VOLUME 24 NUMBER 2 MAY 2024 ISSN: 1816-336X (Print) 2415-0452 (Online)

Special Issue
Early Grade Reading Development

Bahir Dar Journal *of* Education

COLLEGE OF EDUCATION
BAHIR DAR UNIVERSITY, ETHIOPIA

BAHIR DAR JOURNAL OF EDUCATION
VOLUME 24, NUMBER 2, MAY 2024
(Special Issue)

ISSN: 1816-336X (Print) 2415-0452 (Online)

BAHIR DAR JOURNAL OF EDUCATION

VOLUME 24 NUMBER 2 MAY 2024 ISSN: 1816-336X (Print) 2415-0452(Online)

Special Issue (Early Grade Reading Development)

TABLE OF CONTENTS

Enhancing early grade reading development: A call for education reform and innovation

Reda Darge Negasi (Ph.D.)
Professor, Department of Psychology, College of Education, Bahir Dar University; Lead Guest Editor, Special Issue II, Bahir Dar Journal of Education

Abstract

Welcome to the May issue of Bahir Dar Journal of Education. The present issue is a special issue focusing on the theme "Early Grade Reading Development". In this issue, we present five research articles that examine crucial topics in early-grade reading development. Authored by a total of 13 scholars from four universities in Ethiopia and Norway, the articles provide a comprehensive exploration of the complexities surrounding early-grade reading. They also offer valuable insights into the multifaceted nature of this critical issue and shed light on the various factors that influence early-grade reading development in Ethiopia and beyond.

ARTICLE HISTORY
Received: 15 May, 2024
Accepted: 25 May, 2024

KEYWORDS
Early grade reading; writing skill.

Introduction

The ability to read is a fundamental skill for children, serving as the foundation for their academic growth and independent learning (Antoni & Heineck, 2012; DES, 2011; French, 2013). Proficiency in reading empowers students to excel in all academic endeavors. Developing reading skills, which involve decoding, interpreting, and comprehending written texts, is crucial for academic, social, and economic success. Despite its importance, reading proficiency continues to be a persistent challenge. As many research reports revealed, students in many countries around the world spend several years in school without achieving basic reading skills (MoE, 2011; AIR, 2019).

To address this challenge, a comprehensive strategy is urgently needed. Factors such as inadequate teacher training, limited parental support, and ineffective teaching methods contribute to the issue. Consequently, ongoing research into effective approaches to enhance early-grade reading is of utmost importance.

In its commitment to disseminate impactful research that enhances educational practices and informs policy-making initiatives, the Bahir Dar Journal of Education dedicates this special issue to the development of early-grade reading. In this special issue, we aimed to provide a valuable platform for sharing cutting-edge research that highlights the intricacies of this critical period in a child's educational journey.

CONTACT RedaDargeNegasi reda_darge@yahoo.com

DOI: https://dx.doi.org/10.4314/bdje.v24i2.1

The opening article of this issue explores the influence of orthographic depth on early grade students' reading of words and non-words in Sidaama and English languages. Using a mixed methods approach, the authors (Samrawit Bekele Demissie, Abraha Asfaw Ambaye, and Ingvill Krogstad Svanes) found that students in Sidaama language, with its transparent orthography, demonstrated higher accuracy in both word and non-word reading compared to English, which has a deeper orthography. The results of this study suggest that the orthographic disparities between the two languages posed challenges for students in decoding words and non-words, confirmed by teacher interviews and classroom observations.

Motivated by concerns over low literacy achievement in mother tongue languages, the authors of the second article, i.e., Nigist Gedife Hunegnaw, Elena Tkachenko, and Emilia Andersson-Bakken examine explicit reading instruction in Grade 1 Amharic classrooms in Ethiopia. Using a qualitative case study design, the study found variations in implementation, with modeling, discussion, feedback, and guided practice as the most prominent instructional moves. The content focused primarily on grapho-phonological aspects, with external factors like lack of materials and teacher competence influencing practices. The study provides a descriptive foundation for future research and highlights the need for policy changes and interventions to improve literacy instruction.

The article by Samuel Belayneh Kame, Mulugeta Tarekegne Tsegaye, Mona Evelyn Flognfeldt, and Margareth Sandvik, on the other hand, analyses the 2016 Ethiopian Ministry of Education guidelines for developing and selecting supplementary reading materials. The study finds that the guidelines promote a simplistic view of reading, overlooking the affective dimension. The study argues for an active approach that creates a more engaging textual experience and supports reading development, with implications for teacher training. The findings highlight the need to align policies with current research on the science of reading.

Coming to the fourth article, the author, Chanyalew Enyew Adamu, examines the impact of word attack instructional strategies in improving Grade 6 students' reading skills. Using a mixed methods approach, the study found that the implementation of meaning attack and visual attack strategies significantly enhanced students' reading performance, self-confidence, motivation, and participation. While the quantitative results showed improvement in reading, the qualitative findings obtained from observations and interviews confirmed the positive impact of the intervention. The findings indicate that incorporating word attack strategies into reading instruction can significantly enhance students' reading abilities and overall literacy experiences.

Finally, in the fifth article, Etagegne Gedefaw Getahun and Getachew Endalamaw Asefaw investigate the impact of the interactive writing instructional method on the Amharic writing skills of hearing-impaired students. Using a single-group experimental design with a small sample of participants selected through a comprehensive sampling technique, the study analyzed pre-and post-test data with a paired sample t-test, revealing a significant improvement in writing ability when the intervention was implemented. The findings suggest that the interactive writing instructional approach promoted the Amharic writing skills of students with hearing impairment.

In sum, the authors of the articles featured in this special issue emphasize the need for a multifaceted approach to early grade reading development in Ethiopia. They also came up with evidence-based recommendations to address the challenges posed by orthographic

depth, improve teacher training and instructional materials, and promote a holistic understanding of reading development aimed at empowering early grade students to become confident and competent readers, equipped to excel in their future academic pursuits.

As we reflect on the findings presented in this issue, we are reminded of the urgent need for policy changes and practical interventions aimed at enhancing teachers' competence and improving the provision of adequate literacy instructional materials. We hope that this special issue will contribute to a renewed focus on early grade reading development in Ethiopia and inspire educators, policymakers, and researchers to work together towards creating a more literate and equitable society where all children have access to quality education.

References

AIR- American Institutes for Research. (2019). *Early grade reading assessment (EGRA) 2018 end line report. USAID reading for Ethiopia's achievement developed monitoring and evaluation.* https://2017-2020.usaid.gov/sites/default/files/documents/1865/Ethiopia-Early-Grade-Reading-Assessment-2018.pdf

Antoni, M., & Heineck, G. (2012). *Do literacy and numeracy pay off? On the relationship between basic skills and earnings.* https://docs.iza.org/dp6882.pdf

DES- Department of Education and Skills. (2011). *Literacy and numeracy for learning and life: The national strategy to improve literacy and numeracy among children and young people 2011- 2020.* https://assets.gov.ie/24521/9e0e6e3887454197a1da1f9736c01557.pdf

French, G. (2013). Early literacy and numeracy matters. From *Journal of Early Childhood Studies* (OMEP), 7, 31-49. https://arrow.tudublin.ie/cgi/viewcontent.cgi?article=1065&context=aaschsslarts

MoE- Ministry of Education. (2011). *Ethiopia's education system presented for the international literacy day.* https://www.brookings.edu/wp-content/uploads/2012/04/Ethiopia_Fuad_Ibrahim.pdf

The influence of orthographic depth on early grade students' reading of words and non-words in Sidaama and English

Samrawit Bekele Demissie
Ph.D. Candidate and Staff Member, Department of Linguistics, College of Humanities, Language Studies, Journalism and Communications, Addis Ababa University

Abraha Asfaw Ambaye (Ph.D.)
Associate Professor, Department of Curriculum and Instruction, College of Education and Behavioral Studies, Addis Ababa University

Ingvill Krogstad Svanes (Ph.D.)
Associate Professor, Department of Primary and Secondary Teacher Education, Faculty of Education and International Studies, Oslo Metropolitan University

Abstract

The purpose of this study was to analyse word and non-word reading among early grade students of Sidaama and English, with a specific emphasis on the difference in orthographic depth between the two languages. The research has a convergent mixed methods design applying reading skills tests, interviews with teachers and classroom observations. The results of quantitative and qualitative analysis showed that student scores in Sidaama, which has a transparent orthography, indicated greater accuracy in both word and non-word reading compared to English with its deep orthography. Overall, students read words more correctly than non-words in both languages. Especially in English, the scores for non-words were very low. The results from the reading tests suggest that orthographic differences between the two languages caused challenges for the students when decoding words and non-words. The teachers confirmed the influence of these challenges in interviews, and students were observed struggling to read in class.

