Student's Literacy Competence: The Use of Guided Reading Model and the Sociocultural Perspective

Sri Dewi Nirmala

Master of Elementary Education, Universitas Terbuka, Tangerang Selatan, Indonesia

DOI: https://doi.org/10.47772/IJRISS.2026.100700017

Received: 08 July 2026; Accepted: 13 July 2026; Published: 22 July 2026

ABSTRACT

This study discusses literacy competence (LC) in elementary schools. Although LC is important, it does not meet adequate capability standards. This study aims to analyze LC through the Guided Reading (GR) Model and sociocultural factors. The research method uses Mixed Methods with an explanatory sequential design. The stages carried out are quasi-experimental, followed by descriptive analysis. This research was conducted on grade IV students in six elementary schools implementing the School Literacy Movement (GLS). The number of students is 200, consisting of 94 male students and 106 female students. The research instrument consists of tests, observations, questionnaires, and in-depth interviews with students, parents, and teachers. Data analysis using the Mann-Whitney nonparametric test. LC categories include literacy level, competence, and comprehension level. Research results: (1) the GR model is able to increase LC from low to medium levels; (2) the level of literacy comprehension increases from the literal factual category to the interpretive category; and (3) socio-cultural factors that affect LC, among others: book reading facilities, parental guidance, and the use of technology, which negatively affect LC. However, the findings do not support the assumption that technology use, by itself, increases LC; instead, its effect appears to depend on the presence of parental guidance and supervision. Further research, particularly using longitudinal or experimental designs, is needed to examine the impact of technology and mentoring patterns on LC development among elementary school students.

Keyword: School Literacy Movement, Literacy Skills, Model Guided Reading, Sociocultural Factors.

INTRODUCTION

Indonesia's current literacy competence (LC) is a matter of serious concern, as reflected in the persistent gap between books and Indonesian society [1]. International literacy surveys likewise place Indonesia in the low-achieving category [2]. Low LC has negative social and economic consequences for individuals, since LC is closely linked to improved life outcomes [3]. Moreover, when a nine-year-old child has not yet acquired basic reading skills, subsequent academic achievement becomes substantially more difficult [4].

Literacy, in general, is a set of knowledge and skills related to the ability to read, characterized by the capacity to understand the content of a text, learn from what is read, and express ideas in written form [5]. Reading itself is a complex, multifactorial, and dynamic skill [6], one that matters not only for learning but also for success in everyday life [7]. This complexity arises from a combination of interrelated sub-skills, and students' reading ability in the early grades forms the basis for their reading ability at later stages [8]. The basic skills that low-grade students acquire at the learning-to-read stage will, in turn, shape the skills they need to complete tasks at the reading-to-learn stage in higher grades [9]. A lack of mastery in science and technology can often be traced back to weak early reading and writing skills [10].

Teachers' ability to select an appropriate reading model is a key factor in improving LC. Teacher involvement in LC development lies in how well they facilitate student learning and motivate students to participate actively, thereby fostering stronger LC [11]. Sound learning principles support LC development by giving students opportunities to read, write, listen, and speak in an integrated and contextual manner [12]. For this reason, it is essential for teachers to choose an appropriate learning model to develop LC, and one model well suited to this purpose is the Guided Reading (GR) Model.

Research [13] on literacy and reading skills concludes that teachers need a GR learning model to develop students' literacy skills in line with Vygotsky's theory of social development. In addition to the choice of learning model, sociocultural factors involving three components, namely parents, teachers, and the learning process, also influence LC improvement. Research [14] further states that these three components must work together in support of the learning outcomes teachers aim to achieve.

Low reading interest, which affects LC, cannot be separated from the sociocultural factors that shape the learning process in society [15]. Research [10] on the implementation of literacy-culture management in Indonesian primary schools found that planning for organizing a literacy culture had been carried out well, supported by school literacy teams responsible for managing habituation, development, and instruction, and reinforced by regular academic supervision. The dominant sociocultural factors supporting students' LC include their involvement in preschool-period learning within the family, the availability of digital-literacy learning facilities, and the learning patterns established at school. LC development is shaped by students' preschool activities, which are linked to their reading and writing skills [16], and preschool-level LC is, in turn, linked to reading achievement in childhood and adolescence [17]. Student interaction and development are closely tied to the quality of the preschool learning process, and interactive engagement within the family helps facilitate positive development [18].

The pattern of classroom interaction created through the use of learning models affects students' LC, as do patterns of interaction, communication, and parental guidance, both of which matter as sociocultural factors in the era of Society 5.0. This era represents a new phase of society that places humans at the center of its civilization [19], aiming to bring digital technology and human, individual, and social life into closer, more interconnected alignment [20]. The relationship between humans and technology cannot be separated from the roles that parents and teachers both play in improving LC.

Key contributors to LC include parents, through learning patterns and preschool learning facilities; teachers, through the learning process; and the government, as the policymaker responsible for providing alternative solutions to improve LC [21]. The persistently low LC of Indonesian elementary school students has informed education policy, leading to the launch of the School Literacy Movement (GLS), a comprehensive effort to turn schools into learning organizations. GLS also seeks to involve all parties in the school environment in developing a literacy culture alongside the growth of character and ethics within the school ecosystem [54]. Building this literacy culture requires digital-based infrastructure [22]; however, digital-technology-based literacy support still carries drawbacks, particularly from a sociocultural standpoint in the Era of Society 5.0, which is saturated with technology and information [23].

Research by Morrison et al. [10] found that LC comprises several dimensions shaped by strong basic abilities in both oral form (lexical, phonological, metalinguistic, and language skills) and written form (decoding, comprehension, and writing skills). These abilities are shaped by parents and teachers, who create and develop LC both at home and at school, with family being a major factor in students' literacy development [24]. Similarly, [25] found a significant relationship between socioeconomic status, home literacy environment, and social skills.

Consistent with these findings, a preliminary study of LC at GLS-implementing schools in Sukabumi Regency found: (1) reading ability remained low, with an average Effective Reading Speed (KEM) of 104 words per minute; (2) only 45% of students could answer comprehension questions adequately; (3) LC remained at the factual-literal level; (4) reading culture and interest were still low; and (5) literacy development and infrastructure remained inadequate.

