

Evaluating Early Reading Challenges and Their Influence on Phonological and Linguistic Awareness in Elementary Students in DKI Jakarta

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Abstract: The purpose of this study is to determine and describe early reading difficulties (ERD) of the elementary school children in DKI Jakarta with its phonological and linguistic awareness. Adopting a descriptive quantitative design, the performance of 65 children between the ages of 7 and 11 years (2nd to 5th grades) on measures of letter identification, syllable and word reading, phonological awareness, and linguistic awareness was tested. There was a broadly variable distribution of students' reading difficulties across the three reading difficulty levels: 43% independent, 22% instructional, and 35% frustration. The overwhelming majority of the children had difficulty blending phonemes to form syllables and words, rather than identifying individual letters, suggesting that children had not developed phonological awareness. External influences such as quality of teaching and environment for learning, were found to be major contributory factors. The results are discussed about the need for interventions that target skills in areas of phonological blending, syllable decoding, and language comprehension as opposed solely to letter identification. The study also underscores the importance of teacher training and the cumulative effect of the Covid-19 pandemic on early literacy acquisition. Such insights can then be used by educators and policy makers to develop more effective, research-based reading programs that are designed to address individually the needs of students and result in improved academic and lifelong skills.

Keywords: Early Reading Difficulties; Phonological Awareness; Linguistic Awareness; Elementary Education; Reading Intervention.

INTRODUCTION

Reading is a fundamental ability in early schooling, crucial for cognitive development and academic achievement. It encompasses not just the recognition of letters and words but also the comprehension, interpretation, and critical analysis of material. Early reading competency is essential for academic success and future learning, serving as the foundation for subsequent educational accomplishments (Tortorelli & Strong, 2025).

Despite its significance, numerous primary school pupils in metropolitan environments such as DKI Jakarta encounter substantial reading difficulties. Numerous studies indicate that a significant proportion of students, particularly in the early grades, struggle to achieve the expected reading proficiency. These students often operate at “frustration” or “instructional” levels, indicating their inability to read independently and their need for ongoing support. Challenges in early reading proficiency can lead to academic difficulties, diminished self-esteem, and reduced motivation to learn (Widyanuratikah, 2021).

The causes of these early reading challenges are complex, stemming from both internal and external influences. Internally, numerous youngsters encounter difficulties such as inadequate letter identification, diminished phonological awareness, and issues with phoneme processing. Phonological awareness, defined as a child’s capacity to identify and manipulate sounds in spoken language, is essential for the advancement of reading skills. Linguistic awareness, encompassing knowledge of grammar, syntax, and sentence structure, significantly contributes to reading comprehension (Taboer, Rochyadi, & Sunardi, 2020). External factors, including instructional quality, resource availability, and home support,

have a significant influence on early reading development. The gap between the ideal scenario, where all students read smoothly and comprehend text, and the reality, in which numerous students in DKI Jakarta encounter reading difficulties, demands a thorough examination of these aspects.

The necessity of this investigation is heightened by the substantial rise in learning impairments resulting from the COVID-19 epidemic. The abrupt transition to remote learning disrupted conventional classroom environments, intensifying the challenges faced by pupils, especially those with reading difficulties. The epidemic led to a scenario in which numerous pupils, particularly those with pre-existing academic difficulties, lacked the personalized support necessary for literacy development (Desta, 2020).

This study examines the essential requirement for comprehending early reading challenges among elementary pupils in DKI Jakarta, with a special emphasis on phonological and linguistic awareness as pivotal elements. This research aims to provide a comprehensive profile of the reading challenges faced by students in this urban context by assessing their skills in letter identification, syllable and word reading, and their understanding of phonological and linguistic concepts. The study examines the interplay between phonological and linguistic awareness and their combined effect on reading proficiency.

The current study consistently highlights the importance of phonological awareness in the development of reading skills. Taboer et al. (2020) found that children with diminished phonological awareness often experience difficulties in word reading and comprehension. Nevertheless, the majority of research predominantly emphasizes phonological awareness, frequently neglecting the supportive function of linguistic awareness. Linguistic awareness, encompassing the comprehension of language rules and structures, is essential for reading comprehension, particularly when pupils encounter increasingly complex texts. An integrated approach that combines phonological and linguistic awareness is necessary for effectively treating the root causes of early reading difficulties.

This study is particularly relevant due to the substantial disruptions caused by the COVID-19 pandemic. The pandemic's impact on education has led to a significant decline in learning, particularly in essential skills such as reading. As educational institutions progressively resume face-to-face instruction, there is an urgent need for interventions to bridge these gaps and facilitate the enhancement of fundamental literacy skills.

