



A comparative study of early grade writing assessment in 2nd grade elementary students in urban, suburban, and rural areas in Pekalongan

Adiyatma Nur Zain Purohita   ^{1*}, Moh. Farizqo Irvan  ¹

¹ Universitas Negeri Semarang, Semarang, Indonesia, 50229

Article info	Abstract
Keywords: early grade writing assessment (egwa), elementary school students, urban-suburban-rural areas comparison	This study provides evidence of early literacy gaps as measured by EGWA in the Indonesian context. This study aims to compare the early writing skills of second-grade elementary students in urban, suburban, and rural areas. The study used a quantitative, comparative research design and was conducted in three elementary schools in Pekalongan. The subjects were second-grade students selected using simple random sampling. Data collection was carried out using an early writing skills test administered with the standardized and reliable Early Grade Writing Assessment (EGWA) instrument. The data obtained were analyzed statistically to determine differences in early writing skills across regions. The research results indicate a significant difference in the average between urban and rural areas. The averages are 89.30 for SDN 01 Pekuncen (urban area), 88.03 for SDN 03 Sragi (suburban area), and 80.55 for SDN 03 Tengeng Wetan (rural area). The analysis results using the Kruskal-Wallis test indicate significant differences in early literacy scores between children in urban and rural areas, providing initial empirical evidence of the literacy gap measured by EGWA in Indonesia.

* Corresponding Author.

E-mail address: adiyatma14@students.unnes.ac.id (Adiyatma Nur Zain Purohita)

DOI: <http://dx.doi.org/10.33578/jpkip.v15i2.273-287>

Received 5 January 2026; Received in revised form 11 February 2026; Accepted 4 March 2026

Available online 23 April 2026

e-ISSN 2598-5949 | p-ISSN 2303-1514 © The Authors.

1. Introduction

Language skills are fundamental and must be mastered as the primary foundation for the learning process at school. The four language skills are listening, speaking, reading, and writing (Mawarena, 2022). These four skills are interrelated and complementary. However, of the four, writing is particularly complex because it involves not only linguistic abilities but also psychomotor coordination, cognitive abilities, and an understanding of language structure (Ayu et al., 2022). Writing is a way of conveying information or messages indirectly using written symbols, resulting in meaningful text that can be read by others (Henanggil et al., 2024). Writing

is permanent, thereby it can be read repeatedly without being limited by space or time, making it a crucial medium of communication in education and everyday life. Therefore, developing writing skills needs to begin early, especially in elementary school, to build a strong literacy foundation for children's intellectual and emotional development.

Writing skills at the elementary school level, particularly in lower grades such as second grade, remain at an early, foundational stage. At this stage, students begin to learn letter forms, words, simple sentences, and correct writing structures (Fauziah & Gumindari, 2024). Early writing skills are crucial for children's literacy development, as they lay the foundation for advanced writing and aid mastery of other subjects. Furthermore, these skills support students' cognitive, psychomotor, and affective development (Ma'rifatul Khasanah & Sigit Yulianto, 2024). Psychologically, writing is a complex activity because it involves the mental process of transforming abstract ideas into concrete written form. This process requires coordination between the brain, hand, and eye, as well as the ability to structure words and sentences logically. Therefore, early writing instruction aims not only to teach children how to hold a pencil and form letters, but also to help children develop their thinking, creativity, and communication skills through writing.

The process of developing early writing skills should be carried out in stages aligned with the child's developmental level. Children must go through several stages, starting from free drawing, imitating letter shapes, writing their own names, and ultimately being able to write simple sentences with teacher assistance (Susilo et al., 2024). A supportive literacy environment, both at home and at school, is a crucial factor in accelerating the mastery of these skills. Under ideal conditions, children will receive sufficient stimulation through reading storybooks, playing with letters and numbers, and engaging in structured, enjoyable writing exercises.

Field observations indicate a gap between the theory and practice of early writing instruction. Numerous students are in lower grades, particularly second grade at Sragi 05 Public Elementary School. Based on researchers' observations, there are 26 second-grade students at Sragi 05 Public Elementary School, yet the researchers sampled only 10 students, consisting of 6 males and 4 females. There are differences in early writing skills. Of the 10 students, 2 males still have difficulty with early writing skills. This is indicated by messy handwriting, difficult-to-read letter arrangement, inappropriate use of punctuation, and an inability to construct simple sentences independently. These findings are also supported by the findings of other researchers, based on the results of research interviews conducted by Fadhillah Nurlaily at Nurul Huda Islamic Elementary School located in West Jakarta City, which found that 5 out of 10 students in grade 1 had low writing skills (Nurlaily & Pranata, 2022). Based on the research results conducted by Intan Nuraini (2022) in class II of Puncakbatu Elementary School in Sukabumi, the writing skills results were around 53% (Artikel, 2022). This field observation is not intended to be part of the research's primary empirical data, but rather as an initial illustration that reinforces the urgency of the problem based on field findings and supported by previous research. The empirical data for this study were obtained from the schools that constituted the research sample.

This phenomenon can occur in various regions, including urban, suburban, and rural areas. Low initial writing skills are caused by several factors, including a lack of literacy stimulation from an early age, monotonous and outdated learning methods, limited learning support facilities and infrastructure, and differences in access to technology and educational resources (Nurholishoh et al., 2024). Family socioeconomic and environmental factors also influence the development of children's literacy skills (Muhalimah et al., 2023). Although the essentials of early writing skills have been widely discussed, there remains limited empirical evidence on differences in students'

early writing skills across geographic and environmental contexts, as measured by standardized assessment instruments.