This study distinguishes itself from previous research by focusing on the learning process in GLS-implementing schools together with the sociocultural factors that affect student literacy, namely home reading-book facilities, parental guidance during the preschool and school periods, and access to and use of mobile phones as factors supporting LC development. Previous studies have found that some GLS-implementing schools have not met literacy standards due to limited facilities. In addition, parental role and guidance, together with students' early LC, contribute substantially to language development and to students' ability to keep up with learning during their school years (Meng, 2021; Zhang et al., 2020; Lucas et al., [26] [27] Brink and Nel, 2019; [28] [29] [30]). These sociocultural factors matter a great deal, particularly given the positive impact of early preschool literacy

[31]. This study therefore aims to analyze elementary school students' LC through the GR Model, alongside the sociocultural factors that causally shape LC.

Theoretical Framework

A. Literacy Competence

Literacy competence (LC) is a foundational ability that elementary school students must acquire, aimed at strengthening learning objectives so that basic competencies are met [53]. LC is closely tied to reading ability, since reading involves a series of complex processes that draw on multiple underlying skills [50]. Literacy can also be defined as a value that society holds and/or as an opportunity for individuals to understand and use meaningful forms of written language [51]. In terms of learning, literacy is the ability to access, understand, and use texts (whether single or multimodal) intelligently through a range of activities, including reading, viewing, listening, writing, and speaking [55].

Literacy is a prerequisite for students to develop the four life skills (4Cs), which in turn foster the good character called for in the Pancasila Student Profile [56]. LC is an important language skill that influences student development; language skills, in general, are among the key mental capacities that distinguish humans from other creatures [52]. Literacy skills are not limited to the ability to read without grasping a text's content or meaning; they also involve reasoning at a high cognitive level (higher-order thinking skills), as today's demands require. In general, literacy skills include: (1) finding information (accessing and retrieving); (2) interpreting and integrating; and (3) evaluating and reflecting.

B. Guided Reading Model

Guided Reading (GR) is a valuable learning model because its stages allow teachers to accommodate students' diverse abilities; it has also been shown to improve students' literacy skills [60]. In general, the GR stage comprises the following key components [57].

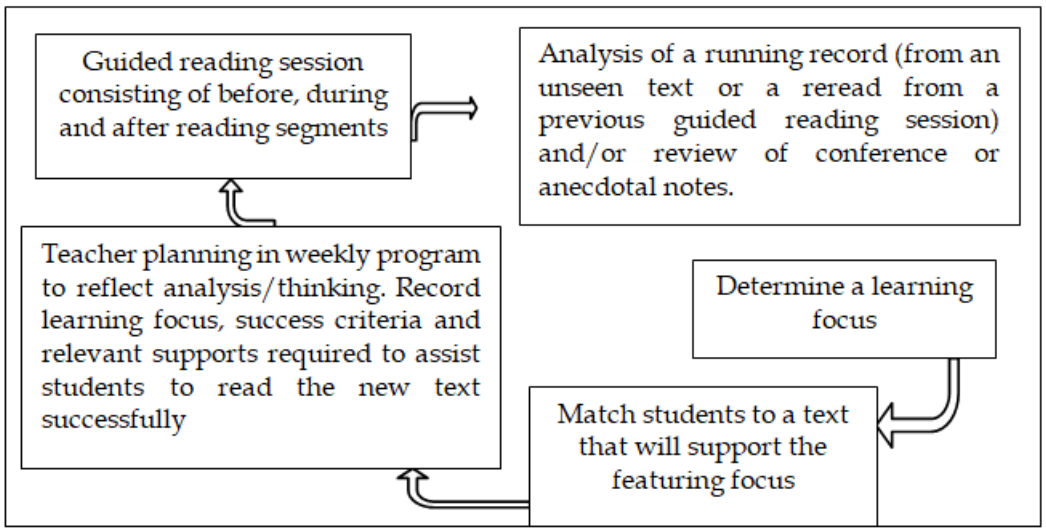

Figure 1. Guided Reading Model Component

In line with this, Ford and Opitz (2016) [61] outline several characteristics of the GR approach: (1) GR begins with the belief that all children have the capacity to become literate; (2) all children should be taught by a skilled teacher during the GR stages; (3) GR helps children internalize specific strategies they can use independently to read a text successfully; (4) during the GR stage, teachers should engage children in discussing the texts they are reading; (5) GR helps students develop metacognition — knowing what they know, and understanding the why and how of reading; (6) children need to experience genuine enjoyment as a result of their reading experience; and (7) three specific elements characterize a successful GR lesson, corresponding to its three stages (before, during, and after reading).

C. Sociocultural Factor

Sociocultural factors play an important role in education. A student's abilities are shaped by several factors that accompany their development, factors a child encounters through experiences in the family, school, and community. The community, in particular, contributes substantially to literacy development as a sociocultural factor. This is consistent with Bronfenbrenner's Social Ecology theory [18], which holds that a person's development is shaped by several nested systems: (1) the microsystem, the contextual influences closest to the child, such as family, school, healthcare providers, or places of worship; (2) the mesosystem, the connections between the settings in which the child actively participates; (3) the exosystem, referring to the relationship between two or more settings in which the child is not always directly involved but which nonetheless exert an influence; and (4) the macrosystem, referring to the broader social atmosphere or cultural context. The factors most relevant to this study are the closeness and communication between students and their families during tutoring, in both the preschool and school periods, together with the learning conditions created within the exosystem of the school. Taken together, these factors relate to this study both specifically, through the learning process using the GR Model, and more broadly, through the background sociocultural factors tied to students' social conditions.

METHOD

The study used a *mixed-methods approach with* a Sequential Explanatory *design*, through the collection and analysis of quantitative and qualitative data in two phases of activity, starting with quantitative first, followed by qualitative stages [58]. The quantitative research stage uses a quasi-experimental design, and the qualitative stage uses descriptive analysis. The research was conducted in grade IV at six GLS-implementing elementary schools in Sukabumi Regency, West Java, representing the North, Central, and South Sukabumi regions. The total number of students is 200 people consisting of 94 male students and 106 female students. The research was conducted using test instruments, observations, questionnaires, and in-depth interviews with students, parents, and teachers.

The research instrument used is in the form of LC test instruments from [32], and modified based on the suitability of basic competencies in elementary schools, according to Table 1.