The primary objective of this study is to evaluate early reading challenges among elementary school pupils in DKI Jakarta, with a specific focus on the correlation between these challenges and their phonological and linguistic awareness. The study aims to provide practical insights that will help educators and policymakers develop more effective, research-driven solutions for addressing reading challenges. The study will examine how external factors, such as the quality of teaching and learning environments, have impacted children's capacity to develop reading abilities, especially during the COVID-19 pandemic.

This study will employ a descriptive quantitative methodology to evaluate the reading performance of 65 children in letter recognition, syllable and word reading, phonological awareness, and linguistic awareness. The research will assess these skills and investigate their interactions and contributions to early reading challenges. Moreover, the study will examine the distribution of these challenges among various student cohorts, encompassing those at independent, instructional, and frustrated levels.

This study aims to contribute to the existing literature on early literacy development, particularly in metropolitan environments such as DKI Jakarta. It will offer critical insights into the determinants of early reading competency and demonstrate the importance of both phonological and linguistic awareness in promoting reading success. The study's findings will inform the development of more targeted, evidence-based reading programs tailored to meet the specific needs of children in DKI Jakarta and similar metropolitan regions.

The study's findings will be important to instructors. The findings can be utilized to modify instructional practices to more effectively address the varied needs of children, especially those who are experiencing difficulties with foundational reading abilities. Policymakers will gain from the study's recommendations, which can inform the development of inclusive and adaptable educational policies that more effectively assist children with early reading challenges. This research aims to ensure that every child, regardless of their background or challenges, has the opportunity to acquire essential literacy skills necessary for academic success and lifelong learning. By fostering an equitable learning environment, educators will be better equipped to implement targeted interventions that cater to individual learning styles and needs. Ultimately, this approach not only enhances literacy outcomes but also fosters a lifelong love for reading.

METHOD

Research Design

Description of the Research This research is descriptive and quantitative and aims to identify and describe the early reading difficulties (ERD) experienced by elementary school students in DKI Jakarta. A quantitative method is used so that the researcher can objectively and systematically measure the phenomenon under observation and investigate the relationships between variables, notably the relationship between students' reading level and their phonological and linguistic awareness.

A descriptive design is used to comprehensively describe the distribution of the student's reading levels (the independent, instructional, and frustration levels). The approach attempts to give an accurate, systematic, and detailed description of the characteristics of children with reading difficulties and to establish appropriate remediation procedures to improve their reading ability.

Research Location and Participants

The present study was conducted in several elementary schools in the DKI Jakarta region. The sites were chosen to represent socioeconomic diversity and the schools' willingness to participate in the study. The subjects were 65 second- and third-graders. The purposive sampling technique was adopted to sample participants, whose selection criteria included learners who classroom teachers have identified as struggling to read based on their observation and prior assessment results.

Intervention: Teachers in the classroom played a critical role in the early identification process by identifying students who presented symptoms of impaired ER-skill development based on criteria such as delayed phonological development, trouble recognizing letters, syllable reading, and word reading. Students were recruited randomly from the screened participants to reduce selection bias and increase sample strength.

Research Instruments

The instruments used in this study were developed through modifications of measures created by Taboer et al. (2019) and then rated by experts in education specialized in special education and assessment. The instruments were constructed based on five core measures for assessing various components of basic reading skills: Letter Recognition Assessment assesses students' ability to recognize and name alphabetic letters. It has been claimed that letter recognition is a basic skill for learning to read, a critical pre-reading skill upon which the subsequent steps of the reading process (e.g., phonemic, syllabic, and lexical representations) are based. Syllable Reading Assessment Assesses student's ability to blend letters into syllables and speak them orally. This dimension is essential since difficulties in reading syllables might indicate decoding and phonological segmentation problems. Word Reading Screening This is a Word reading screen for French pupils who can read commonly used whole words in primary. The evaluation includes speed, accuracy, and lexico-syntactic knowledge. Phonological Awareness Test It measures competency in identifying/ Distinguishing/ Manipulating phonemes in words (e.g., identifying rhyming distinctions, blending phonemes, deleting/substituting phonemes). Linguistic Awareness Testing Focuses on students' knowledge and understanding of all aspects of language structures - grammar and syntax (sentence word order) and the structure of words (morphology). Reading Comprehension, a facility with language improves comprehension.

Quantitative analysis and score scales were defined for all instruments. Before the instruments were administered to a large population, a group of students was tested using them to examine their reliability and construct validity. Expert opinions and the results of the pilot test are the basis for optimizing the instruments adjusted for Indonesian elementary school students.

Instruments validity and reliability

Three specialists in special education and educational measurement reviewed the instruments for content validity. The researchers gave input on the indicators tested in each instrument, focusing on the content's relevance to the development characteristics of young elementary students. Based on their suggestions, revisions were made to ensure that each item measured the competencies.