ARTICLE HISTORY
Received: 31 October, 2023
Accepted: 20 May, 2024

KEYWORDS
Early grade reading, orthographic depth, word reading, non-word reading

Introduction

Reading skills development is critical and determines children's readiness to learn independently and facilitates learning in various subjects (Antoni & Heineck, 2012; DES, 2011; French, 2013). The situation in Ethiopia, however, has failed to show improvements despite research evidence since 2010 and persistent efforts to redress the problem (AIR, 2019). Ample evidence exists that shows the low reading ability of early grade children, and there is a growing concern among educators, but a strategy to redress the problem is not yet well developed (AIR, 2019; Abraha, 2024). This study investigated a possible explanation with regard to learning effectiveness: the contribution of orthographic depth in supporting or

CONTACT Samrawit Bekele Demissie samrawit306@gmail.com, samrawit.bekele@aau.edu.et

DOI: https://dx.doi.org/10.4314/bdje.v24i2.2

hindering the transfer of learning in reading ability development by examining Sidaama[2] and English as contextual cases.

In alphabetic languages, learning to read is dependent on students' understanding of connecting letters to sounds and putting them together for words. A large number of students acquire this knowledge in two or more languages simultaneously. In Sidaama region, students start learning to read in their mother tongue, Sidaama, and in English (a foreign language) simultaneously in grade 1. Sidaama and English have a similar base script, Latin, but are different in their orthographic qualities. Sidaama has 34 graphemes in total, whereas English consists of 26 graphemes. Twenty-six of the graphemes of the Sidaama alphabet correspond to the twenty-six letters of the English alphabet. However, all of the Sidaama vowels and some consonants are different in the way they are pronounced in English. Furthermore, Sidaama is alphabetic and the correspondence between the symbol and the phonemes is one-to-one, while English is not claimed to be phonemic since there is variation between grapheme and its phonemic counterparts. For example, the letter 'a' has different possible sounds in English while it always sounds like the /a/ in any Sidaama word. Students are thus vulnerable to transfer problems (from one language to the other) when learning to read (Anbessa, 2019; Yri, 2004).

Whether students are able to transfer decoding knowledge from one language to another, called cross-linguistic transfer, depends on the linguistic relation between the two languages and the consistency of the alphabetical principle within each language (Durgunoğlu, 2002; Melby-Lervåg & Lervåg, 2011). The reliability of print-to-speech correspondences, called *orthographic depth*, reveals a clear effect upon reading acquisition (Aro, 2004). A mismatch between the orthographies in the taught languages, the degree of obstruction, and inconsistencies in sound–symbol correspondence may complicate teaching and learning in early grade reading, which causes poor performance among children in early grades (Frost & Katz, 1992). When we observe the sound-symbol relationships between the two target languages, English is notorious for its association of multiple sounds with a single letter, described as having high orthographic complexity. In contrast, each letter in the Sidaama alphabet has an equivalent phoneme. Regardless of these differences, in both languages learning to read requires the knowledge that each letter (or group of letters) in a word can be associated with a particular sound. Students' graphophonemic awareness (Ehri & Soffer, 1999) and how they match graphemes to phonemes is thus a major foundational skill for reading words in both languages. In addition, graphophonemic awareness is an important predictor of further reading development (Harrison et al., 2016).

The current study offers several useful insights in this regard. In brief, the findings envisage improving teacher instruction, thus helping students when struggling with making the connection between the printed word and its oral counterpart. This difficulty of decoding words is believed to discourage children's persistence in the earliest stages of reading instruction, which may in turn lead them to abandon their attempts at learning to read.

[2] Sidaama is spoken by the Sidaama people in south-central Ethiopia. Anbessa (2000) and Kawachi (2007) refer to the language and the people as 'Sidaama'. The language is also called Sidaamu Afoo (literally: Sidaama's Mouth), and Sidamigna/Sidaminya (Amharic) (Kawachi, 2007). Based on recent literature, this article uses Sidaama to refer to the language and the people.

Furthermore, the recommendations of the study will help policymakers and teaching-learning material developers make informed decisions and interventions in the areas under discussion.

Statement of the Problem

In Ethiopia, it is widely observed that there are challenges related to the quality of learning. In this regard, the quality of early grade reading requires close attention. In the Sidaama region specifically, consecutive reports have confirmed decline across the years in learning outcomes in the early grades of Sidaama children (Piper, 2010; AIR 2016, 2019; RTI, 2015). An early grade reading assessment (EGRA) of grades 2 and 3 children from seven mother tongue languages in Ethiopia revealed that 34% of grade 2 students were unable to read even a single word, and specifically, 69.2% of Sidaama children were unable to identify a single sound or letter in words correctly (Piper, 2010).

Different factors can be mentioned as causes of the poor performance of children in early grades. Lack of effective teacher training, poor parental support for children's education in their reading, and problems related to the curriculum are some of the major factors (Ligembe, 2014; Piper, 2010; Solomon 2014). In addition, inconsistencies in sound-symbol correspondence, which hinder teaching and learning in early grade reading, lead to poor performance (Aro, 2004; Yri, 2004). Therefore, the current study aimed at examining students' reading of words and non-words in Sidaama and English in light of the difference in the orthographic depth between the two languages. We asked the following research question: How might orthographic depth influence grade 2 students' reading of words and non-words in Sidaama and English in two schools?

Theoretical Framework

Orthographic depth

This study builds on the theory of reading across languages which is mainly concerned with orthographic depth and how it affects students' reading processes (Barnitz, 1978; Katz & Frost, 1992). The characteristics of orthography and the features of reading are inherently linked. According to Schmalz and colleagues (2015), the concept of orthographic depth is twofold, dealing with both the complexity of correspondences between grapheme and phoneme ("print-to-speech") and the (un)predictability of these correspondences. Morphological and phonological transparencies are the two manifestations of the word 'depth' (Schmalz et al., 2015). In this study, we address the phonological aspects and the correspondence between sounds and letters in Sidaama and English and how these factors influence the reading of words and non-words.

In alphabetic orthographies, the degree of transfer between first language (L1) and second language (L2)/foreign language in students' reading can be associated with the complexity of letter and sound correspondence (Schmalz et al., 2015). Alphabetic orthographies may be classified as shallow/transparent or opaque/deep according to the transparency of their letter–sound correspondence. In a shallow, or transparent, orthography, there is a one-to-one correspondence between the phonemes and graphemes. Each letter represents one sound and vice versa. In opaque, or deep, orthographies, however, this relationship is complex and irregular. The same phonemes can be found with different

graphemes in words, and same graphemes can have multiple phonemes (Rey & Schiller, 2005). For instance, an 'a' in English is pronounced differently in the words 'father', 'cat' and 'call'. Frost et al. (1987) illustrated the difference between orthographies when comparing English and Serbo-Croatian. Serbo-Croatian has a shallow orthography where a consistent grapheme-phoneme correspondence occurs, in which the phonology of the word is directly represented in the orthography. In contrast, the grapheme-phoneme relation is complex in English by which the spelling system represents both the phonology and the morphology. Thus, the deep orthography of English presents a substantial challenge to many L2 learners because of its high degree of irregularity (Miller, 2019).

The challenge described by Frost et al. (1987) applies to Sidaama students. The 34 letters of the Sidaama alphabet have equivalent phonemes, and Sidaama vowels have only one sound each (e.g. the letter 'a' always sounds like the 'a' in 'father'). Sidaama has 28 consonant phonemes. In the language, gemination and vowel lengthening are phonemic (Anbessa, 2000; Kawachi, 2007). The maximum number of consonants that can occur successively in Sidaama is two, and these clusters appear inter-vocalically (Kawachi, 2007). Regarding vowels, Sidaama has a five-vowel system. These vowels may occur short (/i/, /e/, /a/, /o/, /u/) or long (/ii/, /ee/, /aa/, /oo/, /uu/) (Anbessa, 2000; Kawachi, 2007). Words in Sidaama end in vowels (Kawachi, 2007). In contrast, English has 26 letters but approximately 44 phonemes. Many English letters can correspond to more than one sound; for example, the letter 'c' can correspond to the sound/phoneme [k] as in 'cat' and also the sound/phoneme [s] as in 'certain'. On the other hand, many sounds can be represented by more than one letter/symbol. For example, the sound [k] can be represented by 'c', 'k', 'q' or 'ch'. Besides, English has many consonant digraphs, such as 'th', 'sh', 'ch', and 'ck', in which two graphemes are used to represent a single sound. These one-to-many and many-to-one relationships between graphemes and sounds in the orthography of English make decoding words especially difficult for learners whose first language has a shallower orthography and, thus, more regular one-to-one relationships, as in the case of Sidaama. The differences in the nature of the languages, combined with the fact that children learn to read in the two languages simultaneously, starting from grade 1, may also cause students to mix features from the two languages when reading words.

Word and non-word reading

When reading a word, a student may either sound out the word, letter by letter, or recognise the word through a more direct process, building on orthographic, phonological, and/or semantic knowledge (Coltheart, 2006). In alphabetic orthographies, efficient word reading arises from children's ability to decode printed words, that is, the ability to associate graphemes with their corresponding phonemes and to blend the sounds into accurate word pronunciations. Word and non-word (also referred to as 'pseudo word' or 'invented word') reading skills are indicators of fluent word-level reading (Caravolas, 2018) though they differ in their level of consistency. Non-word reading is often used when assessing students' decoding ability. They are word-like in their structures, but they have no meaning (Caravolas, 2018). Word reading, however, refers to fluent and accurate reading of words but may also include students' prediction of the word or sight word reading (Ehri, 2005). Based on this, to

examine the influence of orthographic depth in reading, the researchers measured student reading of both words and non-words in this study.