Table 1 Lc Indicator

Level	**Comprehension Competency**	**Level of Understanding**
Low	a. Mastering vocabulary/phrases	Factual Literal
	b. Identify the settings (place, time, situation) of the text	Factual Literal
	c. Identify factual information from text	Factual Literal
Middle	a. Find the main idea	Interpretive
	b. Define supporting ideas	Interpretive
	c. Determine the order of text information	Interpretive
	d. Determining causal relationships	Interpretive
High	a. Making conclusions of the text in one's own language	Interpretive
	b. Determine information relevant to the text	Interpretive
	c. Finding the implicit meaning of text	Interpretive

	d. Assess the clarity/completeness of text	Interpretive
	e. Respond critically to the solutions provided by the author	Interpretive
Continued	a. Finding the application/relevance of text ideas in life	Applicative
	b. Assess the relevance of text content	Applicative
	c. Plan the actualization of values obtained from the text	Applicative

Indicators of literacy ability are reviewed from the level, comprehension competence, and level of literacy understanding. The literacy ability level consists of low, middle, high, and continued levels. Literacy comprehension competence is an indicator of the level of literacy ability. While the level of understanding consists of literal, interpretive, and applicative factuals. Data analysis used the Mann Whitney nonparametric difference test, because the data did not distribute normally after being tested through the Kolmogorov-Smirnov Test or Liliefors Test. Test the difference if *p-value (sig.)* $\leq \alpha_{= 0.05}$ then it is said that there is a difference in LC, and if the test is different *p-value (sig.)* $> \alpha_{= 0.05}$ then it is said that there is no difference in LC.

The LC test instrument adapted from [32] was reviewed for content validity by expert judgment prior to use, and its reliability was estimated using Cronbach's alpha. Schools and classes were selected purposively from GLS-implementing elementary schools representing the North, Central, and South regions of Sukabumi Regency, and all fourth-grade students in the selected classes were invited to participate; participation was voluntary and based on informed consent obtained from parents/guardians, with assent from the students themselves, and the study protocol followed the ethical research standards of the researcher's institution. Although the Mann-Whitney test indicated statistically significant improvement, effect size and 95% confidence intervals were not computed in the present analysis; this is acknowledged as a limitation of the study, and future research is encouraged to report these estimates alongside p-values to better indicate the magnitude of the GR Model's impact.

DISCUSSION OF THE FINDINGS

A. Findings

Before conducting an experiment on the learning process using the LC Model, first conduct a pretest to measure students' Early Literacy Ability (ELC) which is divided into three categories, namely high, medium, and low LC. Similarly, after carrying out the learning process using the model, a posttest was carried out to measure the final results of students' literacy abilities. The pre-posttest results are shown in Table 2.

Table 2 Gr Model Pretest–Postest Improvement

Region/ Hasil Pretest, *Posttest*	Category				Literacy Competence						
					Level				Literasi		
	L	E	G	VG	L	M	H	C	FL	I	A
North											
Pretest	15	17	9	-	2,9	2,1	2,1	2,0	2,9	2,1	2,0
Posttest	1	21	15	3	3,1	3	2,9	2,7	3,1	2,9	2,7
Center											
Pretest	18	13	8	-	3,1	2,3	2,2	2,1	3,1	2,2	2,1

Posttest	2	21	14	3	3,3	2,85	2,8	2,6	3,3	2,8	2,6
South											
Pretest	21	15	4	-	3,0	1,3	1,8	1,3	3,0	1,3	1,3
Posttest	2	19	18	1	3,25	2,8	2,7	2,6	3,25	2,75	2,6
Presented Increased	**-4,1**	**13,3**	**2,16**	**5,8**	**16,25**	**72,5**	**57,5**	**62,5**	**18,7**	**56,2**	**62,5**

Description:

Category:	**Level:**	**Literacy Understanding:**
L= Less	L=low	FL=Factual Literal
E= Enough	M=Middle	I= Interpretive
G=Good	H=High	A=Applicative
VG = Very Good	C=Continued	

Table 2 displays the increase in students' LC by categories of less, sufficient, good, and excellent. Each category experienced an increase in posttest compared to pretest. From all categories, in general, there was an increase in ability by 16.25%. The literacy level consists of intermediate, high, and advanced abilities, each of which has increased: the intermediate level increased by 72.5%, the high level by 57.5%, and the advanced level increased by 62.5%. Literacy understanding consists of literal, inferential, and applicative factual understanding, increasing respectively by 18.7%, 56.2%, and 62.5%.

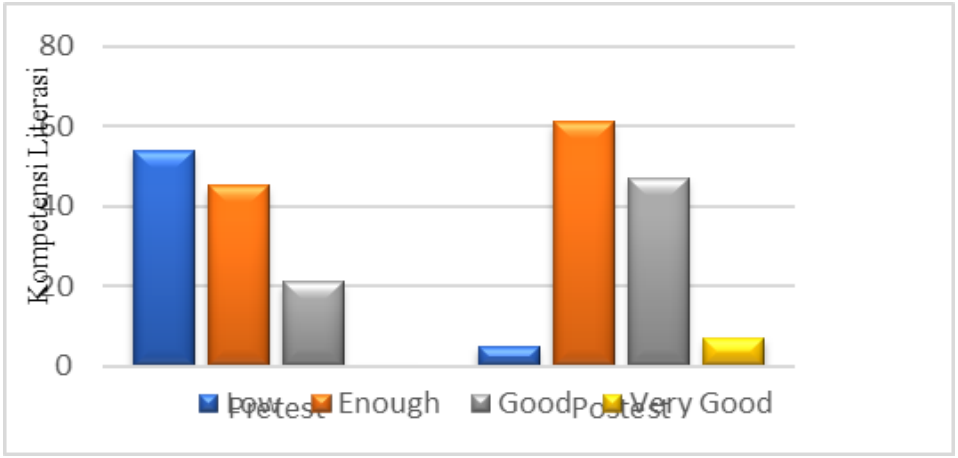

Figure 2 LC Category Upgrade Graph

Figure 2 shows the LC of students pretest and posttest results after going through the GR model has increased. The results of the pretest, students who are in the less category are 54 people, while the posttest results have increased, namely there are only 5 people who are in the less category. In the sufficient category, the pretest results showed that there were 45 students, while the posttest results increased to 61 people. The pretest results put the students who were in the good category, totaling 21 people. While the posttest results increased to reach 47 people. In the very good category, the pretest results showed that none of the students occupied this category, while after the posttest through the GR model, there were 7 students who occupied the very good category.

In addition to the increase in the LC category in Figure 1, the use of the GR model also increased in the level and level of literacy understanding, as shown in Figure 3.