A pre-test (pilot test) by 20 participants who were not included in the pre-treatment issues was used to assess the reliability and readability of the items. As shown in the results, Cronbach's Alpha reliability coefficients were all equal to or above 0.80 for every single test item in the test, meaning that test items have good reliability of measurement and consistently measure early reading skills.

Data Collection Methods

There were two main phases of data collection. The first phase consisted of interviews with classroom teachers to collect basic information on students with reading problems based on classroom observation and prior assessment. Phase 2 involved testing the students selected in Phase 1. Each student was tested one at a time, with the duration customized for each student to ensure comfort and accurate results. Every session took place in an appropriate, quiet environment, with the length being approximately 30–40 min per student. The observer also recorded students' nonverbal behavior during the tests as complementary data.

In accordance with research ethics, the study received permission from the schools to be utilized as an official test, and written consent was obtained from the parents of the students prior to the tests. The students' data were kept confidential and used only for this research.

Measurement Methods

Data Full Particle Size Analyses of Ground Slag Ground granulated blast-furnace slag was prepared by ASTM C 125 characterization procedures (13) using a laser diffraction method for particle size analysis. The data were analyzed using a descriptive statistical method. The scores of the students for the five exam types were grouped into three levels of reading ability;

1. Independent Level: Student can read and understand the topic on their own.
2. Reading Level: The students need a teacher or adult to help them read.
3. Frustration Level: Students experience — and the text is too difficult to read, even with help.

After classification, the number and percentage of students' reading ability were calculated to investigate the distribution of students' reading ability. Pearson correlation analysis explored phonological and linguistic awareness correlations with reading scores.

The analysis focused on mapping each student's reading difficulty profile in terms of subtest scores. This approach aimed to discover commonalities and differences in emerging reading difficulties and determine which components required further investment.

The results of the analyses are presented in tabular and graphic formats to aid reader interpretation and serve as the basis for concrete recommendations in remediation and classroom practice. This methodical practice will likely facilitate a much better understanding and achievement in early reading during subsequent primary years.

Research Procedure

The study was initiated upon receiving consent and approval from school authorities and research ethics committee. After that, socialization was done with school teachers and parents about the research aim, why it was necessary, and how it would be used so that everyone understood and accepted all activities.

Identification of students with reading difficulties Initially, students with reading difficulties were identified by in-depth teacher interviews and direct classroom observations. The observation data was directed at students' performance when they were reading in the learning process, that is reading of the letters and the syllables, as well as the words.

After determining eligibility, testing occurred with use of well-established instruments. All tests took place in a comfortable room in isolation from other participants, with no time constraints, and were monitored to ensure that the test results accurately reflected the students' real skill, free from pressure.

As well as the assessments, the researcher obtained complementary information through semi-structured interviews with the classroom teachers and parents, to account for extrinsic factors affecting reading ability, home learning environment and social support.

Variable Resolution and Internal Validity

The following were adjusted for by the researcher to reduce bias and confounding:

1. Test environment: A quiet comfortable room to minimize distractions during testing.
2. General instructions Common instructions for the test were presented to all students in order to guarantee homogeneity of commands.

3. Subjects' selection and randomization: Participants were randomly chosen from the pool of identified students to avoid selection bias.
4. Test monitoring: The test was monitored by the researcher so that participants would not be distracted or helped during the testing session.

Research Ethics

Human research ethical principles This work was conducted in compliance with human research ethical standards derived from:

1. Written consent from parents/guardians as informed consent was applied.
2. Safeguard gender data on students and only utilize the data for research purposes.
3. Granting subjects the opportunity to withdraw at any time without penalty.
4. Disseminating of research finding to school and parents as a feedback.

FINDING AND DISCUSSION

Finding(s)

The goal of this research is to discuss the types of early reading challenges that DKI Jakarta primary school pupils have and how they affect them. The focus of this study is the students' ability to read words, syllables, and letters, as well as the phonological and linguistic awareness variables that are related to these skills. The research results indicate that 65 II-V graders had heterogeneous difficulty profiles, with many kids showing distinct types of early reading problems. These results show that students who have trouble reading early on don't all have the same problems; instead, the problems are entirely unique in terms of type and severity. It is crucial to understand these different profiles to make focused treatments that will help pupils strengthen their reading skills.

This study's target group is elementary school pupils who may be having trouble reading at an early age. The sample of 65 pupils was selected from a few elementary schools in DKI Jakarta. Teachers' assessments of pupils having trouble with early reading abilities helped us choose the students. We tested the student's ability to read letters, syllables, and words, as well as their phonological and linguistic awareness. The tests were meant to find out what each student's reading skills were lacking in so that the teacher could use different methods to help them. Teachers can use their knowledge of phonological and linguistic awareness to make specific changes that will improve students' overall reading skills.