Methods

Research Design and Sampling

To answer the research question, a convergent mixed methods design was employed. The first part in the mixed methods process began with preparation and implementation of the reading skills tests. The second step was a qualitative phase aimed at developing more complete understanding of the situation from data gathered through classroom observations and interviews with teachers. The poor performance of the children in the early grades, especially among Sidaama children, drew the researchers' attention to Hawassa city since the language is used there. Two schools were selected based on a combination of convenience and purposive sampling (Etikan et al., 2016). The schools taught early grade reading. They were both Sidaama schools, and English was taught as a subject. Above 90% of the students were native speakers of Sidaama. In addition, the first author had been to the schools for related research work. So, it was found easy to build rapport with the school community and gather the necessary data without challenges, which helped us wisely use time and matters related to the logistics of fieldwork.

All the students selected for the reading tests had Sidaama as their first language. Both schools had four sections of grade 2, each with 45 students, 180 in total. Two sections from each school were randomly selected. From those sections, 15 students in the age group of 8-15 years were systematically selected with a fixed periodic interval. In the first school, the 90 students were given a number. We then chose a random number for the starting point. Our starting point was 1 with the sample interval of 6. Of the 15 students, 8 were female and 7 were male. A similar routine was followed at the second school, ending up with 7 female and 8 male students. These 15 male and 15 female grade 2 students took both the Sidaama and English reading tests.

In addition to the students, four teachers participated in the study, two from each school. They each had a minimum of 5 years of teaching experience. They were also native speakers of Sidaama. Two of them were Sidaama teachers, and the other two were English teachers. The English teachers had taught Sidaama in other schools in the same grade; they thus had experience in teaching both languages.

Four of these teachers' classrooms were selected for classroom observation to obtain a deeper understanding of our research question. The teachers were willing to let us videotape their lessons and to be interviewed. We treated the reading skills tests as our main data source, and classroom observations and teacher interviews as secondary data sources. Below, we provide an in-depth description of the three data collection tools: the reading skills tests, classroom observation and interviews.

Reading Skills Tests

The reading task for this study was administered based on the EGRA format recommended for measuring developmental indicators of reading ability (Piper, 2010; RTI,

2015). In each test, the students were tested on both Sidaama and English measures, prepared based on the objectives of the research and curriculum standards. A total of 60 test measures were administered. The two tests were similar with regard to structure and content, except for the differences caused by the nature of the two languages under investigation. For instance, gemination in Sidaama does not exist in English since it is a stress language. Vowel lengthening could be another example, which also exists in Sidaama, but seldom in modern English. In the word reading tasks, both the words and non-words thus differed because of the language difference.

In the reading tests, the students were asked to identify and read monosyllabic and bi-/multisyllabic words and non-words. Here, to familiarise the students with the task, they were asked to repeat each word/non-word they read. The students were given limited time for each task (in seconds) because the researchers wanted to gain knowledge both about the word the student was asked to read and about the student's possible mistakes and confusion in reading. The following section recounts the test measures of the word and non-word reading tasks in both languages.

Word Reading in Sidaama and English

To measure students' decoding and word recognition skills, unrelated word reading tests are important (AIR 2016). Two assessors (the first author and a research assistant with Sidaama as his first language) presented students with a sheet listing 40 unrelated words in English and Sidaama. The words were selected from the students' textbook and were the most regular ones in the textbook for second grade. In the word reading tasks, the assessors first read the word lists twice aloud in a clear voice. After that, they let the student do the task. The students were asked to spell the words and then read them in a specific order. The word list was mixed in order of difficulty.

Non-word Reading in Sidaama and English

The non-word reading test measured the decoding ability of the children. Primarily, it is useful to avoid sight recognition of words from past experience (Piper, 2010). In this task, the assessors presented students with a sheet listing 25 invented non-words, which was the same number as in the EGRA test. In the same way as in the word reading tasks, the assessor first read the word list twice aloud. After that, the assessors let the students do the task. The students were asked first to spell the non-words and then to read them in a specific order.

Classroom Observations

Classroom observations were carried out to see students' reading in a more authentic setting. We observed one class of English and one class of Sidaama in each school. Observations were arranged based on the schedule of the lessons. The observations were made for two weeks. One classroom observation was limited to one lesson. In the first school, the time allocated for one lesson was 35 minutes, and in the second school, the lesson lasted for 40 minutes. Schematically, the observation procedure can be shown as follows:

School 1	English	1 observation (35 min)	2 lessons
	Sidaama	1 observation (35min)	
School 2	English	1 observation (40 min)	2 lessons
	Sidaama	1 observation (40 min)	
		Sum	4 lessons

To allow appropriate observations of student and teacher classroom practices across the two languages, we used an observation checklist consisting of 16 questions (see Appendix I). The questions were not standardised, as the structure and content of the questions were prepared based on the specific interests of this study. The observation checklist was reviewed by language and curriculum and instruction experts to ensure appropriateness in data collection. Notes were taken following the checklist, which was prepared before the fieldwork. In addition, the classroom observations were videotaped. Videotaping was chosen in order to look carefully at the true situation to increase our understanding of student reading in both languages. The videotapes also gave us the opportunity to watch situations repeatedly when analysing the material.

Interviews

After the observations, the four teachers were interviewed. The intention of the interviews was to look at the practical and additional information from the teachers about the influence of orthographic depth on the students' reading of words and non-words in the two languages. The teachers were interviewed based on questions provided in an interview guide, which was forwarded to the teachers. The interview guide had two parts. The first part consisted of general information about the teacher's background, and the second part comprised questions that helped in understanding the research question of the study. The interviews were audiotaped (following consent from each teacher) to allow full engagement without worrying about taking notes. All interviews were held in convenient, quiet settings and were 25–30 minutes in length. They were carried out in Amharic since all the interviewed teachers and the interviewer communicated well in the language. As part of the analytic process, the interviews were later transcribed.

Quality Control

Both the qualitative and the quantitative data were cross-checked after all the data had been collected. For the reading tests, the data collectors checked the students' score sheets, whether each student's tests in English and Sidaama were parallel following their code and name written on the test sheets. The data collectors checked each examination paper at least twice, for instance, to check that the papers were not mixed without codes, and the data collectors prepared the data for entry. The data from the interviews and observations were checked to make sure that the data planned for collection had been collected. In addition, the video recordings of the observations and the audio recordings of the interviews were checked to make sure that the videos were viewable and the audio recordings were audible. Finally, for the quantitative data, the students' scores in each reading test were coded and entered into

a database. The qualitative data from the observations and interviews were filed in different folders by language and content, and were prepared for transcription and translation.

Data Analysis

The researchers collected and analysed the results of the quantitative data, then used the data from the classroom observations and interviews to support and explain the data obtained from the quantitative reading skills tests. For the quantitative data, the test results were listed under five categories. These tests were standard tests taken from the EGRA test (AIR 2016). However, structural and content-related revisions were made based on the specific interests of the study. In each test, one student was tested on both Sidaama and English measures at a time. In the first category, the assessor marked the results with a slash (/) if confusions between L1 and L2 were observed while students read the words. In parallel, the other data collector circled the word if students read it incorrectly. In the third category, if students read the words incorrectly, the assessor marked that as well. In the fourth category, the assessor wrote a text on the exam paper if students were able to identify the letters of the words but only read them in their native language. Sound omissions were also recorded where students omitted a sound while reading words. The assessor also marked if students read silent sounds aloud in their word readings. The assessor could stop the test if the student made four consecutive errors. The test result in such cases was listed under the 'cannot read' category in the test measurement. Afterwards, the collected data were cleaned, coded, and entered into Statistical Packages for Social Sciences (SPSS) software. Data analysis was performed using the same software (SPSS).

Qualitative analysis was also performed based on the information obtained from classroom observations and teacher interviews. The video recordings were first organised in different groups, i.e. depending on the school where the data were collected and the language of the lesson. Then, the data were transcribed following the arrangement made previously. The audio recordings from the teacher interviews, like the classroom observations, were first arranged following the type of lesson and the school. Then, the arranged data were transcribed depending on the source of the data. That is, the data for the English classes were categorised in one group, and the Sidaama data were categorised in another group.

Reliability and Validity

Reading tests, teacher interviews and classroom observations were employed to triangulate the data from the participants, strengthening the quality of the study and avoiding bias in the final results. The reading tests were tested for reliability to ensure the internal consistency of the measurements. We used the statistical software (SPSS version 25), and Cronbach alphas for Sidaama and English were found to be 0.78 and 0.82, respectively. This indicates that the tests were highly reliable and reliable, respectively, according to the literature (Cohen et al., 2007).

For validity purposes, observation protocols and interview guides were reviewed by two experts, one in language and another in curriculum and instruction, to ensure appropriateness for relevant data collection. This increased the possibility of valid interpretations based on the material (Creswell & Miller, 2000). To cross-check the

information across the two data collection instruments, the same teachers who participated in the observations were selected for individual interviews. The use of video made it possible to study the recordings repeatedly to ensure the validity of the analyses (Creswell & Miller, 2000). To make the observer effect as small as possible, the camera was placed in the back of the classrooms (Blikstad-Balas, 2017) to create a comfortable environment for the students and teachers. In addition, the placement was important to capture whole class interactions. We have tried to counter the observer's paradox (Labov, 1972) by not videotaping the test situation itself, however still trying to gather rich data from different sources and analyse them systematically, to insure the quality of the study.