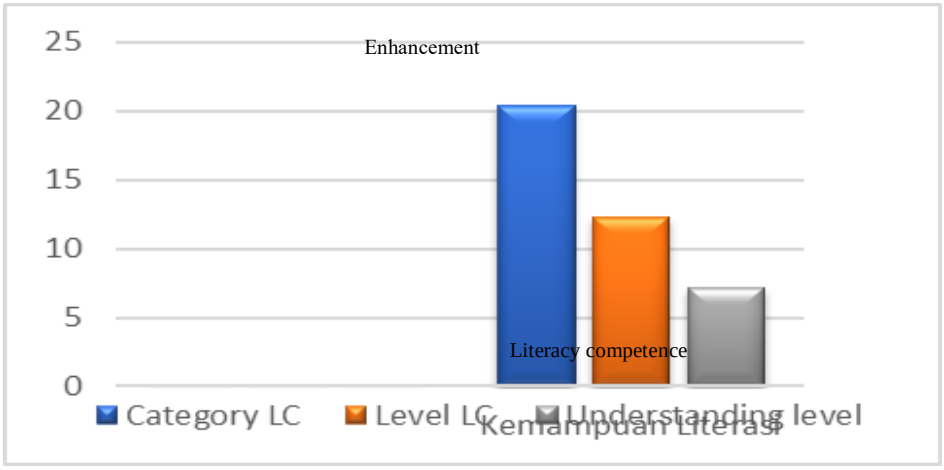

Figure 3 GR Model Upgrade Graph

Based on data from questionnaires, interviews, and observations, on students, parents, and teachers, results were found that are the sociocultural factors behind student LCs in GLS implementing schools [2], as follows.

1. Home reading book facilities, questionnaire results and interviews regarding the availability of reading books at home are shown in Table 3.

Table 3 Facilities/Collection Of Reading Books

LC	**Read books (%)**		**Text books (%)**	
	Yes	No	Yes	No
High	48	52	67	33
Enough Low	3	97	42	58

Table 3 groups the book facilities available at home. The data proves that students in the high LC category have a fairly complete collection of books at home. Conversely, students who are in the low LC category, still lack a collection of reading books, both general reading books and textbooks.

2. Communication and guidance to children at an early age/preschool period. The results of questionnaires and interviews with parents and students regarding early childhood guidance were obtained in Table 4.

Table 4 Communication and Guidance in Early Childhood

LC	**Communication (%)**		**Early Childhood (%)**	
	Yes	No	Yes	No
High	78	22	64	36
Enough Low	52	48	18	82

Table 4. displays the percentage of communication between parents and children, and guidance in early/preschool based on high, low, and medium LC. In high LC the frequency of communication between

parents and children is 78%, parental guidance to children is 64% and in medium and low LC parental guidance is very less at only 18%.

3. Communication and tutoring during school years. The results of questionnaires and interviews with parents and students regarding communication and tutoring during school years are shown in Table 5.

Table 5 Communication and Guidance During School Years

LC	**Learning Facilities (%)**		**Tutoring (%)**		**Gidance Watch TV (%)**	
	Enough	Low	Yes	No	Yes	No
High	74	26	83	17	87	13
Enough Low	43	67	8	92	25	75

Table 5 shows data on communication and parental guidance during school years. Data shows that students in the high LC group have a high percentage of learning facilities, tutoring from parents, and are accompanied while watching TV.

4. HP/Gadget, Computer, and Television Facilities. The results of questionnaires and interviews with parents and students regarding the ownership of cellphones, TVs, and computers are found in Table 6.

Table 6 Mobile / Gadgets, Computers, And Television

LC	**HP /Gadget (%)**		**Computer (%)**		**Television %**	
	Yes	**Use**	**Yes**	**Use**	**Yes**	**Use**
High	83	WhatsApp, FB, games, YouTube	7	To work on a task	100	For Telenovelas and cartoons
Enough	77		-	-		
Low	72		-	-		

Further search about cellphone ownership, of the 77.3% of students who own cellphones, all of them are multifunctional android phones with a price range above 2 million rupiah. The results of interviews and questionnaires regarding the use of cellphones, students' answers are widely used for Whatsapp, Facebook, games, and YouTube. Use YouTube to watch songs. The use of games is very diverse, including: garena free fayer (war), dream league soccer 2018 (ball), salendrina (ghost), ghost evolution, mobile leggend (battle), angry bird, spiner day (war), helix jump, pokemon go, and tiktok. Of the several types of games, the most liked are games whose content is about war and battles containing violence. The use of cellphones based on interview results, generally used after school, afternoon, and evening.

Discussion

The development of LC in schools cannot be separated from a range of underlying factors. One of the most important is teacher competence in designing instruction that comprehensively builds students' knowledge, experience, and attitudes toward LC [33]. The GR Model creates a learning process intentionally designed to align what and how students learn to read, with teachers guiding students through the reading process in structured stages. Teachers build learning environments that ideally encourage dialogue and response to texts and reading experiences, supporting students in applying these forms independently once they read on their own [13]. Naidoo et al. (2014) [62] similarly found that teachers who develop literacy effectively possess broad knowledge and make full use of effective learning strategies and models. This underscores the importance of the

reading strategies teachers use in the classroom, since their successful application can substantially develop students' literacy skills.

Grade IV students' LC in the GLS-implementing schools in Sukabumi Regency improved in the following ways after using the GR Model: (1) students' LC moved from a low category to a good category on test performance; (2) students' LC level shifted from low to middle, with some students reaching the high level; and (3) students' level of literacy understanding moved to the middle and high levels, reflecting an inferential/interpretive level of comprehension. At the middle level, this means students could find the main idea, identify supporting ideas, determine the sequence of information in a text, and identify causal relationships. At the high level, students could draw conclusions from a text in their own words, identify information relevant to the text, uncover its implicit meaning, assess its clarity and completeness, and respond critically to the solutions the author proposed.

Using the GR Model in GLS-implementing schools can improve students' LC. Based on the study's findings, this model offers several advantages: (1) it increases student engagement in learning by introducing new vocabulary, analyzing difficult concepts, and improving reading comprehension [7]; (2) it strengthens teachers' role in guiding and motivating students, individually and in groups, to build confidence as readers and to engage fully in reading activities [11]; (3) it develops students' metacognition through discussion activities connected to their everyday lives; (4) it builds students' knowledge through predicting, formulating questions, and summarizing text content; (5) it develops students' attitudes, particularly social attitudes, through shared reading; and (6) it builds students' skills through reading aloud, skimming, and shared reading, as well as the skill of summarizing what they read.