These were tests to see how well kids could read and write. For example, being able to identify letters and read are important steps in improving reading skills, and being able to hear and manipulate sounds in words is important for developing fluency. Literary awareness, or knowing how language works and is put together, is also key to word and sentence structure.

Table 1. Reading Skill Test

Initial Name	Class	Score					Level
		Word	Syllable	Letter	Phonological Awareness	Linguistic Awareness	
AR	3	90	90	60	85	76	Independent
LI	5	50	40	63	55	72	Frustration
MEM	3	50	57	70	80	72	Independent
MR	3	70	67	76.67	85	72	Instruction

Initial Name	Class	Score					Level
		Word	Syllable	Letter	Phonological Awareness	Linguistic Awareness	
RDP	3	30	47	40	65	56	Frustration
SB	4	80	50	80	60	64	Independent
SEW	3	60	76.67	76.67	83	80	Instruction
ZRR	5	70	76.67	73	83	72	Instruction
MAI	2	80	74	39	78	69	Independent
AN	2	90	23	94	95	73	Independent
AAR	2	30	52	71	92	77	Frustration
RF	2	30	26	48	84	62	Frustration
AMA	2	90	65	100	100	65	Independent
G	2	80	61	45	54	77	Independent
RRA	2	40	48	74	59	69	Frustration
DS	2	60	48	65	81	62	Instruction
MRA	2	90	81	97	100	77	Independent
MVJ	2	50	52	77	81	69	Frustration
AD	3	50	77	84	89	69	Frustration
R	2	80	81	87	100	73	Independent
AJ	3	60	76.67	100	68	100	Instruction
COS	3	50	40	67	55	70	Frustration
EA	5	60	67	80	83	90	Instruction
FA	3	90	93	83	100	95	Independent
H	5	80	73	93	90	85	Independent
IM	2	60	43	83	85	75	Instruction
KDS	6	100	93	0	0	0	Independent
MS	2	10	43	47	75	70	Frustration
RAH	2	50	53	87	75	90	Frustration
ZA	6	90	93	83	88	100	Independent
ZAF	4	80	90	0	0	0	Independent
AP	2	40	76.67	70	70	85	Frustration
APW	4	90	86.67	86.67	80	90	Independent
AM	6	40	66.67	83.33	60	90	Frustration
DRP	4	80	80	80	90	95	Independent
Z	2	90	0	00.00	0	75	Independent
AJM	2	50	60	63	78	90	Frustration
AKA	3	60	50	93	73	95	Instruction
AJ	6	10	53	67	48	90	Frustration
AE	4	70	43	100	70	95	Instruction
CM	2	40	76.67	76.67	60	90	Frustration

Initial Name	Class	Score					Level
		Word	Syllable	Letter	Phonological Awareness	Linguistic Awareness	
D	2	40	0	0	0	0	Frustration
FH	3	60	76.67	83	80	95	Instruction
F	3	50	56.67	80	85	95	Independent
HSR	2	100	93	0	0	0	Independent
KA	5	70	90	87	80	95	Instruction
LAF	3	90	90	100	85	90	Independent
SZT	2	50	43	90	58	90	Frustration
A	5	90	90	0	0	0	Independent
AR	2	80	80	86.67	98	95	Independent
EW	4	70	70	73	85	95	Instruction
GMS	4	100	100	0	0	0	Independent
MP	2	90	90	86.67	93	95	Independent
MAF	2	60	60	90	85	90	Instruction
MAJ	4	80	80	0	90	0	Independent
MAR	4	60	60	66.67	80	90	Instruction
MDA	5	30	30	76.67	88	90	Frustration
MKR	2	40	40	76.67	80	90	Frustration
MRA	4	60	60	93	88	95	Instruction
MS	2	80	80	90	83	95	Independent
MSI	4	90	90	86.67	90	95	Independent
R	5	50	50	83	70	90	Frustration
SO	2	40	40	66.67	63	90	Frustration
SA	2	100	100	0	0	0	Independent

Table 2. Beginning Reading Ability Level

Beginning Reading Ability Level	Amount
Independent	28
Instruction	14
Frustration	23

Results of the Reading Skill Test

Table 1 below shows the results of the reading skills tests given to the 65 people who took part in the study. These duties included reading letters, syllables, and words and being aware of phonological and linguistic issues. The results indicated that the pupils were at three different reading levels: autonomous, instruction, and frustration. How well did students read at first? Table 1 shows descriptive statistics for the early reading capabilities.