Ethical Considerations

The schools' head teachers were informed regarding the purpose, objectives, and methods of the study. Moreover, both the students and the teachers were informed about the study and afterwards agreed to participate in it. In other words, informed consents were obtained before starting data collection in all cases.

Results

This section presents the results of the reading skills tests of words and non-words in Sidaama and English. The word reading tasks included 40 unrelated words, while the non-word reading tasks had 25 non-words. The descriptive results from the reading tests are supported by qualitative findings from teacher interviews and classroom observations to obtain a deeper understanding of how orthographic depth in the two languages may influence students' reading of words and non-words.

Sidaama Word Reading

Table 1 below presents a summary of the students' reading of words in Sidaama. Scores were recorded under eight categories: 'correctly read', 'incorrectly read, 'confusingly read with L2', 'correctly identified the letters but read with L2', 'sound omission', 'gemination reading error', 'vowel lengthening reading error', or 'cannot read'.

Table 1

Sidaama word reading

Sidaama Word	Correctly read (%)	Incorrectly read (%)	CIL but RWES* (%)	Confusing with Eng. (%)	Sound omission (%)	GEM_RE** (%)	VL_RE*** (%)	Can't read (%)
gusso	50	13.3	3.3	23.3	-	-	-	10
umo	73.3	-	3.3	13.3	-	-	-	10
Kai	76.7	3.3	3.3	3.3	-	3.3	-	10
qaaqqo	76.7	3.3	6.7	-	-	-	3.3	10
soodo	76.7	3.3	6.7	3.3	-	-	-	10
Ille	60	3.3	6.7	16.7	-	3.3	-	10
shota	60	3.3	6.7	3.3	16.7	-	-	10
mule	70	3.3	6.7	10	-	-	-	10
gansho	66.7	6.7	10	3.3	3.3	-	-	10

Sidaama Word	Correctly read (%)	Incorrectly read (%)	CIL but RWES* (%)	Confusing with Eng. (%)	Sound omission (%)	GEM_RE** (%)	VL_RE*** (%)	Can't read (%)
kaashsho	66.7	-	6.7	3.3	3.3	3.3	6.7	10
hocco	63.3	3.3	10	13.3	-	-	-	10
u'ma	76.7	3.3	6.7	3.3	-	-	-	10
ninke	80	3.3	6.7	-	-	-	-	10
aguri	76.7	3.3	10	-	-	-	-	10
hando	80		10	-	-	-	-	10
woga	70	6.7	6.7	6.7	-	-	-	10
Ane	80	-	6.7	3.3	-	-	-	10
Haameelo	73.3	6.7	6.7	3.3	-	-	-	10
abbi	80	3.3	6.7	-	-	-	-	10
meicho	70		6.7	10	3.3	-	-	10
duna	70	6.7	10	3.3	-	-	-	10
xure	70	3.3	6.7	10	-	-	-	10
quuphe	76.7	-	6.7	3.3	3.3	-	-	10
buko	80	3.3	6.7	-	-	-	-	10
Ula	80	-	6.7	3.3	-	-	-	10
dara	76.7	6.7	6.7	-	-	-	-	10
qoropho	76.7	3.3	6.7	-	3.3	-	-	10
qola	80	3.3	6.7	-	-	-	-	10
leelli	76.7	3.3	6.7	3.3	-	-	-	10
angha	80	3.3	6.7	-	-	-	-	10
kuula	76.7	3.3	6.7	3.3	-	-	-	10
seekka	73.3	-	6.7	10	-	-	-	10
goola	83.3	-	6.7	-	-	-	-	10
giira	83.3	-	6.7	-	-	-	-	10
ishine	83.3	-	6.7	-	-	-	-	10
raacha	73.3	3.3	6.7	6.7	-	-	-	10
Waa	80	-	6.7	3.3	-	-	-	10
keere	80	-	6.7	3.3	-	-	-	10

Note. *The child identified the letters correctly but read with English sounds, ** Gemination reading error, *** Vowel lengthening reading error

As indicated in Table 1, the frequency distribution for familiar word reading in Sidaama indicates that 50%–83% of the students identified words correctly. Most of the words (85%) were identified by 70% or more students, while 15% of the words were identified by 50%–69% of the students. Regarding the incorrectly read words, nearly half of the words were incorrectly read by the students; however, different scores were recorded under each word. The word read incorrectly most frequently was 'gusso', incorrectly read by 13.3% of the students. A few students (3.3%–10%) were able to correctly break the words down into individual sounds but were not able to decode and read them in Sidaamu, rather they read the words based on a sound in the foreign language, which is English.

The frequency distribution also illustrates that nearly half of the words were confusingly read by 3.3%–23.3% of the students. The word 'gusso' seemed to be the most difficult one, as 23.3% of the students were confused by it, followed by 'ille' (16.7%), 'umo' (13.3%), 'hocco' (13.3%), and 'mule', 'meicho', 'xure' (10%). Unlike the previous score (able to correctly break the words down into individual sounds in the target language but unable to decode and read the words in Sidaama), in this score the students confusingly read

the individual sounds as well as decoded the whole words in English. For example, students read the word 'gusso' like /dʒisso/, 'ille' as /ɛlle/, 'umo' as /jumo/, 'hocco' as /hotʃʿtʃʿo/, and 'xure' as /sorre/. Most of the words under this score started with letters that have different sounds in Sidaama and English.

Some of the students also made sound omission errors in a few (15%) words. Here, students made reading errors with words containing digraphs in initial, medial or final position. The word 'shota' was the one that most (16.6%) students made a sound omission error with. Here, the students read the word's initial digraph sound /sh/ separately as 's' and 'h', consequently reading the word as */hoota/~ soota*, which is not correct. This omission error was also observed in reading other digraphs too. Concerning the scores under the last two categories, only small numbers were recorded. Only one student committed gemination (3.2%) and two students' vowel lengthening (6.4%) errors, respectively, in this task type. A few (10%) students were unable to decode and read words in Sidaama at all and were recorded as 'cannot read'.

Sidaama Non-word Reading

Table 2 below describes the students' reading of Sidaama non-words. For these tasks, scores were recorded under six categories; these were 'correctly read', 'incorrectly read', 'confusingly read with L2', 'correctly identified the letters but read with L2', 'sound omission', and 'cannot read'.

The frequency distribution for non-word reading tasks in Sidaama shows that 60%-80% of the students correctly identified the non-words in the list. The result showed some decline in comparison to the results for word reading in the language. Thus, according to the frequency distribution, most (60%) of the students correctly read 70% or more of the non-words, while the rest of the students (40%) incorrectly read 50%-69% of the non-words used in the reading skills test.

Table 2

Sidaama non-word reading

Sidaama Non-word	Correctly read (%)	Incorrectly read (%)	CIL but RWES (%)*	Confusing with English (%)	Sound omission (%)	Can't read (%)
woka	60.0	6.7	6.7	13.3	-	13.3
dagi	70.0	10.0	6.7	-	-	13.3
aluma	73.3	6.7	6.7	-	-	13.3
xagu	60.0	10.0	6.7	3	-	13.3
moyo	66.7	13.3	6.7	-	-	13.3
shawi	63.3	3.3	6.7	3.3	10.0	13.3
fama	70.0	10.0	6.7	0	-	13.3
mutte	73.3	3.3	6.7	3.3	-	13.3
lesi	70.0	0	6.7	/10.0	-	13.3
mulina	66.7	13.3	6.7	0	-	13.3
naani	76.7	3.3	6.7	0	-	13.3
lexoo	66.7	6.7	6.7	2	-	13.3
oka	76.7	3.3	6.7	0	-	13.3
efi	63.3	0	6.7	16.7	-	13.3
mita	66.7	6.7	6.7	2	-	13.3

Sidaama Non-word	Correctly read (%)	Incorrectly read (%)	CIL but RWES (%)*	Confusing with English (%)	Sound omission (%)	Can't read (%)
musa	73.3	6.7	6.7	0	-	13.3
haawe	73.3	3.3	6.7	3.3	-	13.3
sidu	63.3	13.3	6.7	3.3	-	13.3
liji	73.3	3.3	6.7	3.3	-	13.3
olere	80.0	0	6.7	0	-	13.3
nala	70.0	6.7	6.7	3.3	-	13.3
ooni	76.7	3.3	6.7	0	-	13.3
fikulo	73.3	6.7	6.7	0	-	13.3
kola	76.7	3.3	6.7	0	-	13.3
lokki	24/80.0	0	6.7	0	-	13.3
						13.3

Note. * Correctly identified the letters but read with English sounds

Regarding the students' scores in the incorrectly read set, some (3.3%) of the students incorrectly read the non-words listed in the test. A small number (6.7% for each non-word in the list) of students correctly broke words into individual sounds but could not decode them in the first language and pronounced them with the sounds in the second language. The sound omission error was made by 10% of the students, and this error was observed for only one word starting with a digraph sound ('shawi').