Implementing reading instruction through the GR Model maximizes teachers' role in guiding students, leaving students more enthusiastic and motivated to engage with the learning process. Its three stages, before reading, during reading, and after reading, each contribute to improving LC. In doing so, the GR Model shifts learning that was originally results-oriented toward a more process-focused approach [14]. The GR Model also emphasizes guidance and communication between teachers and students, aligning the learning process with the Society 5.0 era, which positions humans as subjects rather than as mere supporting tools or objects.

Based on data from questionnaires, interviews, and observations, on students, parents, and teachers, results were found regarding sociocultural factors that affect LC in Sukabumi Regency, especially in GLS implementing schools, as follows.

1. Reading-book facilities. The availability of reading books in the home environment greatly benefits students' LC, yet the findings show a shortage of such facilities in students' homes. The home environment contributes substantially to children's literacy development; the characteristics of a literate home environment include the availability of reading materials, parents' own literacy level, and parental involvement and habits, especially reading habits [59]. Accordingly, the availability of reading books at home has a significant effect on students' LC: adequate book facilities can encourage LC development, expand children's vocabulary, and build insight and critical thinking from an early age. It is therefore important for parents to provide rich experiences, particularly by cultivating reading habits through adequate book facilities [25]; [10]; [34]. By providing reading books for their children, parents can also help shape children's learning patterns in preparation for school [35].

2. Communication and guidance for children at an early age/preschool period. Students' later development at school is heavily influenced by the communication and guidance parents and families provide during the preschool period. The survey results show that parent/family communication with children during preschool remains very limited, reaching fewer than 80% of respondents. Parents need to actively engage in reading activities with their children to support language and literacy development [36]. Students who regularly read storybooks with their parents tend to have stronger reading skills when they enter elementary school and show greater gains in language and literacy development [37] [26]. Parental guidance during preschool, especially in learning to read, also provides valuable experiences that add to children's intrinsic motivation once they reach school [38]; [8]. A home environment rich in tutoring experiences provides language stimulation and verbal interaction that improve children's language development [39]; [34], and builds language skills that serve as capital for further learning [40]; [34]. Limited literacy development during preschool, when combined with limited parental guidance, will affect students' reading and writing skills in the early grades of primary school

[5]. [41] likewise found that parental guidance during the preschool period contributed 86% toward improving the literacy ability of school-age students. These findings on the importance of parental guidance at home stand in contrast to the reality in the six GLS-implementing schools studied here, where students still show a marked lack of communication and family guidance during preschool.

3. Communication and tutoring during the school years. Beyond guidance and communication during preschool, parents continue to contribute to their children's literacy development throughout their school years, which closely shapes children's knowledge, attitudes, and skills. The survey results show this support is still very limited, particularly among students with medium and low LC; among students with high LC, 83% receive guidance and attention from their parents regarding their learning at school. This link between parental guidance and stronger student outcomes is consistent with [42], who found that students receiving parental guidance during learning show significantly greater gains in ability. [43] likewise found that students who do not receive parental guidance at home are at greater risk of literacy learning difficulties. This is in line with [44], who found that an adequate home environment for guiding children's learning is highly beneficial for sociocultural literacy development, since parents are a key factor in educational success, particularly during the transition from preschool to elementary school [18].

4. Technology facilities (mobile phones/gadgets, computers, and televisions). Rapid technological development undeniably has a strong influence on daily life, including in education. Hemmerechts et al. (2016) [63] found that technology, mobile phones, and gadgets can contribute positively to students' literacy development, provided they are used to build students' knowledge, particularly in science-related areas. In recent decades, technology has played an important role both in school learning and in society more broadly [45], and its use can support the development of language and literacy skills [46]. Other findings likewise show that gadgets and mobile phones can be effective literacy tools, since they can make engaging with a wide range of knowledge more appealing [16].

Interview and questionnaire results on television use show that 100% of students across the three regions of Sukabumi Regency have a television at home, which students reported using mainly to watch soap operas and cartoons. Computer ownership, by contrast, reached only 7% across the three regions, concentrated among students in the high-LC group; these students generally used computers to help with homework assigned by their teachers. Increasingly sophisticated technology has also taken a toll on Indonesia's literacy culture: students tend to prefer playing with mobile phones through various social media platforms over reading, which they find comparatively unappealing. Similarly, if computer and television facilities are not used wisely, their impact on students' literacy development becomes even more concerning.

This study yields several important findings regarding LC, the use of the GR Model, and the sociocultural factors relevant to conditions in the Society 5.0 era. With respect to LC, Grade IV students in the six GLS-implementing schools showed improvement after using the GR Model, which was able to raise LC across categories, levels, and depths of literacy understanding. The use of the GR Model aligns with the demands of contemporary learning, namely student-centered instruction oriented toward process rather than results alone. Through the GR Model, teacher guidance is maximized by focusing on three stages of activity: before reading, during reading, and after reading, developed so that the learning responsibilities of teachers and schools can be carried out effectively.

Beyond the use of the GR Model, this study also produced findings related to the sociocultural factors underlying students' literacy abilities, factors that emerged as dominant drivers of LC. The availability of reading books at home, parental guidance during the preschool and school periods, and the use of digital technology all emerged as sociocultural factors linked to low LC. Together with the school learning process and teacher guidance, students' own learning patterns form three interrelated components tied to LC. How well these three components work together matters greatly in the Society 5.0 era, given the way these roles must be balanced against one another, with humans regarded as the central concern in terms of needs, rewards, and demands for success.

Another finding that should concern both teachers and parents is the rapid and unstoppable flow of technology. Based on this study's findings, elementary school students generally use mobile phones/gadgets, computers, and televisions in their daily communication, but not always wisely. The need for technology in daily learning and

communication cannot be denied, especially now, in the transitional period following the impact of Covid-19 [47]. While this reflects a genuine push to improve human capability, its use must be tailored to support students' learning skills so that it becomes more effective and contributes to improving the quality of education [48]. Balancing the use of digital technology, as part of Industry 4.0, must go hand in hand with the capacity for social interaction called for in Society 5.0, an era in which harmony between technology and human resources is essential to developing the whole person.