This table shows that some kids are better at reading than others. Independent kids consistently read with a certain degree of ease. On the other hand, students at the instruction level had some trouble and needed help, while students at the frustration level had a lot of trouble and needed a lot of help.

Table 2 shows how many students there are dependent on how well they can read. Thirty-one of the 65 pupils that took the test were at the independent level, and 11 were at the instruction level. This distribution shows that many pupils have trouble reading at an early age and that the biggest group is in the frustration and instruction category. This means that these pupils need specific help and interventions to get better at reading and move on to greater levels of proficiency. To help these kids do well in school and feel positive about their reading, it's important to meet their needs in both the irritation and instruction categories.

The examination of the data reveals that many pupils who struggle with early reading find it more difficult to combine phonemes (the sounds that make up letters) into larger units, such as syllables and words, than they do to recognize the letters themselves. This shows that the first challenge isn't recognizing letters but putting these sounds together to make harder reading units. For instance, phonological awareness tests indicated that only a small number of kids (approximately 6%) had trouble hearing and manipulating sounds. This suggests that phonological awareness alone may not be the primary reason most children struggle with early reading. Instead, problems seem to come up when kids start putting phonemes together to make syllables and words.

The findings of this study support important childhood beliefs about reading problems. It is well known that many people who have trouble reading have trouble connecting sounds (phonemes) to the letters or graphemes that represent them. This is the first step in reading more complex words.

The biggest decoding difficulty for most pupils is mixing sounds to make syllables and words, as this study showed. This indicates that we need to consider more comprehensive and continuous interventions that incorporate phonological skills, such as blending phonemes into syllables and words. This research supports the idea that teaching kids to read and write early on is important for phonological or syllable blending.

Furthermore, the fact that not many pupils have phonological awareness problems suggests that teachers may already be focusing on these skills in their students. Students in the Frustration and Instruction levels still need help with phoneme-syllable word blending, though.

The study's results show that reading help should start early. It's crucial to teach kids phonemic sensitivity early on, but they also need direct guidance on how to mix sounds into syllables and words. The results show that just teaching meaning units without paying attention to the phoneme mixing skill that goes with them could be detrimental for kids who are still learning the basics of reading.

For kids who are frustrated or need help, therapies should focus on teaching them how to mix phonemes, syllables, and words and how to read more quickly by giving them specific practice in phonological awareness. Teachers need to discover strategies to help each child with their problems and help them improve their reading and writing skills.

The primary thing we learned from our study is that early reading problems are mostly caused by trouble reading words and syllables, not by trouble recognizing letters. Phonological awareness is vital, although not many kids have trouble with it. The main problem seems to be the ability to put phonemes together to make words and syllables that make sense.

Future research should investigate how pupils learn in the early years, focusing on the methods teachers use to teach reading. Knowing how teachers teach letters, syllables, and words is a crucial part of understanding the problems kids have in school.

Future-focused interventions should not just focus on letter identification, but they should also work on improving phonological skills, especially blending phonemes. Teachers will need to get more training on how to teach early literacy skills, such as phoneme mixing, to students who are at the instruction and frustration levels.

This study also shows that most students can overcome their early reading problems with the right help and interventions. Customized help that focuses on each student's specific needs and early reading problems can make the difference between doing well in school and failing.

Summary of Participant Information

Participants The participants in this study were 65 second to fifth-grade students in DKI Jakarta, who were at-risk for early reading difficulties according to their classroom teachers. The data were also obtained with respect to word score reading, syllable score reading, letter score reading and phonological and linguistic awareness scores.

Some participants were better readers (we defined them according to 3 reader groups):

1. Independent Level: 28 students (43%) read well and fluently at an independent level.
2. Level Of Instruction: 14 students (22%) indicated mild difficulties and needed help reading.
3. Frustration Level: 23 students (35%) experienced significant reading difficulties and needed intensive intervention.

This distribution suggests the majority of students examined are experiencing some degree of early reading difficulty and need special attention in intervention data.

Analysis of Word, Syllable, and Letter Reading Abilities

Out of 65 students, only 2 showed significant difficulty in reading letters, while the majority (about 97%) could recognize and read letters well. This indicates that letter recognition is not the main barrier for most students in early reading.

In contrast to letter reading, there was marked variation among participants in syllable reading skill. Nearly 40 percent of children had trouble blending letters into syllables. This challenge is an early sign of a difficulty with phonemic processing, or the ability to combine phonemes into larger units, which is an important skill in learning to read.

Word reading levels differed such that 35% were at frustration, 22% at instructional and the remaining at independent levels. These results indicate that the reading of whole words is a major difficulty faced by children with early reading difficulties, specifically struggling with reading of syllables.