In the confusingly read set, the frequency distribution shows that nearly half of the words were confusingly read with L2 by a small number of students. Here, non-words such as 'woka' (13.3%), 'efi' (16.7%), and 'lesi' (10%) were among the most frequently observed in this set. In all, 60% of the words were confusingly read by the participating students. The scores show a decrease compared to the confusion rate in the word reading task in Sidaama. In this set, non-words that the students were most often confused by were 'gax' (46.7%), 'kib' (20%), 'wix' (20%), 'tat' (13.3%) and 'dit' (13.3%). As in the previous tasks for word reading, most students were confused in reading letters that had a common grapheme but different pronunciation in L1 and L2.

When asked about the students' reading competence in the interviews, both teachers of Sidaama stressed that the low performance of students regarding letter identification could result in failure in developing higher level skills such as word reading, oral reading fluency, and comprehension skills. The teachers were asked if they thought student confusion in segmenting and reading words in Sidaama was due to the fact that English and Sidaama share the same alphabet. They were also asked in more detail if they could explain their classroom practices when such confusions occurred. To these questions, Teacher 1 responded (a translation from Amharic) as follows:

> Yes, there are only a few students that are good at reading words. While most are struggling, I think sometimes students face confusion while segmenting and decoding words, but it is very rare for Sidaama natives. Because, since they are native speakers of the language, if they are good at identifying the sounds in the words, they performed the task easier. However, this problem is observed in the non-natives. English is given as a subject in this grade level, and they have been taught the language since grade 1, so since L1 and L2 share common letters, students most of the

time mix the letters and the sounds between the languages they are taught. This creates confusion while they are reading words in the second language.

To the questions above, Teacher 2 from the other school reflected similarly. The quote below, a translation from Amharic, shows Teacher 2's opinion:

> For Sidaama native speakers, I think this is not a problem because, in the language, the letters and sounds have a consistent relationship. This means that any sound in Sidaama has the same sound across all words in the language, regardless of the position they occur in. But sometimes, while they [the students] are practising blending and segmentation tasks, the second language interference is observed. In this task, students who are performing the basic tasks, especially in the letter name identification task, performed better in phoneme segmentation and word reading tasks. But in general, while we see students' performance in this task at the targeted grade level, the struggling readers are higher in number than the good performers.

To conclude, for the interview question above, the two mother tongue teachers stressed that one problem causing students' confusion in segmenting and reading words in Sidaama was due to the fact that English and Sidaama share the same alphabet. However, they stated that if students are good at identifying the letters, they can easily read the words in the language.

In the classroom observations, the researchers observed word reading tasks were practised. The researchers observed that when students were asked by the teachers to read words individually, they struggled to decode the words correctly. Also, interferences between L1 and L2 were observed. In the same way as the other tasks discussed previously, the students replied to questions in chorus, which made it challenging to observe individual student's reading. Despite that, the researcher managed to capture signs of influence of orthographic depth in students' reading of words in the two languages. Some confusion was encountered, as we can see in the following student-teacher conversation. In the conversation, the teacher gave a chance to the student to read and requested others to listen to him. The student read:

> "Beettu kun**e**….kun**e**…." …."kun**i**"
> [The teacher interrupts him and revises the last word 'kun**e**' as "kun**i**". The student starts reading again.]
> "Beettu kuni heerannohu Sid**ee**mu."
> [Again the teacher interrupts the student and edits: "Sidaamu". Then the student took the correction and read the sentence correctly.]

As we can see, there was confusion in pronouncing some words. For example, for the word 'kuni', the student used the English letter 'e' instead of the Sidaama letter 'i'. Also in the word 'Sidaamu', the student pronounced 'a' like 'a' as an English letter, instead of Sidaama 'aa'. The interview responses of the interviewed teachers also revealed this fact. The teachers witnessed that there were letters that were too confusing for the students to read because the letters shared similar pronunciations in L1 and L2. The teachers said that the letters 'e' and 'i' were good examples in this regard. This means the letter 'i' in Sidaamu is pronounced like 'e' in English.

English Word Reading

Table 3 below presents the frequency distribution of the students' English (L2) word reading. For this task, students' scores were recorded under seven categories: 'correctly read', 'incorrectly read', 'confusingly read with L1, 'correctly identified the letters but read with L1', 'sound omission', 'silent sound pronunciation', and 'cannot read'. As compared to the subtests under the word/non-word reading tasks in Sidaama, these results show a decline and a much higher number of students who were confused because of their first language.

Table 3

English Word Reading

English Word	Correctly read (%)	Incorrectly read (%)	CILbut RWL1*(%)	Confusing with L1 (%)	Sound omission (%)	Silent sound pronunciation (%)	Can't read (%)
go	30.0	13.3	13.3	33.3	0	0	10.0
animal	20.0	13.3	16.7	40.0	0	0	10.0
find	20.0	20.0	23.3	26.7	0	0	10.0
up	16.7	13.3	13.3	60.0	0	0	10.0
come	30.0	10.0	16.7	16.7	0	0	10.0
help	30.0	26.7	13.3	20.0	0	0	10.0
two	53.3	20.0	16.7	0	0	0	10.0
run	26.7	20.0	16.7	26.7	0	0	10.0
see	50.0	10.0	16.7	13.3	0	0	10.0
down	50.0	10.0	16.7	13.3	0	0	10.0
red	56.7	13.3	16.7	3.3	0	0	10.0
and	23.3	6.7	16.7	43.3	0	0	10.0
play	40.0	13.3	20.0	16.7	0	0	10.0
big	33.3	20.0	16.7	20.0	0	0	10.0
you	33.3	23.3	16.7	16.7	0	0	10.0
chair	23.3	20.0	13.3	13.3	20.0	0	10.0
man	53.3	10.0	20.0	60.7	0	0	10.0
when	46.7	13.3	16.7	10.0	3.3	0	10.0
now	50.0	13.3	13.3	13.3	0	0	10.0
under	30.0	6.7	16.7	36.7	0	0	10.0
please	13.3	23.3	13.3	36.7	0	0	13.3
like	30.0	16.7	16.7	26.7	0	0	10.0
shoes	20.0	23.3	16.7	10.0	20.0	0	10.0
they	33.3	20.0	16.7	6.7	13.3	0	10.0
good	46.7	13.3	13.3	16.7	0	0	10.0
thank	33.3	20.0	16.7	10.0	6.7	0	10.0
going	26.7	20.0	13.3	26.7	0	0	10.0
love	30.0	10.0	20.0	26.7	0	0	10.0
know	20.0	10.0	16.7	0	0	140.0	10.0
him	46.7	10.0	16.7	13.3	0	0	10.0

Note. * Correctly identified the letters but read with Sidaama sounds

Accordingly, 13.3%-56% of the students were able to read words correctly in this English test. Only 15% of the words were identified by almost half of the students. The

students who read incorrectly numbered 6.7- 26.7%. This means, for example, that 6.7% of the students read the word 'under' incorrectly, while 26.7% read the word 'help' incorrectly. The percentages of students who incorrectly identified words were proportional. The same is true for the percentage of students who were able to identify letters in English but unable to read the words. The proportion here was 13.3%–23.3%.

Regarding the confusingly read set of words, this task type showed a considerable percentage of students who were confused, reading words influenced by Sidaama (L1). Compared to the ratio of students in the Sidaama word reading task type (3.3%– 60.7%), the scores were characterised by a higher proportion (0%–60%) of students identified in the confusingly read set. For example, 60% of the students were confused when reading the word 'up' as they read the word as [yup] /jup/. 'Always' was read as /ɔ:lweɪz/, 'clean' as /tʃʾilan/, etc. Here, like in the same task type in Sidaama, most of these words started with letters with different pronunciations in Sidaama and English.

Concerning the students' performance in the sound omission set of words, Table 3 clearly shows that almost all the English words starting with digraphs were wrongly pronounced, with students committing sound omission in those words. The students read the digraphs as two separate sounds in the words. For example, the digraph sound 'th' was read as 't' and 'h' when reading words such as 'those' and 'thank'.

Some of the students also made sound omission errors with a few (15%) number of words when reading English words. Here, the students made the reading errors with diagraphs found word initially, medially, and finally. Regarding the students' reading errors related to words with silent letters, about 40% of students committed an error while reading the word 'know'. Here, the students pronounced the silent 'k' and read the word as *kinow*. In all, 10% of students could not decode and read words in English.

English Non-word Reading

As indicated in Table 4, regarding the non-word reading tasks in English, scores were recorded under five categories; these were 'correctly read', 'incorrectly read', 'confusingly read with L2', 'correctly identified the letters but read with L2' and 'cannot read'. They are almost the same as the categories in Sidaama non-word reading.