Based on this study's results, the use of mobile phones/gadgets, televisions, and computers has not been shown to be effective in developing students' literacy. This contrasts with research by Hemmerechts et al. (2016) [63] and Ruecker (2022) [45], and Li et al. (2021) [46], which concluded that the use of technology (mobile phones/gadgets) can improve students' language skills and knowledge. These contrasting findings can be reconciled if technology use is appropriate and well-integrated into supporting student learning; if its use falls short of the intended learning purpose, however, technology becomes a problem and can even have a negative impact on students. This is reinforced by research [16] showing that mobile phone/smartphone use without parental guidance can lead to addiction and emotional dysregulation in children.

Parental guidance and support are needed in the use of technology so that it is used appropriately and effectively supports students' literacy, knowledge, and skills, especially LC. In contrast, the present findings suggest a less favorable pattern: technology in this sample was used mainly not for learning but for social media purposes and content that does not support learning, a pattern that appears to coincide with a decline in student learning outcomes. The time students spend, particularly at home, tends to go toward social media rather than toward developing knowledge, skills, and specifically LC. The key implication of this finding is that technology use among elementary school students must be managed wisely, and that support and guidance from both parents and teachers cannot be dispensed with. Without such guidance, the impact of technology use tends to be negative, even though its use has, at this point, become a necessity.

Limitations of The Study

This study has several limitations that should be considered when interpreting its findings. First, the sample was drawn from six GLS-implementing elementary schools in Sukabumi Regency only, so the results may not generalize to schools with different regional, socioeconomic, or infrastructural conditions. Second, participating schools and students were not selected through random sampling, which raises the possibility of sampling bias; students and parents willing to take part may differ systematically from those who were not. Third, because the quasi-experimental design did not include a control group, improvements observed between pretest and posttest cannot be attributed to the GR Model alone; maturation, regular classroom instruction, and other concurrent school activities may also have contributed to the change. Fourth, the sociocultural factors examined (home reading facilities, parental guidance, and technology use) were assessed through self-report questionnaires and interviews, which are subject to social-desirability bias and may not fully capture actual practices at home. Finally, potential confounding variables, such as parental education level and household socioeconomic status, were not statistically controlled for, so the associations reported between sociocultural factors and LC should be interpreted as correlational rather than causal.

CONCLUDING REMARKS

LC is an ability that must be continuously developed, particularly in elementary schools, and using an appropriate reading learning model is central to that process. One such model is the GR Model, and this study's results show that using it enabled elementary school students in six GLS-implementing schools to improve their LC across category, level, and depth of literacy understanding. The sociocultural factors underlying students' LC include the completeness of reading-book facilities at home, parental guidance and communication during both the preschool and school periods, and the use of technology in the form of mobile phones/gadgets, televisions, and computers. Taken together, these findings underscore the importance of guidance and communication: students should not be left to learn on their own, but accompanied through good communication, in keeping with the principle of humanizing human beings. An important finding of this study is that inappropriate technology use has a negative effect on literacy development, and that a lack of guidance and communication between students and parents can hinder literacy improvement. These results depart from some previous findings suggesting that

technology use, on its own, increases student literacy. This point deserves emphasis: the issue is not that technology itself is harmful, but that technology used without support, direction, and guidance from teachers and parents alike tends to have negative effects. Further research is needed on the effects of technology use in learning, as well as on other sociocultural factors not examined in this study.

REFERENCES

1. R. Setiadi, "Sociocultural Intervention Strategy for Primary Literacy Teaching," vol. 424, no. Icollite 2019, pp. 369–372, 2020, doi: 10.2991/assehr.k.200325.113.
2. S. D. Nirmala, "Problematika Rendahnya Kemampuan Literasi Siswa Di Sekolah Dasar Problematics of Students' Low Literacy Ability in Elementary School Article History Abstract," vol. 11, no. 2, pp. 393–402, 2022.
3. D. Addae, "Adults who learn: Evaluating the social impact of an adult literacy project in rural South Africa," Soc. Sci. Humanit. Open, vol. 3, no. 1, p. 100115, 2021, doi: 10.1016/j.ssaho.2021.100115.
4. A. Çakıroğlu, "The language acquisition approaches and the development of literacy skills in children," Int. Electron. J. Elem. Educ., vol. 11, no. 2, pp. 201–206, 2018, doi: 10.26822/iejee.2019248600.
5. F. J. Morrison, R. A. Marks, A. D. Woods, and C. M. Connor, "Literacy," Encycl. Infant Early Child. Dev., vol. 2, no. March 2019, pp. 260–272, 2020, doi: 10.1016/B978-0-12-809324-5.05837-5.
6. D. Safi, P. Lefebvre, and M. Nader, Literacy acquisition: Reading development, 1st ed., vol. 173. Elsevier B.V., 2020. doi: 10.1016/B978-0-444-64150-2.00017-4.
7. A. P. Gutierrez de Blume, A. Katz, and J. Bass, "Impact of literacy across content on middle school students' reading comprehension in a rural context," J. Res. Read., vol. 44, no. 2, pp. 284–300, 2021, doi: 10.1111/1467-9817.12334.
8. J. D. Nichols, I. hee Kim, and G. W. Nichols, "The effect of parent and community volunteerism on early literacy development," Educ. Rev., vol. 72, no. 4, pp. 411–426, 2020, doi: 10.1080/00131911.2018.1530638.
9. R. T. Pittman, S. Zhang, E. Binks-Cantrell, A. Hudson, and R. M. Joshi, "Teachers' knowledge about language constructs related to literacy skills and student achievement in low socio-economic status schools," Dyslexia, vol. 26, no. 2, pp. 200–219, 2020, doi: 10.1002/dys.1628.
10. S. Marmoah and J. I. S. Poerwanti, Suharno, "Literacy culture management of elementary school in Indonesia," Heliyon, vol. 8, no. 4, p. e09315, 2022, doi: 10.1016/j.heliyon.2022.e09315.
11. A. T. Barber and S. L. Klauda, "How Reading Motivation and Engagement Enable Reading Achievement: Policy Implications," Policy Insights from Behav. Brain Sci., vol. 7, no. 1, pp. 27–34, 2020, doi: 10.1177/2372732219893385.
12. C. Condie and F. Pomerantz, "Elementary students' literacy opportunities in an age of accountability and standards: Implications for teacher educators," Teach. Teach. Educ., vol. 92, p. 103058, 2020, doi: 10.1016/j.tate.2020.103058.
13. M. Nicholas, N. Veresov, and J. C. Clark, "Guided reading – Working within a child's zone of proximal development," Learn. Cult. Soc. Interact., vol. 30, no. PA, p. 100530, 2021, doi: 10.1016/j.lcsi.2021.100530.
14. D. A. Rahma, R. Winarni, and Winarno, "The challenges and readiness of elementary school teachers in facing society 5.0 through online learning during the covid-19 pandemic," ACM Int. Conf. Proceeding Ser., pp. 15–20, 2020, doi: 10.1145/3452144.3453743.
15. X. M. Ngo, "A sociocultural perspective on second language writing teacher cognition: A Vietnamese teacher's narrative," System, vol. 78, pp. 79–90, 2018, doi: 10.1016/j.system.2018.08.002.
16. M. M. Neumann, "Using tablets and apps to enhance emergent literacy skills in young children," Early Child. Res. Q., vol. 42, no. October 2016, pp. 239–246, 2018, doi: 10.1016/j.ecresq.2017.10.006.
17. F. Birgisdottir, S. Gestsdottir, and G. J. Geldhof, "Early predictors of first and fourth grade reading and math: The role of self-regulation and early literacy skills," Early Child. Res. Q., vol. 53, pp. 507–519, 2020, doi: 10.1016/j.ecresq.2020.05.001.
18. A. Leopold, Downloaded by [University of California , San Diego] at 21 : 12 11 February 2017 Downloaded by [University of California , San Diego] at 21 : 12 11 February 2017. 2016.
19. K. Fukuda, "Science, technology and innovation ecosystem transformation toward society 5.0," Int. J. Prod. Econ., vol. 220, no. July 2019, p. 107460, 2020, doi: 10.1016/j.ijpe.2019.07.033.