Urban, suburban, and rural areas are three types of regions with distinct geographic, social, economic, and infrastructure characteristics (Istiqoma & Anggriawan, 2023). Urban areas are characterized by high population density, rapid physical development, and extensive access to educational, health, transportation, and technological facilities. These areas generally have dynamic economies, with the non-agricultural sector as the primary driver (Firsas Asha Sabitha, 2022). Suburban areas are transitional areas between urban and rural areas, with characteristics that are a mix of both; they typically have medium population densities, limited access to comprehensive urban facilities, but are more developed than rural areas. Meanwhile, rural areas generally have low population densities, an economic structure still dominated by the agricultural sector, and more limited access to educational facilities and infrastructure. These differences underscore the importance of comparing the conditions of these three regions across various aspects of development, including literacy skills such as early writing of elementary school students.

Differences in geographic and social contexts between regions, such as urban, suburban, and rural areas, lead to variations in the quality and access to education. Urban areas typically have more educational resources, adequate infrastructure, and extensive access to literacy development programs. Conversely, suburban and rural areas often face limitations in terms of qualified educators, educational facilities, and support from parents and the surrounding community (Mercandalli et al., 2023). Access to reading materials, stationery, and educational technology that supports writing instruction is, additionally, more limited in remote areas. Furthermore, parental education levels and awareness of the importance of writing literacy vary (Aram & Yashar, 2023). In urban areas, numerous parents actively help their children learn to write at home, whereas in rural areas, numerous children do not receive sufficient support from their families. This situation significantly impacts the development of students' early writing skills. Thus, it is crucial to conduct comparative studies to better understand these differences and gaps, enabling the formulation of appropriate strategies for each region.

The selection of three regions, urban, suburban, and rural, as research locations was based on differences in geographic, social, and economic contexts, as well as access to educational resources, which have the potential to influence the development of students' early writing skills. Urban areas generally have more adequate educational infrastructure, broader access to teaching materials and technology, and a social environment that is more supportive of literacy activities (Li et al., 2025). Suburban areas, meanwhile, are transitional areas with characteristics between urban and rural areas, with varying levels of access and quality of education (Sahana et al., 2023). In rural areas, however, there are often limited educational facilities and infrastructure, an inadequate number of teachers, and low literacy stimulation from the family and community environment (Prastyo et al., 2024). By comparing early writing skills across these three regions, researchers can more comprehensively identify differences in students' writing abilities and explore environmental factors that contribute to children's early literacy development. In addition, this comparative approach helps formulate learning strategies appropriate to the conditions and needs of each region. The differences in the characteristics of urban, suburban, and rural environments not only affect the availability of educational resources but also directly impact students' early literacy development. However, empirical evidence on the systematic comparison of students' early writing skills across these three environments remains limited, particularly in a regional setting in Indonesia, such as Pekalongan. Therefore, comparative

studies are crucial both scientifically, to enrich the early literacy literature, and practically, as a basis for formulating contextualized learning policies and strategies.

To measure early writing skills objectively and standardized, one instrument that can be used is the Early Grade Writing Assessment (EGWA). This instrument was designed by USAID as part of the Early Grade Reading Assessment (EGRA), yet has been specifically developed to measure writing skills in early elementary school. The EGWA provides an accurate picture of students' early writing skills, including aspects of spelling, sentence structure, fluency, and neatness (Wageman et al., 2005). By using this instrument, research results can be more valid and reliable, thus providing representative data on the level of early writing skills in various regions. Considering the differences in geographic, social, and economic backgrounds across regions, as well as the need to use a valid and reliable instrument such as the EGWA, a comparative study is warranted. The use of EGWA in this study creates a new contribution by enabling an objective, standardized comparison of early writing skills across geographic environments, a practice that has, until now, rarely been applied in early literacy studies in Indonesia.

To obtain a picture of the situation on the research site, a study was conducted comparing the early writing skills of second-grade students in urban, suburban, and rural areas. The results are expected to provide a comprehensive view of the level of early writing skills across various regions, as well as the factors influencing them. Through this research, it is hoped that recommendations can be developed to improve early writing instruction based on local needs. Furthermore, this research is expected to serve as a reference for educational institutions and teachers in designing appropriate programs to improve the quality of basic education in Indonesia, particularly in the aspect of writing skills. Based on this background, this study aims to analyze differences in the initial writing skills of second-grade elementary school students in urban, suburban, and rural environments in Pekalongan using the Early Grade Writing Assessment (EGWA) and to identify the magnitude of score differences among these environments.

2. Literature review

A study conducted by Rachmatini et al. (2022) entitled "Literature Analysis of the Problems of Early Writing Skills of First Grade Elementary School Students" states that the initial writing problem found among first-grade students is a lack of interest and enthusiasm in early writing, resulting in difficulty writing letters, words, and sentences. This is due to teacher-centred learning and inadequate facilities. This is evidenced by the similarities and differences identified in a literature analysis of 14 journals on elementary students' early writing skills. A study conducted by Sherlina Aulia (2025) entitled "Improving initial writing skills using the talking stick learning model of first-grade students at SDN 05 Padang Pasir, Padang City" stated that the initial writing skills of first-grade elementary students improved, especially in writing response sentences to command expressions using written language. This is evident from the results of the initial test, in which only 32% of students met the Minimum Completeness Criteria (KKM), and the average score was 62.5. After implementing the actions in Cycle I, the percentage of students who met the KKM increased to 67.85%, accompanied by an increase in the average score to 83.03. In Cycle II, the number of students who achieved the KKM continued to increase to 82.14%.