Table 4

English non-word reading

English Non-word	Correctly read (%)	Incorrectly read (%)	IlbutrwL* (%)	Confusing withL1 (%)	Can't read (%)
leb	46.7	26.7	13.3	0	13.3
lus	46.7	20.0	13.4	6.7	13.3
dit	53.3	6.7	13.3	13.3	13.3
fut	60	10.0	13.3	3.3	13.3
gax	13.3	13.4	13.5	46.7	13.3
huz	46.7	23.3	13.3	3.3	13.3
jod	60	6.7	13.3	6.7	13.3
kib	36.7	16.7	13.3	20.0	13.3

English Non-word	Correctly read (%)	Incorrectly read (%)	IlbutrwL* (%)	Confusing withL1 (%)	Can't read (%)
tob	46.7	23.3	13.3	3.3	13.3
mib	46.7	23.3	13.3	3.3	13.3
n	6	1	1	0	1
rop	56.7	16.7	13.3	0	13.3
hig	43.3	20.0	13.3	10.0	13.3
reg	50.0	16.7	13.3	6.7	13.3
s	5	1	1	6	1
tup	56.7	13.3	13.3	3.3	13.3
ral	60.0	10.0	13.3	3.3	13.3
wix	36.7	13.3	13.3	23.3	13.3
nep	50.0	16.7	13.3	6.7	13.3
nad	43.3	20.0	13.3	10.0	13.3
lut	66.7	6.7	13.3	0	13.3
yod	43.3	26.7	13.3	3.3	13.3
sim	46.7	16.7	13.3	10.0	13.3
t	5	2	1	1	1
s	4	2	1	6	1

Note. *Correctly identified the letters but read with Sidaama sounds

Regarding the frequency distribution, the results showed a decline even though the difference was small when compared to the word reading tasks in English. A few (4%) students read 50% of the English non-words. For the students' scores in each set, the highest proportion in the correctly read set was 66.7% for the non-word 'lut'. 'Gax' was read by the lowest (13.3%) percentage of the students. The frequency distribution also showed that nearly a quarter of the students read the non-words incorrectly, and the scores look proportional throughout the list. Almost 13.3% of the students were able to identify the non-words in English but read them with their first language sounds. Regarding the scores in the confusingly read set, 60% of words were confusingly read by the students. However, the scores show some decline compared with the confusion rate in the familiar word reading tasks in Sidaama. The non-words students were most confused by 'gax' (46.7%), 'kib' (20%), 'wix' (20%), and 'tat' and 'dit', both at 13.3%. As with the familiar word reading in Siddama, most students were confused in reading letters that had a common grapheme but different pronunciations in L1 and L2. The low cumulative frequency in both word and non-word reading tasks might deliver a clear picture of the difficulties in reading words in English.

The responses of the interviewed teachers support the results obtained from the reading tasks. Like the teachers of Sidaama, the two English teachers stressed that the low performance of students at the letter identification level could result in failure in higher level areas (such as word reading, oral reading fluency and comprehension skills). The teachers were asked if they thought student confusion was due to the shared alphabet. They were also asked in more detail if they could explain their classroom practices when such confusions occurred. To these questions, one of the teachers replied:

> Most of the students are struggling to segment and decode words. Sometimes it appears that they confuse the sounds with their mother tongue while segmenting and reading the letters. The confusion here comes from the use of similar letters in L1 and L2. However, in most cases they have been struggling to clearly identify the sounds of English in the words. For example, regardless of the variation in the English sounds, students used the same sounds with all the words while reading.

During classroom observations, word reading tasks were practised, and interferences between L1 and L2 were observed. Here, students sometimes used their knowledge of the first language while segmenting and decoding words. For example, when a student read the word 'cloud', s/he read the word as *tʃ'ilud*, and 'sunny' was read as *sinny*. It was also observed that students exhibited different kinds of confusion. For example, one student read the word 'cat' as *sat*, and the other read the other way, like *set.* Here, students just used the names of the letters in the alphabet while reading the sounds in the word. We also observed that some students were good at segmenting the letters, however, they struggled to decode correctly in English.

As in the Sidaama lessons, the students often answered in chorus in the English lessons. It was also observed that the better performing students received more attention from the teacher while the struggling readers were ignored. A consequence of this is that the teachers did not work with different students' specific problems in reading.

Discussion

This study examined how orthographic depth in Sidaama and English influences early grade students' reading of words and non-words. The results from the reading tests show that the differences in orthographic depth between the two languages caused challenges for the students when decoding words and non-words. The teachers confirmed these challenges in interviews, and struggling students were observed in the classrooms. Overall, the students read more correctly in Sidaama (L1) than in English, and they read words more correctly than non-words in both languages. Below we discuss the findings and point to some implications this study may have for reading skills instruction.

Looking across the results, they showed a clear effect of orthographic depth in both word and non-word reading. While most of the students (50%–83%) identified words correctly in the word reading in Sidaama, the frequency distribution showed a decline in the English word reading test, and a higher number of students were found to be confused when reading English because of their first language. The study revealed a similar result in the non-word reading tests of both languages. More students struggled to segment and decode non-words in English than in Sidaama, and 96% of them read less than 50% of the English non-words. In most cases, the students struggled to clearly identify the English sounds in the words. This was also noticeable in the classroom observations. Regardless of the variation in the English sounds, students used the same sounds with all words while reading. Both word and non-word reading tasks showed the students' difficulties in reading words in English, which may be seen in connection with the difference in orthographic depth in the two languages. This finding is in line with other research (Aro, 2004; Barnitz, 1978; Frost &

Katz, 1992; Schmalz et al., 2015) findings that languages with transparent orthographies have high accuracy scores for both word and non-word tasks in comparison to languages with deep orthographies.

As expected, non-words seemed more difficult to decode than words. This applied to both languages. Especially in English, however, the scores for non-words were low. The differences in the qualities of the two languages caused confusion among students learning to read words. As Schmalz et al. (2015) concluded, the one-to-many and many-to-one relationships between grapheme and phoneme – and the unpredictability of these correspondences in the orthography of English – make decoding words especially difficult for learners whose first language has a shallower orthography with a one-to-one relationship between the graphemes and phonemes. This is probably the reason the children read the non-words in Sidaama more easily; it is difficult to predict the sounds of graphemes in English since the correspondence is complex. Piper and Ginkel (2016) also suggested that there might be quite small differences between word- and non-word-recognition scores when the relationship between sound and symbol is consistent. These differences then would indicate the compatibility of the word reading strategies that children employ based on the specific language structures.

The data analysis also indicated that a few students struggled to read consonant clusters in the initial and final positions and to read words that have vowel length in both languages. This finding is supported by Read (1975), who remarked that some children failed to spell the nasals /n/ and /m/ when they occur before another consonant. In Sidaama, this happened when the nasal 'n' was followed by an obstruent; 'ha**nd**o'and 'a**ng**a' can be taken as examples. In the English test, we can take words such as 'do**wn'**, 'a**nd'**, '**und**er', and '**pl**ease' as examples.

In the Sidaama test measure, the additional letters were a challenge for the students to pronounce (e.g., 'gan**sh**o' – they omitted 'sh'), and almost all the English words starting with digraphs were wrongly pronounced by the students, who made sound omissions with those words ('**ch**air', '**sh**oes', '**th**ank'). This problem is associated with the children's failure in capturing the internal structure of words. This notion was also manifested in silent sounds. Here, 40% of the students committed an error while reading the word 'know'. The above discussion may support the notion that orthographic depth and reading are highly interrelated (Aro, 2004).

The interview and observation data reinforced our view that student confusion when reading was due to the fact that English and Sidaama share the same alphabet. The first language's role in students' reading development should thus not be underestimated. However, interviews and observations attested that, if students are good at identifying the letters in the language, they can easily read the words.

Conclusion and Recommendations

It is challenging to learn to read in two languages simultaneously, and this study has shown how the difference in orthographic depth between Sidaama and English made the decoding of words particularly challenging for early grade students. In the reading tests the study relied on, the transparent orthography of Sidaama allowed higher accuracy for both

word and non-word reading compared to English with its deep orthography. Overall, the children were more accurate when reading words/non-words in Sidaama than in English. In Sidaama, the majority of the students read most of the familiar words, and many succeeded in non-word reading. In English, the low cumulative frequency in both word and non-word reading tasks could show a clear picture of the difficulties in reading words in English. During classroom observations, it was observed that most of the students struggled to decode and read words in both languages, and the teachers participating in this study confirmed this.

As differences and inconsistencies between graphemes and phonemes may result in poor development of reading performance (Frost & Katz, 1992), it is important to take students' challenges seriously and discuss them with the aim of improving reading instruction. One of the study's consequences for instruction is the importance of working with students' graphophonemic awareness (Ehri & Soffer, 1999). Understanding students' graphophonemic awareness should thus be stressed in teacher education. In addition, the teacher should spend time on this topic when working with students. As most students learn to read in more than one language, the similarities and differences in the languages should be explicitly taught to students. Students' graphophonemic awareness also predicts further reading development (Harrison et al., 2016). A consequence of this is that teachers cannot ignore struggling students, as the classroom observations tended to show. If so, the poor development can become self-reinforcing. The interviews, however, showed that the teachers in this study were aware of these challenges, which is a prerequisite to a changing practice. How teachers may work and actually work with graphophonemic awareness in classrooms may thus be a topic for further research as well. To understand more fully orthographic depth's influence on students' literacy development in a broader context, it would also be interesting to study its impact on the phonological process and how differences in orthographic depth manifest in writing.