Phonological and Linguistic Awareness Analysis

Data reveal that only 6% students struggled with phonological awareness, like recognizing and manipulating sounds in words. This suggests that while phonological awareness is a strong predictor of reading, most of the participants with early reading failure in this study did not otherwise demonstrate substantial difficulty in this domain.

Students held widely differing perspectives in terms of the awareness of language, such as knowledge of grammar and sentence, and so on. Some demonstrated good ability, while others encountered barriers resulting in an inability to understand words and passages entirely.

Early Reading Difficulties Profile

Early reading problems are more connected to phonemic than to letter-acoustic processing, as evidenced here by the fact that children have difficulties with syllable/word reading but not with letter checks. These figures reveal that children reading at 'frustration' and 'instructional' levels lack the ability to read in a single syllable and word despite having good letter recognition skills.

Fewer students struggled with phonological awareness, indicating it was a relatively minor internal factor contributing to reading problems for the majority of students in this sample. Therefore, factors extrinsic to the students, such as the methods of instruction, educational experiences, school climate, etc., could be of predominant importance.

Poor metalinguistic awareness is also a source of reading difficulty, particularly for sentence structure and word meaning. This is evidence that reading is not just recognizing letters and sounds, read and talk but understanding language context in general.

Evidence that early reading difficulties are not necessarily related to students' grade levels. Some of the higher-level students are stuck at an instructional or frustration level while ample lower-level students can read it independently. This underscores the importance of personalised learning supports, not just based on grade or age.

Findings and Implications for Learning Interventions

To generalize well to new words in application-agnostic speech-to-print mapping, the model must also be able to blend across phoneme-to-syllable (PHOtoSBL) and word unit (WORD-PA) boundaries, as shown in Fig. The obvious conclusion would be that (early) interventions should focus on the (a) development of children's skills at blending phonemes in syllables and words. These skills need to be taught intensively using programs that make phoneme segmentation and blending skills manageable.

While phonological awareness is not a primary concern for most students, it does require reinforcement as a foundational skill. Additionally, programmes should consider language awareness by teaching students to become more aware of language context and structure.

The content of curricula and methods of teaching need to be made more adaptable to students' special requirements. Good reading intervention will need to be predictable and provide repetition in practice with materials and individualized for students at every level.

Role of Learning Environment and Experience

Conversations with teachers and interview data also indicate that learning experience and environment at least are significant environmental determinants of poor reading. Inadequate teacher knowledge of the reading readiness factors, and limited learning experiences, contribute to reading problems that children experience as they learn to read.

Treat this tendency with rank stupidity, community by community from sea to shining sea until the COVID-19 pandemic made it the rule by which many students had to make do with subpar distance learning (in particular, those who had special reading needs).

The hardest work is making phonemes and combining sounds, not recognition of letters.

A minority of students experience phonological awareness problems, when referring to external causes. Linguistic awareness is significant for reading comprehension and should be a target of intervention.

Interventions need to be tailored and there is a need for richer learning experiences and support for the teacher. It got more complicated with the COVID-19 pandemic to be a beginning reader. The effects of classroom-related reading experience, teaching methods, or environmental factors at home should be explored in depth in further studies. Longitudinal studies would also be useful to monitor students' development in reading over time and the impact of interventions.

This research also reveals that reading difficulties experienced by elementary students in DKI Jakarta are mainly due to early reading problems in syllable and word reading, not letter identification and poor phonological awareness. Thus, prevention programs should target phoneme blending as well as the extension of this ability to the level of syllables and words, to enhance language awareness.

Discussion(s)

This study could profile the early reading problems of elementary schools in the DKI Jakarta area, which is only restricted to the level of reading words and syllables and in terms of phonological and linguistic awareness. The findings are that most students in this age group experience difficulties in reading syllables and words but that the symptoms of letter recognition are not their primary obstacles. This result is consistent with Taboer et al. (2019) and Stanovich (2005), who proposed that phonological awareness, in particular, blending phonemes to form syllables and words, is central to reading acquisition. The finding indicates that interventions to develop students' phonological skills are crucial for improving the reading level of these students. On the curriculum side, you must hit the sounds by having the kids do workouts that develop their sound ability, making learning better for kids who, let's face it, are weaker than their peers in processing sounds.

Although only about 6% of the students exhibited severe phonological awareness problems, including this as an integral part of reading instruction should not be underestimated. These findings indicate that interventions based on identifying letters are insufficient and must target other more complex skills, such as blending and segmenting sounds in a word (Liaqat et al., 2021). Integrating those high-skill sets into reading programs may allow for a broader approach to reaching various learners. This integrated approach improves phonological awareness and promotes a more comprehensive view of the reading process.