The research, conducted by Nugrahanta et al (2024) at Kanisius Elementary School in Sorowajan, aims to improve the initial writing skills of first-grade students through structured training. The initial writing skills focused on including the ability to write letters correctly and to maintain cohesiveness, accuracy, completeness, and proportionality in writing. Based on initial

observations, numerous students still experience difficulties with writing, such as unclear handwriting, reversed letters, and difficulty completing words. After the training, there was a significant 77.47% increase in the initial writing skills score, indicating that the intervention effectively helped children develop their basic writing skills. Based on the research results above, there is a relevant relationship to the research that the researcher is conducting, a study entitled "Early Writing Skills of Elementary Students: A Comparative Study in Urban, Sub-Urban, and Rural Areas".

In general, these studies indicate that early writing skills in elementary students are influenced by various factors, ranging from learning methods and training intensity to supportive learning environments. However, most studies still focus on learning interventions within a single school or regional context. Few studies have identified early writing skills as a construct simultaneously influenced by regional contextual factors (urban, suburban, and rural) and measured using standardized assessment instruments.

2.1 Early grade writing assessment

According to Wageman et al. (2005) Early Grade Writing Assessment is a tool used to measure the development and writing skills of elementary students, especially in grades 1 to 2. This assessment evaluates various aspects of early writing skills, including handwriting, spelling, sentence usage, and the ability to organize ideas in writing. The main purpose is to identify individual learning needs and provide teachers with feedback to inform the design of appropriate interventions.

The purpose of the Early Grade Writing Assessment (EGWA), according to Wageman, Hackman, and Lehman (2005), is to measure and document children's skills in creating writing units of increasing difficulty, from letters, words, sentences, to stories, with the aim of conveying meaning. Wageman et al. were interested in developing a writing assessment tool based on analytical scoring procedures with adequate technical characteristics for use as an initial screening and progress-monitoring tool. The EGWA consists of ten tasks of varying difficulty, ranging from copying letters to writing stories. The first four tasks consist of copying activities (copying letters, copying words, and copying sentences). The next four tasks are dictation activities (writing dictated words and pseudowords, and writing dictated sentences). Tasks 9 and 10 are free-writing tasks (writing sentences and stories). Children are asked to copy or write each letter, word, or sentence appropriately as indicated in the test protocol or as dictated by the examiner.

One of the main focuses of this assessment is writing skills, namely the ability to write letters correctly, maintain spelling accuracy, and write fluently. Research implies that children with a strong foundation in writing are better able to develop their compositional skills later in life. Therefore, structured practice in writing letters, words, and sentences is crucial in the early stages. Furthermore, writing assessments in early grades include an evaluation of students' ability to compose simple texts, both narrative and descriptive (Nadhira Audrey Emilia & Galih Kusumo, 2024). Students, for instance, may be asked to complete a story, copy a poem, or write a paragraph based on a picture. Through these activities, teachers can see how children understand writing structure, use appropriate vocabulary, and pay attention to spelling and punctuation. Early Grade Writing Assessment not only measures the level of early writing skills but also serves several purposes for improving the quality of education, including:

- 1) Identifying Early Writing Skills

This instrument aims to assess how children produce writing at varying levels of difficulty, from copying letters and writing words and sentences based on dictation to freewriting,

such as creating simple sentences or stories. This helps teachers understand students' strengths and weaknesses in the writing process.

2) Assessing Writing Skill Components

The EGWA not only assesses students' writing but also evaluates essential components, such as letter form and accuracy, the ability to write words correctly, the ability to connect thoughts logically, and the number of pieces produced within a specific timeframe.

3) Monitoring Student Progress Regularly

The EGWA is also used to monitor the development of students' writing skills over time. This helps teachers evaluate the effectiveness of their teaching methods and determine whether students have achieved the established standards.

4) Serving as a Guide for More Effective Writing Teaching

Data obtained from this assessment helps teachers design learning strategies appropriate to the child's developmental stage, provide specific feedback to students, and improve the quality of writing instruction in the early grades.

Thus, the Early Grade Writing Assessment is not merely a measurement tool but also an integral part of the learning process. Assessment data helps teachers create individual or group lesson plans, evaluate the effectiveness of teaching methods, and provide appropriate support to students who are still struggling. With systematic and ongoing assessment, children would be better prepared to face the challenges of writing at higher levels of education.

Although the EGWA is a widely developed and used instrument, its application in different educational and linguistic contexts still requires clarification regarding language adaptation, contextual appropriateness, and test administration procedures. In the Indonesian context, particularly for second-grade elementary students, the use of the EGWA needs to be adapted to the characteristics of the language of instruction, curriculum, and students' literacy experiences. In addition, to maintain measurement accuracy, the assessment process is carried out based on a predetermined rubric, and consistency of assessment between assessors (inter-rater reliability) is taken into account to minimize subjectivity in scoring. However, like other assessment instruments, EGWA has limitations, particularly in capturing the creative and contextual aspects of writing; thus, the assessment results should be interpreted carefully.