Limitation of the Study

This research showed important findings regarding the influence of orthographic depth in two languages (Sidaama and English) in students' reading of words and non-words in two primary schools. The findings are relevant to identify implications more than developing generalizations because of the sample size limitations.

Acknowledgments

The research conducted received support from the Norwegian Agency for Development Cooperation (NORAD) as part of the project "Beyond Access: Improving Quality of Early Years Reading Instructions in Ethiopia and South Sudan." We express our utmost gratitude for the generous support. We are also grateful for the unwavering dedication provided by the project management team, as well as the invaluable insights offered by the anonymous reviewers and editors.

References

Abraha, A. (2024). Challenges of early grade reading competency in Ethiopia: A synthesis of research and experience. In Kassahun, W., Sandvik, M. & Moges, Y. (Eds.). *Early*

childhood language education and literacy practices in Ethiopia: Perspectives from indigenous knowledge, gender, and instructional practices (pp. 13-26). Routledge. https://doi-org.ezproxy.oslomet.no/10.4324/9781003424956

AIR- American Institutes for Research (2016). *Reading for Ethiopia's Achievement Developed Monitoring and Evaluation*. Center for the Study of Reading Technical Report; no. 057.

AIR-American Institutes for Research (AIR). (2019). USAID reading for Ethiopia's achievement developed monitoring and evaluation (Read M&E). Early grade reading assessment (EGRA) 2018 end-line report. *Journal of Ethiopian Studies*, *37*(1), 41-56.

Anbessa, T. (2000). *A grammar of Sidaama* [Doctoral dissertation, Hebrew University].

Anbessa, T. (2019). The past and present orthographies of Sidaama (Sidaamu Afoo). *Ethiopian Journal of Languages and Literature, 15*, 35-56.

Antoni, M., & Heineck, G. (2012). Do literacy and numeracy pay off? On the relationship between basic skills and earnings. *BERG Working Paper Series, No. 86*. Bamberg University, Bamberg Economic Research Group (BERG).

Aro, M. (2004). *Learning to read: The effect of orthography* [Doctoral dissertation, University of Jyväskylä]. Jyväskylä Studies in Education Psychology and Social Research, 237. https://jyx.jyu.fi/bitstream/handle/123456789/13355/9513917223.pdf?sequence

Barnitz, J. G. (1978). *Interrelationship of orthography and phonological structure in learning to read.* Center for the Study of Reading Technical Report, no. 057. University of Illinois at Urbana-Champaign.

Blikstad-Balas, M. (2017). Key challenges of using video when investigating social practices in education: Contextualization, magnification, and representation. *International Journal of Research & Method in Education*, *40*(5), 511-523. https://doi.org/10.1080/1743727X.2016.1181162

Caravolas, M. (2018). Growth of word and pseudoword reading efficiency in alphabetic orthographies: Impact of consistency. *Journal of Learning Disabilities, 51*(5), 422-433. https://doi.org/10.1177/0022219417718197

Cohen, L., Lawrence, M., & Keith, M. (2007). *Research methods in education* (7th ed.). Routledge, Taylor & Francis Group.

Coltheart, M. (2006). *Dual route and connectionist models of reading: An overview.* London Review of Education.

Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, *39*(3), 124-130. https://doi.org/10.1207/s15430421tip3903_2

Department of Education and Skills (DES). (2011). *Literacy and numeracy for learning and life: The national strategy to improve literacy and numeracy among children and young people 2011- 2020.* Department of Education and Skills (Dublin).

Durgunoğlu, A. Y. (2002). Cross-linguistic transfer in literacy development and implications for language learners. *Annals of Dyslexia,* 52, 189-204. https://link.springer.com/content/pdf/10.1007/s11881-002-0012-y.pdf

Ehri, L. C. (2005). Learning to read words: Theory, findings, and issues. *Scientific Studies of Reading*, *9*(2), 167-188. https://doi.org/10.1207/s1532799xssr0902_4

Ehri, L. C., & Soffer, A. G. (1999). Graphophonemic awareness: Development in elementary Ethiopian languages relate to letter and word identification. *Writing Systems Research, 9*(1), 36-59.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1-4.

French, G. (2013). Early literacy and numeracy matters. *Journal of Early Childhood Studies (OMEP)*, *7*, 31-49. https://arrow.tudublin.ie/cgi/viewcontent.cgi?article=1065&context=aaschsslarts

Frost, R., Katz, L., & Bentin, S. (1987). Strategies for visual word recognition and orthographical depth: a multilingual comparison. *Journal of experimental psychology: human perception and performance, 13*(1), 104.

Frost, R., & Katz, L. (1992). Strategies for visual word recognition and orthographical depth: A multilingual comparison. *Advances in Psychology, 94*, 1-8.

Harrison, G. L., Goegan, L. D., Jalbert, R., McManus, K., Sinclair, K., & Spurling, J. (2016). Predictors of spelling and writing skills in first-and second-language learners. *Reading and Writing*, *29*, 69-89. https://doi.org/10.1007/s11145-015-9580-1

Kawachi, K. (2007). *A grammar of Sidaama (Sidamo), a Cushitic language of Ethiopia* [Doctoral dissertation, State University of New York at Buffalo]. ProQuest Information and Learning Company.

Labov, W. (1972). Some principles of linguistic methodology. *Language in society*, *1*(1), 97-120. https://www.jstor.org/stable/4166672

Ligembe, N. N. (2014). *Factors affecting the acquisition of reading skills in Kiswahili in primary schools: The case of Musoma municipal and Misungwi district councils* [Doctoral dissertation, The Open University og Tanzania]. https://repository.out.ac.tz/613/1/NESTORY_LIGEMBE.pdf

Melby-Lervåg, M., & Lervåg, A. (2011). Cross-linguistic transfer of oral language, decoding, phonological awareness and reading comprehension: A meta-analysis of the correlational evidence. *Journal of research in reading*, *34*(1), 114-135. https://doi.org/10.1111/j.1467-9817.2010.01477.x

Miller, R. T. (2019). English orthography and reading. *The TESOL Encyclopedia of English Language Teaching*, *1*(7).

Piper, B. (2010). *Ethiopia early grade reading assessment regional findings annex.* Prepared for USAID/Ethiopia under the USAID Ed Data II project, 'Learning Outcomes Research and Assessment-Related Projects' task order, EHC-E-07-04-00004-00 (RTI Task 7).

Piper, B., & van Ginkel, A. J. (2016). Reading the script: How the scripts and writing systems of Ethiopian languages relate to letter and word identification. *Writing Systems Research*, *9*(1), 36-59. http://dx.doi.org/10.1080/17586801.2016.1220354

Read, C., (1975). Children's categorization of speech sounds in English (Vol. 1). National Council of Teachers of English.

Rey, A., & Niels, S. (2005). Graphemic complexity and multiple print-to-sound associations in visual word recognition. *Memory & Cognition, 33*(1), 76-85. https://link.springer.com/content/pdf/10.3758/BF03195298.pdf

RTI International. (2015). *Annual report*, *July 2014–June 2015*. Prepared for USAID under the Reading for Ethiopia's Achievement Developed (READ) Technical Assistance project, Cooperative Agreement No. AID-663-A-12-00013. Addis Ababa and Research RTI.

RTI. (2019). *Reading for Ethiopia's achievement developed, monitoring & evaluation (READ M & E) early grade reading assessment (EGRA) in three mother tongues (Aff Somali, Sidamu Affoo and Tigrigna)*. Data Analytic Report.

Schmalz, X., Marinus, E., Coltheart, M., & Castles, A. (2015). Getting to the bottom of orthographic depth. *Psychonomic bulletin & review*, *22*, 1614-1629. https://doi.org/10.3758/s13423-015-0835-2

Solomon, A. (2014). *Status and Determinants to Reading Skill Development: Grade Four* [Doctoral dissertation, Addis Ababa University].

Yri, K. M. (2004). Orthography and phonology in Sidaamu Afoo (Sidamo). *Journal of Ethiopian Studies, 37*(1), 41-56. https://www.jstor.org/stable/41966152

Explicit instructional moves in teaching reading in grade one: Observations from four Amharic classrooms

Nigist Gedife Hunegnaw
Ph.D. Candidate in Applied Linguistics, Department of Linguistics and Philology, Addis Ababa University

Elena Tkachenko (Ph.D.)
Professor, Faculty of Education and International Studies, Department of Primary and Secondary Teacher Education, Oslo Metropolitan University

Emilia Andersson-Bakken (Ph.D.)
Associate Professor, Faculty of Education and International Studies, Department of Primary and Secondary Teacher Education, Oslo Metropolitan University

Abstract

In response to the recurring poor literacy achievement among learners in various mother tongue languages in Ethiopian schools, this study investigated teaching practices of four Amharic teachers at three government schools in Hawassa city, focusing on how the instructional content is implemented and what explicit instructional moves the teachers used in teaching early reading. Through a qualitative case study approach, utilizing video-recordings and checklist-based observations as data collection tools, the study revealed variations in implementation among all four teachers. Modelling, discussion, feedback and guided practice have been found to be the explicit instructional moves most prominently used by the teachers. Elements of explicit instruction seemed to be implemented simultaneously, albeit randomly, and the lesson content was delivered systematically from simple to more complex. The instructional content was found to be primarily grapho-phonological, where the fidäl was the minimal content unit of the instruction. Finally, the findings indicate that teaching practices are influenced by external factors such as lack of literacy materials and inadequate Amharic language competence among some teachers. The results might suggest the need for future policy changes and practical interventions aimed at enhancing teachers' competence and improving the provision of adequate literacy instructional materials.