20. K. Nagy, E. Hajrizi, and L. Palkovics, "Responsible Innovation in Support of Society 5.0 - Aspects of Audit and Control," IFAC-PapersOnLine, vol. 53, no. 2, pp. 17469–17474, 2020, doi: 10.1016/j.ifacol.2020.12.2123.
21. A. M. Elleman and E. L. Oslund, "Reading Comprehension Research: Implications for Practice and Policy," Policy Insights from Behav. Brain Sci., vol. 6, no. 1, pp. 3–11, 2019, doi: 10.1177/2372732218816339.
22. L. A. Anggrasari, "Penerapan e-learning untuk meningkatkan kemampuan literasi digital di era new normal," Prem. Educ. J. Pendidik. Dasar dan Pembelajaran, vol. 10, no. 2, p. 248, 2020, doi: 10.25273/pe.v10i2.7493.
23. L. Ellitan, "Competing in the Era of Industrial Revolution 4.0 and Society 5.0," J. Maksipreneur Manajemen, Koperasi, dan Entrep., vol. 10, no. 1, p. 1, 2020, doi: 10.30588/jmp.v10i1.657.
24. X. Hu, F. K. S. Leung, and G. Chen, "School, family, and student factors behind student attitudes towards science: The case of Hong Kong fourth-graders," Int. J. Educ. Res., vol. 92, no. July, pp. 135–144, 2018, doi: 10.1016/j.ijer.2018.09.014.
25. M. Sholikah, Yufiarti, and E. Yetti, "Early childhood literacy skills: The effect of socioeconomic status, home literacy environment, and social skills," Int. J. Innov. Technol. Explor. Eng., vol. 9, no. 1, pp. 3769–3775, 2019, doi: 10.35940/ijitee.A4807.119119.
26. C. Meng, "Parent–child interactions longitudinally mediate the association between shared literacy activities and emergent literacy and oral language skills," Read. Writ., vol. 34, no. 6, pp. 1593–1612, 2021, doi: 10.1007/s11145-021-10130-z.
27. S. Z. Zhang, T. Inoue, H. Shu, and G. K. Georgiou, "How does home literacy environment influence reading comprehension in Chinese? Evidence from a 3-year longitudinal study," Read. Writ., vol. 33, no. 7, pp. 1745–1767, 2020, doi: 10.1007/s11145-019-09991-2.
28. C. Lucas, P. Hood, and D. Coyle, "Blossoming in English: Preschool Children's Emergent Literacy Skills in English," J. Res. Child. Educ., vol. 35, no. 3, pp. 477–502, 2021, doi: 10.1080/02568543.2020.1742256.
29. S. Brink and C. Nel, "Contradictions within an activity of second language reading literacy," South African J. Child. Educ., vol. 9, no. 1, pp. 1–11, 2019, doi: 10.4102/sajce.v9i1.687.
30. M. K. Rand and L. M. Morrow, "The Contribution of Play Experiences in Early Literacy: Expanding the Science of Reading," Read. Res. Q., vol. 56, no. S1, pp. S239–S248, 2021, doi: 10.1002/rrq.383.
31. S. Tatalović Vorkapić and V. Katić, "Literacy-related school readiness through play in Croatia," Int. J. Early Years Educ., vol. 28, no. 3, pp. 277–294, 2020, doi: 10.1080/09669760.2020.1803046.
32. B. D. Roe, S. H.Smith, and N. Kolodziej, Teaching Reading ın Today's Elementary Schools. 2019.
33. J. Doležalová, "Competencies of Teachers and Student Teachers for the Development of Reading Literacy," Procedia - Soc. Behav. Sci., vol. 171, pp. 519–525, 2015, doi: 10.1016/j.sbspro.2015.01.156.
34. Y. Shen and S. N. Del Tufo, "Parent-child shared book reading mediates the impact of socioeconomic status on heritage language learners' emergent literacy," Early Child. Res. Q., vol. 59, pp. 254–264, 2022, doi: 10.1016/j.ecresq.2021.12.003.
35. J. P. Pezoa, S. Mendive, and K. Strasser, "Reading interest and family literacy practices from prekindergarten to kindergarten: Contributions from a cross-lagged analysis," Early Child. Res. Q., vol. 47, pp. 284–295, 2019, doi: 10.1016/j.ecresq.2018.12.014.
36. S. Hidayatullah, Y. Mulyati, V. S. Damaianti, and T. Permadi, "Effectiveness of Dialogical Reading Literacy Programs in Improving Language Skills and Literacy of Early Students," Int. J. Learn. Teach. Educ. Res., vol. 22, no. 8, pp. 233–252, 2023, doi: 10.26803/ijlter.22.8.13.
37. I. Nurmahanani, "Effectiveness of a Mixed Methods-Based Literacy Program in Improving Reading Comprehension, Vocabulary Mastery, and Reading Fluency Skills of Early Grade Students," Int. J. Learn. Teach. Educ. Res., vol. 22, no. 7, pp. 324–343, 2023, doi: 10.26803/ijlter.22.7.17.
38. M. Torppa, K. Vasalampi, K. Eklund, and P. Niemi, "Long-term effects of the home literacy environment on reading development: Familial risk for dyslexia as a moderator," J. Exp. Child Psychol., vol. 215, p. 105314, 2022, doi: 10.1016/j.jecp.2021.105314.
39. J. P. Guevara et al., "Effects of Early Literacy Promotion on Child Language Development and Home Reading Environment: A Randomized Controlled Trial," J. Pediatr. X, vol. 2, p. 100020, 2020, doi: 10.1016/j.ympdx.2020.100020.
40. G. Yeomans-Maldonado and C. Mesa, "The association of the home literacy environment and parental