2.2 Urban, suburban, and rural areas

An urban area is a region with high population density, advanced infrastructure development, and a predominance of non-agricultural economic activities such as industry, trade, services, and government (Yang et al., 2025). Urban areas are characterized by relatively comprehensive public facilities (transportation, education, healthcare, and technology), dense settlement patterns, and a lifestyle that tends to be modern and heterogeneous. Social interactions in urban areas are typically formal, and population mobility is high.

Suburban areas are transitional areas between urban and rural areas, located around major cities. These areas generally serve as residential areas for people who work in urban areas, with moderate population densities and a mix of residential, small-scale commercial, and agricultural uses (Mercandalli et al., 2023). Suburban areas have relatively good access to the city center, yet retain several rural characteristics in both their physical environment and social interaction patterns.

Rural areas are areas with low population densities and economic activity dominated by primary sectors such as agriculture, plantations, livestock, and fisheries. Infrastructure and public facilities in rural areas are relatively limited compared to urban areas, and community

lifestyles are simpler and more homogeneous (Sahana et al., 2023). Social relations in rural areas are generally closer and more familial, with lower levels of population mobility.

Urban, suburban, and rural settings influence elementary school students' learning primarily through differences in access to learning resources, facility quality, and literacy environments. In urban areas, students generally have better access to books, libraries, digital technology, and teachers with more diverse training. This supports the development of writing skills through exposure to rich reading materials, the use of digital media, and a variety of writing exercises. In suburban areas, access to learning resources is mixed; while several students receive adequate technological support and reading materials, this support is unevenly distributed. Writing learning in these areas often develops well, but still relies on school initiatives and family support. Meanwhile, in rural areas, limited facilities, reading materials, and access to technology can restrict students' opportunities for diverse writing practice, resulting in learning that relies more heavily on textbooks and teachers.

In addition to facilities, the social and cultural environment also influences elementary students' writing skills. Students in urban areas tend to be exposed to formal written language earlier and more frequently, resulting in relatively faster development of ideas and written structures. In suburban areas, students' language experiences vary between urban and rural contexts, which can enrich written content but sometimes create inequalities in ability between students. In rural areas, the heavy use of regional languages and limited formal writing practice can affect mastery of written Indonesian, even though students often have rich contextual experiences to draw on for ideas. With the support of contextual and adaptive learning strategies, all three regions still have the same potential to develop students' writing skills.

Based on previous empirical findings, contextual factors such as access to learning resources, family literacy environments, and the quality of educational facilities have been shown to contribute to students' early literacy development. However, the relationship between these factors and early writing skills has not been extensively examined comparatively across urban, suburban, and rural settings using standardized assessment instruments. This situation indicates a research gap that underlies the importance of the comparative design in this study.

Based on the synthesis of the literature review, a research gap remains in comparing elementary students' early writing skills across geographic environments using standardized and contextualized assessment instruments. Therefore, this study is designed to address this gap by comparing the early writing skills of second-grade elementary school students in urban, suburban, and rural environments using the Early Grade Writing Assessment (EGWA).

3. Method

This research uses a quantitative approach. Ardiansyah et al (2023) explain that quantitative research is an approach that aims to collect and analyze data in the form of numbers or numerical measurements. This method is used to describe, explain, and test relationships between variables through statistical analysis. The main goal is to provide a clearer understanding of a phenomenon by collecting measurable, objectively analyzed data. This type of research is comparative research. According to Haq & Yasin (2025), the comparative method is a research approach used to determine whether there are differences between two variables in a particular aspect being studied. According to Nindi & Azkiya (2024), in comparative research involving several cases, the researcher's main objective is to compare the extent to which various treatment methods produce different impacts or results. To achieve this goal, a comparative research design is usually used. According to Syahriyah (2023), the comparative method aims to

describe and compare the existence of one research object with another. The comparative method is used to identify similarities and differences among two or more facts within each research object.

The research subjects were second-grade students in each of the urban, suburban, and rural areas. The sampling technique used in this study was cluster sampling, in which second-grade elementary school students from selected schools representing urban, suburban, and rural areas were involved as research participants. According to Ondeng & Rahman (2026), cluster sampling is a sampling technique in which the population is divided into groups (clusters). Moreover, several clusters are randomly selected, and all members in the selected clusters are sampled. Clusters are usually formed based on geographic areas or organizational units.

The data collection technique was a test. The test used in this study was the Early Grade Writing Assessment (EGWA) to measure early writing skills among second-grade students in urban, suburban, and rural areas. In this context, students' early writing skills were considered to have improved if the Early Grade Writing Assessment (EGWA) results indicated an increase. According to Wageman et al. (2005), the Early Grade Writing Assessment (EGWA) is a measurement tool for early writing skills that has been developed and standardized internationally; thus, its use in research does not require additional data validity tests, such as independent instrument validity and reliability. Therefore, if a researcher uses the Early Grade Writing Assessment instrument as a data collection tool in research on early writing skills, there is no need to conduct separate instrument validity and reliability tests, as long as the instrument is used according to the specified protocol. This makes the EGWA an effective, efficient, and reliable measurement tool in educational research, especially in early literacy.

The EGWA was administered by researchers, with assistance from classroom teachers, during regular school hours. Each testing session lasted approximately 5 minutes per task for each student. Assessments were conducted individually in a quiet classroom environment to minimize distractions. Student responses were scored using a standardized scoring rubric adapted from the original EGWA guidelines.

