulties online. *Reading and Writing, 32*(9), 2201-2222. doi:https://doi.org/10.1007/s11145-019-09944-9

Kern, D., Bean, R. M., Swan Dagen, A., DeVries, B., Dodge, A., Goatley, V., . . . Walker-Dalhouse, D. (2018). Preparing reading/literacy specialists to meet changes and challenges: International Literacy Association's Standards 2017. *Literacy Research and Instruction, 57*(3), 209-231. doi:https://doi.org/10.1080/19388071.2018.1453899

Khorramdel, L., Pokropek, A., Joo, S.-H., Kirsch, I., & Halderman, L. (2020). Examining gender DIF and gender differences in the PISA 2018 reading literacy scale: A partial invariance approach. *Psychological Test and Assessment Modeling, 62*(2), 179-231.

Kose, N., Kayapinar, U., & Erkirc, S. (2021). The Effect of Tablet Use on EFL Reading Achievement. *Eurasian Journal of Applied Linguistics, 7*(2), 58-72.

Marôco, J. (2021). What makes a good reader? Worldwide insights from PIRLS 2016. *Reading and Writing, 34*(1), 231-272. doi:https://doi.org/10.1007/s11145-020-10068-8

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook, 1-80.*: sage.

Naidoo, U., Reddy, K., & Dorasamy, N. (2014). Reading literacy in primary schools in South Africa: Educator perspectives on factors affecting reading literacy and strategies for improvement. *International Journal of Educational Sciences, 7*(1), 155-167. doi:https://doi.org/10.1080/09751122.2014.11890179

Oecd, & Oecd. (2016). PISA 2015 Reading framework. *PISA 2015 Assesment and analytical framework: Science, Reading, Mathematic and Financial literacy*. doi:https://doi.org/10.1787/9789264266490-en

Oecd, P. (2016). PISA 2015 results (Volume I): Excellence and equity in education. *PISA, OECD Publishing, Paris.*

Pisa, O. (2019). results (Volume I): What students know and can do. *PISA, editor, (pp. 31–41). 1.*

Ritonga, R. A., & Sutapa, P. (2020). Literasi dan Gender: Kesenjangan yang Terjadi di Tingkat Pendidikan Anak Usia Dini. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini, 5*(1), 965-974. doi:https://doi.org/10.31004/obsesi.v5i1.749

Rupley, W. H. (2011). Research on teacher quality: Improving reading and writing instruction. *Reading & Writing Quarterly, 27*(3), 179-182. doi:https://doi.org/10.1080/10573569.2011.560094

Schwabe, F., McElvany, N., & Trendtel, M. (2015). The school age gender gap in reading achievement: Examining the influences of item format and intrinsic reading motivation. *Reading Research Quarterly, 50*(2), 219-232. doi:https://doi.org/10.1002/rrq.92

Skelton, C., & Francis, B. (2011). Successful boys and literacy: Are "literate boys" challenging or repackaging hegemonic masculinity? *Curriculum Inquiry, 41*(4), 456-479. doi:https://doi.org/10.1111/j.1467-873X.2011.00559.x

Smith, M. C., Mikulecky, L., Kibby, M. W., Dreher, M. J., & Dole, J. A. (2000). RRQ Snippet: What Will Be the Demands of Literacy in the Workplace in the Next Millennium? *Reading Research Quarterly, 35*(3), 378-383. doi:https://doi.org/10.1598/RRQ.35.3.3

Street, B., Pishghadam, R., & Zeinali, S. (2015). Changes and challenges of literacy practices: A case of a village in Iran. *International Journal of Society, Culture & Language, 3*(1), 16.

Stuart, M., Stainthorp, R., & Snowling, M. (2008). Literacy as a complex activity: Deconstructing the simple view of reading. *Literacy, 42*(2), 59-66. doi:https://doi.org/10.1111/j.1741-4369.2008.00490.x

Suggate, S., Schaughency, E., McAnally, H., & Reese, E. (2018). From infancy to adolescence: The longitudinal links between vocabulary, early literacy skills, oral narrative, and reading comprehension. *Cognitive Development, 47*, 82-95. doi:https://doi.org/10.1016/j.cogdev.2018.04.005

Swanborn, M. S. L., & de Glopper, K. (2002). Impact of reading purpose on incidental word learning from context. *Language learning, 52*(1), 95-117. doi:https://doi.org/10.1111/1467-9922.00178

Syamsuri, A. S., Chaeruman, U. A., & Ishaq, I. (2020). The Competence of Indonesian Language and Literature Teachers through Network Learning in Two Teacher Professional Education Modes. *International Journal of Advanced Science and Technology, 29*(4), 1783-1794.

Tilstra, J., McMaster, K., Van den Broek, P., Kendeou, P., & Rapp, D. (2009). Simple but complex: Components of the simple view of reading across grade levels. *Journal of research in reading, 32*(4), 383-401. doi:https://doi.org/10.1111/j.1467-9817.2009.01401.x

Torppa, M., Eklund, K., Sulkunen, S., Niemi, P., & Ahonen, T. (2018). Why do boys and girls perform differently on PISA Reading in Finland? The effects of reading fluency, achievement behaviour, leisure reading and homework activity. *Journal of research in reading, 41*(1), 122-139. doi:https://doi.org/10.1111/1467-9817.12103

Van Staden, S., & Bosker, R. (2014). Factors that affect South African reading literacy achievement: evidence from prePIRLS 2011. *South African Journal of Education, 34*(3), 1-9.

Vaughn, M., Jang, B. G., Sotirovska, V., & Cooper-Novack, G. (2020). Student agency in literacy: A systematic review of the literature. *Reading Psychology, 41*(7), 712-734. doi:https://doi.org/10.1080/02702711.2020.1783142

Wang, D., Wang, J., Li, H., & Li, L. (2017). School context and instructional capacity: A comparative study of professional learning communities in rural and urban schools in China. *International Journal of Educational Development, 52*, 1-9. doi:https://doi.org/10.1016/j.ijedudev.2016.10.009

Wang, J., Li, H., & Wang, D. (2018). Bridging the rural-urban literacy gap in China: a mediation analysis of family effects. *Journal of research in childhood education, 32*(1), 119-134. doi:https://doi.org/10.1080/02568543.2017.1388308

Wolter, I., Braun, E., & Hannover, B. (2015). Reading is for girls!? The negative impact of preschool teachers' traditional gender role attitudes on boys' reading related motivation and skills. *Frontiers in psychology, 6*, 1267. doi:https://doi.org/10.3389/fpsyg.2015.01267

Xiao, Y., & Hu, J. (2019). Assessment of optimal pedagogical factors for Canadian ESL learners' reading literacy through artificial intelligence algorithms. *International Journal of English Linguistics, 9*(4), 1-14. doi:https://doi.org/10.5539/ijel.v9n4p1