In addition to these internal factors, teacher interviews suggested that external variables such as learning environment and teaching methodology, among others, also play a critical role in the development of early reading success. This is commensurate with what the literature reports as required to mitigate reading difficulties (Westwood, 2001; Desta, 2020), including quality teacher-pupil relationships and a supportive curriculum. These challenges have become more pronounced recently due to the COVID-19 pandemic, which has led to deprivation in face-to-face interactions and reading experiences (Widyanuratikah, 2021; Wheeler & Hill, 2021). As educators and politicians seek ways to address these challenges, it is important to develop approaches that lead to powerful and engaging reading experiences in and beyond the classroom. This strategy involves using technology for learning and cooperative learning to improve children's reading skills. Providing such encouraging conditions allows the learner to develop this positive attitude and love for reading beyond the conventional classroom. Furthermore, incorporating literature from a wide range of genres and interactive resources would enhance their paths to literacy to ensure they experience reading as a dynamic and pleasurable activity.

While some lower-grade students show strong independent reading abilities, others in upper grades get frustrated. This evidence proves that age or grade level is not the primary determinant of early reading problems, so treatments should be based on personal requirements rather than only educational level.

Interviews with teachers reveal that the nature of educational activities and teaching strategies significantly influence reading achievement. The leading causes of reading problems are lacking rich learning opportunities and using non-adaptive teaching strategies. While only a small percentage of children have trouble with phonological awareness, many struggle with sentence structure and word meaning, suggesting that linguistic awareness is a crucial indicator of reading comprehension, particularly in difficult texts. While most kids can identify phonemes, they find difficulty combining sounds into syllables or words. This study emphasizes the importance of intentional practice in phoneme blending, which is sometimes disregarded in early reading education.

Early literacy acquisition has been profoundly affected by the COVID-19 epidemic, especially in light of the lack of face-to-face interaction and online learning, which are unfit for students with unique reading requirements. This background should thus be taken into account while developing adaptable intervention strategies. These strategies should focus on engaging students through interactive and multisensory approaches that cater to diverse learning styles. By doing so, educators can create a more inclusive environment that fosters effective reading skills and builds confidence among young learners. Reading problems should be taught as they are, when they are, not according to how many candles are on a birthday cake. As a result, targeted and context-based learning interventions are required to facilitate children's reading skills. Such instruction recognizes each child's unique strengths and needs and nurtures an enjoyment of reading that can trigger a lifetime's interest in curriculum subjects. Personalized approaches can be important to developing successful approaches to literacy and comprehension.

The present study's findings are consistent with the notion that reading intervention programs should emphasize developing phonological awareness skills at word-phoneme and syllable-blending levels and enhance students' reading learning. Schooling teachers' efficient and adaptable literacy instruction strategies are crucial in addressing student reading diversity difficulties.

Further investigations should focus on the teaching and learning situation in early reading regarding students' learning to read and their teachers' teaching. Longer-term, longitudinal studies could also help assess how reading skills develop and how effective interventions are in the long term.

These findings also emphasize the importance of teamwork between teachers, parents, and special education support providers in terms of applying intervention strategies that are timely and suitable for the student's needs. Parental support for children's reading learning at home can facilitate children's phonological language skills in transitioning from face-to-face to online learning amidst the pandemic (Grigorakis et al., 2025). This transition has demonstrated the importance of flexible learning plans and ongoing communication between parents and teachers. As children struggle to adapt to these changes, creating a supportive home landscape will be essential so that reading development and overall academic growth can continue.

The present study endorses making screening tools more sensitive and including a broader range of screens for various dimensions of early high-risk reading (Lyytinen, et al., 2006). With good early identification, targeted help can be given to students who are likely to face reading delays and negative social and emotional effects related to poor reading outcomes. These efforts seek to boost phonological and language strengths and create a

nurturing classroom climate that meets some of the emotional and social needs of students. Tested interventions are how we can prepare young children to cope with the hardships that life might throw their way and ensure the optimal starting place in school for all children, even under adverse conditions.

However, this study has some limitations. The sample size was small, and the coverage area was limited to DKI Jakarta, which did not generally represent society. This limitation might restrict the generalizability of the findings not only to a broader group of participants who are university-educated and mixed culturally. Therefore, the results should be validated by a larger cross-ethnic/regional sample to provide a comprehensive insight into this phenomenon for global purposes.

Future research could investigate how psychological factors, including learning motivation and self-esteem, shape how children acquire reading skills and respond to help. A combined cognitive, linguistic, and affective-based multidisciplinary view will likely result in a comprehensive comprehension of the difficulties children encounter in their attempts to develop early reading abilities. This broad view would highlight children's learning difficulties and help identify effective targeted interventions (including appropriate instruction) to support children's reading acquisition. Combining what we have learned from different fields, the scientific literature for research and teaching can contribute to better strategies for developing reading or learning.