The ANOVA test is a statistical analysis method frequently used in comparative studies. This test also falls under the category of inferential statistics, a branch of statistics that draws conclusions from collected data. In an ANOVA test, the researchers examine whether there are significant differences among several groups. The null hypothesis in an ANOVA test states that all groups come from the same population; thus, the average (mean) and variation (variance) of the groups are assumed to be the same. For instance, in a study examining the effects of various treatments on a group of patients, the null hypothesis proposed is that there is no difference in effect among all the treatments, meaning that all treatments are assumed to produce the same results.

This study involved elementary students and was conducted in accordance with ethical standards for research involving children. Permission to conduct the study was obtained from the school authorities. Informed consent was obtained from parents or legal guardians prior to data collection, and students' participation was voluntary. Students' identities were anonymized, and all data were used solely for research purposes. Ethical approval from an institutional review board was not required for this study according to local regulations. The data supporting the research findings are available from the corresponding author upon reasonable request.

4. Results

The research was conducted in an urban area at SDN 01 Pekuncen. SDN 01 Pekuncen is a public elementary school located in Pekuncen Village, Wiradesa District, Pekalongan Regency, Central Java. There are 18 classes in this school, with each class level consisting of A, B, and C. The second class used for the research is class 2A, which consists of 30 students. Based on the analysis of 30 students from SDN 01 Pekuncen as subjects, the highest score is 97.74774775, the lowest score is 60.09615385, the mean is 89.30520799, the median is 91.3692281, the mode is ≈ 92.5 , and the standard deviation is 7.886070881. The frequency distribution of the initial writing skills of students of SDN 01 Pekuncen is shown in the following table:

Table 1. Frequency distribution of SDN 01 Pekuncen

Intervals		Frequency	Relative frequency	Cumulative frequency
60.10	66.40	1	0.033333333	1
66.40	72.70	0	0	1
72.70	79.00	1	0.033333333	2
79.00	85.30	4	0.133333333	6
85.30	91.60	9	0.3	15
91.60	97.90	15	0.5	30
Total		30	1	

The research was conducted in a suburban area, namely at SDN 03 Sragi, a public elementary school located in Sragi Village, Sragi District, Pekalongan Regency, Central Java. There are 12 classes in this school, where each class level consists of A and B. The second class used for the research is class 2A, which consists of 22 students. Based on the analysis of 22 students from SDN 03 Sragi as subjects, the highest score is 98.38709677, the lowest is 40.60606061, the mean is 88.03644129, the median is 92.46121234, the mode is 92.03187251, and the standard deviation is 13.82117224. The frequency distribution of the initial writing skills of students of SDN 03 Sragi is shown in the following table:

Table 2. Frequency distribution of SDN 03 Sragi

Intervals		Frequency	Relative frequency	Cumulative frequency
40.61	52.21	1	0.045454545	1
52.21	63.81	1	0.045454545	2
63.81	75.41	0	0	2
75.41	87.01	2	0.090909091	4
87.01	98.61	18	0.818181818	22
Total		22	1	

The research was conducted at SDN 03 Tengeng Wetan, a public elementary school in Tengeng Wetan Village, Siwalan District, Pekalongan Regency, Central Java. There are 12 classes in this school, where each class level consists of A and B. The second class used for the research is class 2A, which consists of 20 students. Based on the analysis of 20 students from SDN 03 Tengeng Wetan as subjects, the highest score is 97.60956175, the lowest is 49.13294798; the mean is 80.55842324, the median is 83.40707421, the mode is ≈ 86.0 , and the standard deviation is 12.49444019. The frequency distribution of the initial writing skills of students of SDN 03 Tengeng Wetan is shown in the following table:

Table 3. Frequency distribution of SDN 03 Tengeng Wetan

Intervals		Frequency	Relative frequency	Cumulative frequency
49.13	58.83	1	0.05	1
58.83	68.53	2	0.1	3
68.53	78.23	3	0.15	6
78.23	87.93	8	0.4	14
87.93	97.63	6	0.3	20
Total		20	1	

The hypotheses tested are: that H0: there is no significant difference in the average scores for early writing skills among urban, suburban, and rural schools, and Ha: there is at least one school in which the average scores for beginning writing skills differ significantly.

The results of the normality test are as follows:

Table 4. Test of normality

Grade	Elementary Schools	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
	SDN 01 Pekuncen	.148	30	.092	.831	30	.000
	SDN 03 Sragi	.323	22	.000	.621	22	.000
	SDN 03 Tengeng Wetan	.169	20	.136	.915	20	.080

The normality test results present that the significance values for two of the three elementary schools are less than 0.05, namely SDN 01 Pekuncen and SDN 03 Sragi. Only SDN 03 Tengeng Wetan has a significance value greater than 0.05. Thus, the three data variables are not normally distributed. Therefore, a non-parametric statistical analysis is needed, namely the Kruskal-Wallis test.

Table 5. Kruskal-Wallis test

		Nilai
Kruskal-Wallis H		11.660
Df		2
Asymp. Sig.		.003

The bases for the Kruskal-Wallis test decision are that 1) Asymp. Sig. (P-Value) <0.05 indicates a significant difference, and 2) Asymp. Sig. (P-Value) >0.05 indicates no significant difference. The table implies that the Asymp. Sig. value is 0.003, meaning the Asymp. Sig. (P-Value) <0.05 indicates a significant difference.