reading beliefs with oral language growth trajectories of Spanish-English bilingual children," Early Child. Res. Q., vol. 57, pp. 271–284, 2021, doi: 10.1016/j.ecresq.2021.07.001.
41. M. Romero-González, R. Lavigne-Cerván, M. S. M. de León, S. Gamboa-Ternero, R. J. R. de Mier, and J. F. Romero-Pérez, "Effects of a home literacy environment program on psychlinguistic variables in children from 6 to 8 years of age," Int. J. Environ. Res. Public Health, vol. 18, no. 6, pp. 1–19, 2021, doi: 10.3390/ijerph18063085.
42. C. Mesa et al., "The effects of reading and language intervention on literacy skills in children in a remote community: An exploratory randomized controlled trial," Int. J. Educ. Res., vol. 100, no. November 2019, p. 101535, 2020, doi: 10.1016/j.ijer.2020.101535.
43. N. L. Alston-Abel and V. W. Berninger, "Relationships Between Home Literacy Practices and School Achievement: Implications for Consultation and Home–School Collaboration," J. Educ. Psychol. Consult., vol. 28, no. 2, pp. 164–189, 2018, doi: 10.1080/10474412.2017.1323222.
44. F. Guzmán-Simón, J. Gil-Flores, and A. Pacheco-Costa, "Home literacy environment and reading comprehension in Spanish primary education," J. Res. Read., vol. 43, no. 2, pp. 229–247, 2020, doi: 10.1111/1467-9817.12299.
45. T. Ruecker, "Digital divides in access and use in literacy instruction in rural high schools," Comput. Compos., vol. 64, p. 102709, 2022, doi: 10.1016/j.compcom.2022.102709.
46. J. Li, A. Brar, and N. Roihan, "The use of digital technology to enhance language and literacy skills for Indigenous people: A systematic literature review," Comput. Educ. Open, vol. 2, no. April, p. 100035, 2021, doi: 10.1016/j.caeo.2021.100035.
47. H. Wibawanto and Roemintoyo, "The learning method of society 5.0 during new normal in Indonesia: Case Study: Vocational Highschool in Surakarta, Indonesia," ACM Int. Conf. Proceeding Ser., pp. 0–5, 2020, doi: 10.1145/3452144.3452196.
48. A. Nugraha and F. Aminur Rahman, "Android Application Development of Student Learning Skills in Era Society 5.0," J. Phys. Conf. Ser., vol. 1779, no. 1, pp. 0–9, 2021, doi: 10.1088/1742-6596/1779/1/012014.
49. I. F. Rachmat, S. Hartati, and Erdawati, "Family cohesion, interpersonal communication, and smartphone addiction: Does it affect children's emotional dysregulation?," Cakrawala Pendidik., vol. 40, no. 2, pp. 279–291, 2021, doi: 10.21831/cp.v40i2.34214.
50. F. R. Vellutino, W. E. Tunmer, J. J. Jaccard, and R. Chen, "Components of Reading Ability: Multivariate Evidence for a Convergent Skills Model of Reading Development," Sci. Stud. Read., vol. 11, no. 1, pp. 3–32, 2007, doi: 10.1080/10888430709336632.
51. D. Barton, Literacy: An Introduction to the Ecology of Written Language, 2nd ed. Oxford: Blackwell, 2007.
52. A. D. Friederici, Language in Our Brain: The Origins of a Uniquely Human Capacity. Cambridge, MA: MIT Press, 2017.
53. E. Maharsi et al., "Pendampingan Literasi Dasar Tahap Pengembangan di SD Kristen YBPK Kota Malang," J. ABDIMAS, vol. 6, no. 1, 2021, doi: 10.26905/abdimas.v6i1.5007.
54. Kementerian Pendidikan dan Kebudayaan Republik Indonesia, Panduan Gerakan Literasi Sekolah di Sekolah Dasar. Jakarta: Direktorat Jenderal Pendidikan Dasar dan Menengah, 2017.
55. P. Wiedarti and K. Laksono, Desain Induk Gerakan Literasi Sekolah. Jakarta: Direktorat Jenderal Pendidikan Dasar dan Menengah, Kementerian Pendidikan dan Kebudayaan, 2016.
56. Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi, Dimensi, Elemen, dan Sub-elemen Profil Pelajar Pancasila. Jakarta: Badan Standar, Kurikulum, dan Asesmen Pendidikan, 2022.
57. Department of Education and Training, Victoria State Government, "Literacy Teaching Toolkit: Guided Reading," 2020.
58. J. W. Creswell, "Reflections on the MMIRA The Future of Mixed Methods Task Force Report," J. Mix. Methods Res., vol. 10, no. 3, pp. 215–219, 2016, doi: 10.1177/1558689816650298.
59. D. J. Weigel, S. S. Martin, and K. K. Bennett, "Contributions of the home literacy environment to preschool-aged children's emerging literacy and language skills," Early Child Dev. Care, vol. 176, no. 3–4, pp. 357–378, 2006, doi: 10.1080/0300443042000313500.
60. S. D. Nirmala, "Kemampuan Berpikir Kritis Siswa Kelas IV Se-Gugus 2 Purwasari dalam Membaca Pemahaman melalui Model FIVES dan Model Guided Reading," J. Din. Pendidik. Dasar, vol. 10, no. 2, pp. 44–58, 2018.

61. R. Griffith, Teachers as Decision Makers: Responsive Guided Reading Instruction. Routledge, 2023.
62. T. Pressley, R. L. Allington, and M. Pressley, Reading Instruction That Works: The Case for Balanced Teaching. Guilford Publications, 2023.
63. S. Litina and Z. Rubene, "The effect of digital school culture on science education and scientific literacy: A scoping review," J. Educ. Cult. Soc., vol. 15, no. 1, pp. 41–55, 2024.