CONCLUSION

This study has shown that early reading problems among elementary school children in DKI Jakarta relate to syllable/word reading more than letter recognition. The lack of deficits in internal processes, including phonological and linguistic awareness, indicates that there are important external contributors (e.g., instructional quality, learning environment, teaching strategies) to early reading acquisition. These results highlight the importance of prioritising phoneme blending, syllable decoding, and linguistic comprehension in a reading intervention, as opposed to letter identification. This shift in focus could lead to more effective reading programs that address the specific challenges children face in this region. By honing in on these areas, educators can better support students in developing the foundational skills necessary for proficient reading. Proficient reading is essential for academic success and lifelong learning. Consequently, investing in targeted professional development for educators will further enhance their ability to implement effective strategies, ultimately fostering a more supportive and enriching learning environment for all students.

This study also illuminates the role of teacher preparation programmes in preparing teachers to respond to varied student needs and implement quality early literacy instruction. Moreover, the compounding effects of the COVID-19 pandemic on learning environments underscore the necessity of flexible, technology-facilitated, home-based reading programs to counteract distractions in early literacy development.

Our study has several limitations: (1) the small sample size and the geographic location of the study site (DKI Jakarta) may have reduced the generalisation of the results. Future research should use a sample with broader cultural and socio-economic diversity and evaluate the long-term effectiveness of early literacy interventions. A study about the effects of motivation and self-esteem on reading acquisition and multidisciplinary influences will enhance the understanding and design of assistance for children with reading difficulties.

Finally, this study has important implications for educators, policymakers, and researchers interested in establishing holistic, evidence-based reading programs that account for both internal and external precursors to learning to read and foster continued literacy growth and academic success.

REFERENCES

- Desta, M. A. (2020). An Investigation into Teachers Practices of Teaching Early Reading and Practical problems in Its Implementation. *Indonesian Journal of English Language Teaching and Applied Linguistics*, 5(1), 97-108.
- Grigorakis, I., Manolitsis, G., Inoue, T., & Georgiou, G. K. (2025). Examining the role of home literacy environment in the growth of morphological awareness from kindergarten to Grade 2. *Journal of Research in Reading*, 1(1), 1–19. <https://doi.org/10.1111/1467-9817.70006>.
- Liaqat, A., Munteanu, C., & Demmans Epp, C. (2021). Collaborating with mature English language learners to combine peer and automated feedback: A user-centered approach to designing writing support. *International Journal of Artificial Intelligence in Education*, 31, 638–679. <https://doi.org/10.1007/s40593-020-00204-4>.
- Lyytinen, H., Erskine, J., Tolvanen, A., Torppa, M., Poikkeus, A. M., & Lyytinen, P. (2006). Trajectories of reading development: A follow-up from birth to school age of children with and without risk for dyslexia. *Merrill-Palmer Quarterly*, 52(3), 514-546.
- Taboer, M. A., Kartadinata, S., Rochyadi, E., & Sunardi. (2019). Assessing Students with Reading Problem in Elementary School: A Case Study in 7 elementary Schools. *Conference: Proceedings of the 1st International Conference on Education Social Sciences and Humanities (ICESSHum 2019)* (pp. 596-600). Padang: Atlantis Press.
- Taboer, M. A., Rochyadi, E., Sunardi, & Bahrudin. (2020). Prediktor Kesulitan Membaca di Sekolah Dasar [Predictors of Reading Difficulties in Elementary School]. *Sekolah Dasar: Kajian Teori dan Praktik Pendidikan*, 182-190.
- Tortorelli, L. S., & Strong, J. Z. (2025). The research-to-practice gap in teaching reading with digital texts: Results from a survey of US elementary teachers. *Journal of Research in Reading*, 1(1), 1–19. <https://doi.org/10.1111/1467-9817.70004>.
- Westwood, P. (2001). *Reading and Learning Difficulties approach to teaching and assessment*. Victoria: The Australian Council for Education Research Ltd.
- Wheeler, D. L., & Hill, J. C. (2021). The impact of COVID-19 on early childhood reading practices. *Journal of Early Childhood Literacy*, 0(0).
- Widyanuratikah, I. (2021, March 30). *Jumlah Anak Sulit Membaca Meningkat Akibat Pandemi [The Number of Children with Reading Difficulties Increased Due to the Pandemic]*. Retrieved January 2023, from [republika.co.id: https://www.republika.co.id/berita/qqs767483/jumlah-anak-sulit-membaca-meningkat-akibat-pandemi](https://www.republika.co.id/berita/qqs767483/jumlah-anak-sulit-membaca-meningkat-akibat-pandemi)