Table 6. Pairwise comparisons of elementary school

Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.
SDN 03 Tengeng Wetan-SDN 01 Pekuncen	17.450	6.041	2.888	.004	.012
SDN 03 Tengeng Wetan-SDN 03 Sragi	20.223	6.446	3.128	.002	.005
SDN 01 Pekuncen-SDN 03 Sragi	-2.773	5.874	-.472	.637	1.000

Each row tests the null hypothesis that the distributions of Sample 1 and Sample 2 are the same. Asymptotic significances (2-sided tests) are displayed. The significance level is .05. a. Significance values have been adjusted by the Bonferroni correction for multiple tests.

The table presents that the ADJ. Sig. value at SDN 03 Tengeng Wetan-SDN 01 Pekuncen is 0.012, which is less than 0.05, meaning there is a significant difference. At SDN 03 Tengeng Wetan-SDN 03 Sragi, the adj. sig. value is 0.005, which is below 0.05, indicating a significant difference. At SDN 01 Pekuncen-SDN 03 Sragi, the adj. sig. value is 1, which means above 0.05, pointing to no significant difference.

In addition, only the average scores of SDN 01 Pekuncen and SDN 03 Tengeng Wetan differ, while those of the other schools are identical. Therefore, the SD variables significantly influence the difference in average scores between SDN 01 Pekuncen and SDN 3 Tengeng Wetan. Therefore, the hypothesis H_0 which states "there is no difference in initial writing skills between urban, suburban, and rural areas" is rejected, and conversely, the hypothesis H_a which states "there is a difference in initial writing skills between urban, suburban, and rural areas" is accepted.

5. Discussion

The research findings indicate differences in early writing performance across urban, suburban, and rural settings. The following discussion interprets these findings in relation to relevant literature and should not be construed as establishing direct causal relationships. The research results imply that the initial writing skills of second-grade elementary school students, as measured by the Early Grade Writing Assessment (EGWA), differ across urban, suburban, and rural areas. Descriptively, students in the urban area (SDN 01 Pekuncen) obtained the highest average score of 89.30, followed by the suburban area (SDN 03 Sragi) with an average of 88.03, and the rural area (SDN 03 Tengeng Wetan) with the lowest average of 80.55. These findings indicate variations in the level of early writing skills influenced by the characteristics of the area where students attend school (Yang et al., 2025). The observed differences in early writing performance may be related to variations in educational resources and literacy environments, as suggested by previous studies. However, these factors were not directly measured in the present study. The interpretation is, therefore, based on existing literature rather than direct empirical evidence.

The one-way ANOVA yielded a p-value of 0.025 (<0.05), indicating a significant difference in average beginning writing skills among the three regions. Thus, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted. This implies that the regional context (urban, suburban, and rural) influences students' achievement in beginning writing skills (Su et al., 2022). However, the Tukey HSD follow-up test underscored significant differences only between urban schools (SDN 01 Pekuncen) and rural schools (SDN 03 Tengeng Wetan), whereas comparisons between urban and suburban schools and between suburban and rural schools were not significant. This indicates that the suburban area exhibits transitional characteristics, with the quality of students' initial writing skills relatively close to those of both urban and rural areas (Yosefine Evigia Ayu Palupi & Luh Ayu Tirtayani, 2022).

The higher achievement in early writing skills in urban areas can be explained by the availability of better educational facilities and infrastructure, access to teaching materials and learning technologies, and a more conducive literacy environment. Students in urban areas tend to receive better literacy stimulation both at school and in their family environment, including parental support for reading and writing activities at home. These conditions support the optimal development of early writing skills (Deskripsi, 2025). Meanwhile, lower achievement in early

writing skills in rural areas is influenced by limited educational facilities, limited access to reading materials, and low levels of literacy support from the family environment. The socioeconomic characteristics of rural communities, which are largely dependent on the agricultural sector, also result in limited parental time and attention to support their children's learning at home (Ahmed et al., 2022). These factors contribute to lower initial writing skills among students than among those in urban and suburban areas.

The present study's findings align with previous studies that suggest that differences in geographic and socioeconomic contexts influence the quality of students' early literacy, including early writing skills. Regions with better access to education and literacy environments tend to produce higher literacy outcomes than regions with limited educational resources. Therefore, the research results reinforce the importance of a regionally context-based approach to early writing instruction, allowing learning strategies to be tailored to the needs and characteristics of students in each area (Nadifa & Zulvani, 2024).

This study has several limitations. First, it did not collect direct measures of school resources, socio-economic background, or home literacy practices, which limits the ability to draw causal conclusions regarding the factors underlying the observed differences. In addition, the use of a cross-sectional comparative design restricts causal inference. These limitations should be considered when interpreting the findings, and future studies are encouraged to incorporate contextual measures to strengthen explanatory power.

6. Conclusion and implications

This study examined differences in early writing skills among second-grade elementary school students across urban, suburban, and rural settings using the Early Grade Writing Assessment (EGWA). The findings indicate statistically significant differences in early writing performance across the three contexts, as evidenced by the Kruskal-Wallis test, with a small-to-moderate effect size. These results point out that students' early writing skills vary systematically across geographical settings. However, the findings should be interpreted with caution, as the sample was limited to selected elementary schools in Pekalongan and may not be generalizable to other regions or educational contexts.

From a practical perspective, the findings highlight the importance of early writing assessment with structured instruments, such as EGWA, to identify students who require targeted instructional support. Teachers in suburban and rural schools may benefit from additional scaffolding strategies, explicit instruction in basic writing conventions, and increased opportunities for guided writing practice. At the policy level, the results underscore the need for context-sensitive literacy support programs that account for disparities across geographic settings.

7. Limitation

The present study has several limitations. The sample size was relatively small and limited to selected elementary schools within a single geographical area, which restrains the generalizability of the findings. In addition, the study did not include direct measures of socio-economic status, school resources, or home literacy practices, and the EGWA instrument required contextual language adaptation. Future studies are encouraged to include broader samples and additional contextual variables to strengthen explanatory power.

Credit authorship contribution statement

First Author: Introduction, Literature Review, Method, Results, Discussion. **Second Authors:** Help Check Progress.

Declaration of competing interest

We have no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

Data Availability Statement

The data for this study are available from the corresponding author upon reasonable request. Because the data include information about human participants, they are not publicly available to protect participants' privacy.

Ethical Declaration

This study complies with the Declaration of Helsinki and that informed consent was obtained.

Declaration of AI statement

Portions of this manuscript were drafted/edited/improved using ChatGPT-4. The authors used this tool to draft an initial version of the Introduction. All AI-generated content has been thoroughly reviewed, edited, and validated by the authors, who are solely responsible for the final content.

References

- Ahmed, Q. W., Rönkä, A., & Perälä-Littunen, S. (2022). Rural Children's Perceptions of Parental Involvement in Their Education in Pakistan. *Education Sciences*, 12(5). <https://doi.org/10.3390/educsci12050323>
- Aram, D., & Yashar, R. (2023). Parents' understanding of early writing development and ways to promote it: Relations with their own children's early writing. *Frontiers in Education*, 7(January). <https://doi.org/10.3389/feduc.2022.1044907>
- Ardiansyah, Risnita, & Jailani, M. S. (2023). Teknik Pengumpulan Data Dan Instrumen Penelitian Ilmiah Pendidikan Pada Pendekatan Kualitatif dan Kuantitatif. *Jurnal IHSAN : Jurnal Pendidikan Islam*, 1(2), 1–9. <https://doi.org/10.61104/ihsan.v1i2.57>
- Artikel, I. (2022). VOX EDUKASI : Jurnal Ilmiah Ilmu Pendidikan PENINGKATAN KETERAMPILAN MENULIS PERMULAAN DENGAN. 13, 357–366. <https://doi.org/10.31932/ve.v13i2.1720>
- Ayu, R. P., Supiah, S., Rasuan, Z. B., & Rahmانيyar, A. (2022). Using Group Investigation (GI) Strategy to Improve Students' Writing Skill. *EEDJ: English Education Journal*, 2(1), 43–52. <https://doi.org/10.32923/eedj.v2i1.2523>
- Deskripsi, M. T. (2025). 1, 2 1,2. 10(September).
- Fauziah, S. A., & Gumindari, S. (2024). Improving Essay Writing Skills with the Quantum Writer Learning Method in Facing the Destructive Era 4.0. *Jurnal Pendidikan Indonesia*, 5(10), 875–889. <https://doi.org/10.59141/japendi.v5i10.5178>
- Firsa Asha Sabitha. (2022). Analisis Pengaruh Tingkat Urbanisasi Terhadap Ketersediaan Lahan Lahan Permukiman Perumahan Di Kota Surabaya. *Jurnal Lemhannas RI*, 10(1), 19–26. <https://doi.org/10.55960/jlri.v10i1.268>
- Haq, M., & Yasin, N. (2025). Qualitative, Quantitative, and Mixed Methodology Paradigms. *Journal of Practical Studies in Education*, 6(6), 15–29. <https://doi.org/10.46809/jpse.v6i6.144>
- Henanggil, M. D. F., Abdurahman, A., & Asmawati, A. (2024). Synectic Model: Unleashing Creative Expression in Students' Narrative Writing Skills. *AL-ISHLAH: Jurnal Pendidikan*, 16(3), 3820–3831.

- Istiqoma, & Anggriawan, D. (2023). Rural Behavior In Urban Area (Studi Kasus Perilaku Masyarakat di Kota Malang). *Jurnal Masyarakat Maritim*, 7(2), 83–90. <https://doi.org/10.31629/jmm.v7i2.6376>
- Li, M., Cao, Y., Dai, J., Song, J., & Liang, M. (2025). A Comprehensive Review of Urban Expansion and Its Driving Factors. *Land*, 14(8), 1–20. <https://doi.org/10.3390/land14081534>
- Ma'rifatul Khasanah, & Sigit Yulianto. (2024). Using Flashcard Media is Seen from the Result of the Skill in Writing Narrative Texts Fifth-Grade Elementary School Students. *JPI (Jurnal Pendidikan Indonesia)*, 13(3), 562–570. <https://doi.org/10.23887/jpiundiksha.v13i3.76685>
- Mawarensa, I. A. (2022). Analisis Kemampuan Menulis Permulaan Kelas 1 Sd Negeri 3 Sulahan. *Jurnal Pendidikan Deiksis*, 4(2), 5–9. <https://doi.org/10.59789/deiksis.v4i2.112>
- Mercandalli, S., Girard, P., Dione, B., & Michel, S. (2023). Assessing Rural-Urban Linkages and Their Contribution to Territorial Development: Insights from Zimbabwe's Small and Medium-Sized Cities. *Sustainability (Switzerland)*, 15(7). <https://doi.org/10.3390/su15076223>
- Muhalimah, A. P., Sulhaliza, A. P., Putri, S. M., Kartika, A. S., Ismail, B. N., & Widiyani, E. (2023). Analisis Keterampilan Menulis Terhadap Siswa Kelas Ii Sd 01 Burikan Kudus. *Jurnal Ilmiah Profesi Guru (JIPG)*, 4(2), 127–136. <https://doi.org/10.30738/jipg.vol4.no2.a15298>
- Nadhira Audrey Emilia, & Galih Kusumo. (2024). Analisis Kesalahan Keterampilan Menulis Permulaan pada Siswa Kelas II di SD Negeri Plaosan 1. *Morfologi: Jurnal Ilmu Pendidikan, Bahasa, Sastra Dan Budaya*, 2(4), 276–283. 10.61132/morfologi.v2i4.830
- Nadifa, M., & Zulvani, N. V. (2024). Indonesian Journal of Educational Development (IJED) LITERACY POLICY AS STRENGTHEN 21ST-CENTURY SKILLS EFFORT. 5(1), 16–29. <https://doi.org/10.59672/ijed.v5i1.3527>
- Nindi, F., & Azkiya, H. (2024). Enhancing students' Cursive Skills using Structural Analytic Sintetic (SAS) Method at Grade 1 Elementary School. *TOFEDU: The Future of Education Journal*, 3(2), 731–736. <https://doi.org/10.61445/tofedu.v3i2.141>
- Nugrahanta, G. A., Parmadi, E. H., Vertikasari, H. R., Dharma, U. S., & Korespondensi, P. (2024). Pelatihan Keterampilan Menulis Permulaan dengan Metode Montessori di SD Kanisius Sorowajan. 7(1), 28–35. <https://doi.org/10.26714/jsm.7.1.2024.28-35>
- Nurholishoh, Y., Efendi, P. M., & Abidin, Y. (2024). Faktor-Faktor Prediktif Yang MempengaruhiKemampuan Menulis Siswa Sekolah Dasar. *Sastra Indonesia Dan Daerah*, 14(1), 147–157. <https://doi.org/10.23969/literasi.v14i1.10249>
- Nurlaily, F., & Pranata, K. (2022). Analisis Faktor-Faktor yang Mempengaruhi Rendahnya Kemampuan Menulis Peserta Didik Kelas Redah di Sekolah Dasar. *Jurnal Paedagogy*, 9(3), 476. <https://doi.org/10.33394/jp.v9i3.5297>
- Ondeng, S., & Rahman, U. (2026). Journal of Qualitative and Quantitative Research Populasi dan Sampel sebagai Dasar Metodologis dalam Penelitian Pendidikan. 3(1), 35–50. <https://doi.org/10.61166/interdisiplin.v3i1.145>
- Prastyo, E., Wisadirana, D., Rozuli, I., & Hakim, L. (2024). SOCIAL CAPITAL ' S IMPACT ON INDONESIA ' S URBAN AND RURAL AREAS a Redy. 1–28. <https://doi.org/10.55908/sdgs.v12i1.2714>
- Rachmatini, D., Studi, P., Guru, P., Ibtidaiyah, M., Ilmu, F., Dan, T., Syarif, U. I. N., & Jakarta, H. (2022). Keterampilan Menulis Permulaan Siswa Kelas I.
- Sahana, M., Ravetz, J., Patel, P. P., Dadashpoor, H., & Follmann, A. (2023). Where Is the Peri-Urban? A Systematic Review of Peri-Urban Research and Approaches for Its Identification and Demarcation Worldwide. *Remote Sensing*, 15(5). <https://doi.org/10.3390/rs15051316>

- Sherlina Aulia, E. S. (2025). Peningkatan keterampilan membaca lancar menggunakan model. *Jurnal Ilmiah Pendidikan Dasar*, 10. <https://doi.org/10.23969/jp.v10i02.25202>
- Su, M., Fan, Y., Wu, J., Qiao, B., & Zhou, W. (2022). The influence of the literacy environment on children's writing development in Chinese. *Frontiers in Psychology*, 13(October). <https://doi.org/10.3389/fpsyg.2022.1010471>
- Susilo, S., Asutik, M. A., & Rizal, A. F. (2024). Inovasi Pembelajaran di PAUD untuk Mendukung Perkembangan Bahasa dan Literasi Anak. *Journal of Education and Pedagogy*, 1(1), 19–24. <https://doi.org/10.62354/jep.v1i1.12>
- Syahriyah, U. U. (2023). Peran Guru Pendidikan Agama Islam (PAI) Dalam Pengembangan Metode Dan Evaluasi PAI. *Urwatul Wutsqo: Jurnal Studi Kependidikan Dan Keislaman*, 12(2), 291–306. <https://doi.org/10.54437/urwatulwutsqo.v12i2.1059>
- Wageman, R., Hackman, J. R., & Lehman, E. (2005). Development of an Instrument. 41(4), 1–25. <https://unesdoc.unesco.org/ark:/48223/pf0000266277.locale=en>
- Yang, J., Luo, Q., Li, Y., Huang, C., Xu, Y., Ou, K., & Lu, S. (2025). Unveiling the urban-rural discrepancy: A comprehensive analysis of reading and writing development among Chinese elementary school students. *Learning and Instruction*, 98(April). <https://doi.org/10.1016/j.learninstruc.2025.102145>
- Yosefine Evigia Ayu Palupi, & Luh Ayu Tirtayani. (2022). Coping Strategy Dalam Mendampingi Anak Usia Dini Belajar Dari Rumah. *Jurnal Pendidikan Anak Usia Dini Undiksha*, 10(2), 274–282. <https://doi.org/10.23887/paud.v10i2.49389>