ARTICLE HISTORY
Received: 11 November, 2023
Accepted: 21 May, 2024

KEYWORDS
Explicit instructional moves, early-grade reading, reading instruction, teaching practices, Amharic classrooms

Introduction

Early literacy development lays the foundation for children's future academic success. Methods of teaching reading and its components in early grades have been a subject of considerable debate in the science of literacy (Castles et al., 2018; Connor et al., 2004; Seidenberg et al., 2020), and scholars are still in search of effective methods of teaching early-grade reading to improve children's learning and achievement (Connor et al., 2004; Kemp, 2018).

The debate over the teaching methods is caused by children's poor learning achievements in different grade levels across the globe. The literature reveals that the reading

CONTACT Nigist Gedife Hunegnaw nigistie@gmail.com

DOI: https://dx.doi.org/10.4314/bdje.v24i2.3

achievement of children is low in many parts of the world, including developed countries, which is persistent in developing countries such as Ethiopia (Connor et al., 2004; Piper, 2010a; Piper, Jepkemei & Kibukho, 2015). Earlier studies attribute these poor achievements of early grade reading to such factors as quality of the reading instructional materials, literacy environment, socio-economic conditions and teachers' qualifications and practices (Dubeck, Jukes & Okello, 2012; Mohammed & Amponsah, 2018; Odhiambo, 2008; Piper et al., 2015; Robledo & Gove, 2018; Sanden, 2012). These factors are globally prevalent, but scholars suggest they may vary across different contexts and countries, including Ethiopia (Dubeck et al., 2012). Despite extensive research into reading outcomes and the factors contributing to low reading achievement, little research has been done on the actual teaching practices employed in early-grade reading classrooms, particularly in the Ethiopian context. This study aims to address this gap.

To improve early-grade reading instruction, numerous scholars recommend systematic explicit instruction for the five basic components of early-grade reading: phonological awareness, phonics, reading fluency, vocabulary and comprehension (Archer & Hughes, 2011; Dean, 2007; Hughes et al., 2017; National Reading Panel (NRP), 2000; Reutzel et al., 2014; Reutzel, 2015; Rupley, Blair, & Nichols, 2009; Shanahan, 2005). These scholars have noted that systematic, structured and direct instruction effectively helps students to focus on the specific skills and strategies needed to decode and understand written language. Systematic and explicit reading instruction has additionally been claimed to be particularly beneficial for certain groups of students, e.g. second language learners (Goldenberg, 2020), struggling readers (Rupley et al., 2009) and those from socioeconomically disadvantaged backgrounds (Mwoma, 2017). Thus, the use of explicit instruction in teaching reading literacy continues to be a focal point of curricular content, research and educational policy discussions both in Ethiopia and worldwide. Pretorius (2019) argues that explicit teaching of reading literacy might be a more effective and appropriate pedagogical approach in many African countries. Ethiopia is not an exception here, and poor reading literacy achievement has raised concern and highlighted the need for more research on early reading instructional practices (Anteneh et al., 2016; Piper, 2010b, 2010c; Abera, 2014; Read M&E, 2020).

Teaching practices and the instructional moves employed by teachers have been identified as some of the key issues affecting reading achievement in Ethiopian schools (Anteneh et al., 2016; Abera, 2014). Classroom teaching comprises the content of the lesson and the methods used for presenting it. The content refers to the five essential early grade reading components: phonological awareness, phonics, vocabulary, fluency and comprehension (NRP, 2000). The method refers to the specific teaching strategies such as the explicit instructional moves used by teachers to deliver the content. The objective of this study is to investigate how Amharic teachers in grade one implement reading instruction, focusing on the explicit instructional moves in their early reading teaching practice. As a result, the following research question is addressed in this study: What explicit instructional moves do teachers use when teaching early reading in grade one?

Given the strong support for the use of explicit instruction for teaching early-grade reading components among numerous scholars (Archer & Hughes, 2011; Connor et al., 2004; Hughes et al., 2017; NRP, 2000; Reutzel et al., 2014; Sedita, 2005), this study might

contribute to a better understanding of the ways early reading instruction is provided in Amharic classrooms and how specific content components are actually taught.

Theoretical Framework: The Importance of Scaffolding

This study is grounded in the sociocultural theory of learning, which emphasises the importance of social interaction and active learning environment in the development of cognitive and language skills. Vygotsky (1978) recognizes the role of a more knowledgeable other and how they through scaffolding can mediate and support children's learning. Scaffolding can be provided by the teacher but also by the materials in the learning environment or by peers. Vygotsky (1978) talks about scaffolding as a process that can occur in the zone for proximal development (ZPD), which refers to "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). Teachers play an important role in scaffolding children's learning. This involves guiding them and mediating social interactions in the classroom through language and practice. These scaffolding principles, rooted in the ZPD, are of great importance for students to learn how to guide their own progress and development. This instructional strategy conveys the gradual release of responsibility (simple to complex release of content) in the process of lesson delivery, which makes it an explicit form of instruction. Explicit instruction is suggested as suitable and also commonly used in teaching early grade reading components (Doabler et al., 2015). In this study, explicit instructional moves are conceptualised as elements of scaffolding for providing support within the sociocultural theory.

Reutzel et al. (2014, p. 409) identified seven explicit instructional moves related to early reading skills: (a) direct explanation, (b) modelling, (c) guided practice, (d) independent practice, (e) feedback, (f) discussion, and (g) monitoring. The first explicit instructional move in Reutzel et al. (2014), *direct explanation*, is associated with giving 'overt' and 'concrete' explanation of content to be learned. It is concerned with giving clear description of concepts with precise, clear and comprehensible language. Direct explanation is highly associated with explicit reading instruction delivery (Allington, 2013; Archer & Hughes, 2011).

The next component of explicit instruction is *modelling*; this is when the teacher reveals ways of using specific concepts, processes, skills, strategies of doing things, etc. This element is considered as an essential part of effective interventions basically for special needs learners such as struggling readers and disabled learners (Allington, 2013; Archer & Hughes, 2011). It is also a feature used in early grade reading instruction across the components and sub-skills such as phonological and phonic components and sub-components.

Guided practice is a strategy consisting of the teacher's guidance, scaffolding, and support to the students' learning, in which the teacher and students keep active interaction through recurrent classroom practices with the teacher's active guidance and instruction (Reutzel et al., 2014; Rupley et al., 2009). As a result of the guided practice students receive from their teacher, they are expected to be able to run independent practice as an instructional outcome.

Independent practice is the next stage where learners become able to apply the new concepts by themselves, without support from the teacher or other relevant support providers

(Reutzel et al., 2014). This is an explicit instructional move which is used to ensure that learners have acquired new knowledge and experience and that they can apply it on their own (Archer & Hughes, 2011). Independent practice as an explicit instructional move is used to ensure learner progress; however, it is 'less recommended' for first graders, who may be too young to perform every task entirely on their own (Reutzel et al., 2014).

Feedback is an explicit instructional move whereby learners receive close follow-up and monitoring with practical teachers' written/verbal reaction (Reutzel et al., 2014). It could be used either to correct mistakes or to confirm accuracy of their learning applications. Feedback gives learners an opportunity to internalise the conceptual content in a more practical and memorable way through correction and/or approval of their work. As it helps to fill learning gaps (Archer & Hughes, 2011; Reutzel et al., 2014), feedback is a relevant element in reading instruction as well.

Discussion refers to the practical verbal communication/information exchange between the teacher and learners in the classroom. It may involve asking and answering questions, eliciting student responses, asking for elaboration of concepts, interaction between the teacher and learners or their peers (Wilkinson & Son, 2011). Usually, it appears during guided practice or direct explanations, and the teacher is often the initiator and facilitator for discussions (Archer & Hughes, 2011; Reutzel et al., 2014). Discussion is expected to be limited in grade one, and it will increase as learners become more exposed and attached to texts in the later parts of the instruction (Reutzel et al., 2014).

Monitoring is associated with teachers' critical follow-up of their learners' responses and progress. It enables teachers to scrutinize the lively performance of their learners, be informed about learners' progress, measures to be taken afterwards, etc. (Archer & Hughes, 2011). Monitoring can be realised through a formal assessment of learners' level of concept understanding, effective instructional practices, learners' outcomes, classroom management, etc. (Reutzel et al., 2014). Monitoring has been found to be a crucial teacher responsibility across various grade levels, including grade one (Reutzel et al., 2014).

We have adopted Reutzel et al.'s (2014) explicit instructional moves presented above when investigating the teaching practices of Amharic teachers related to teaching reading in the first grade.

Methods

Study Design and Sampling Techniques

This qualitative case study explored Amharic early reading instruction in grade one. Purposive sampling was used to select the research site, which is Hawassa city, the schools and the grade level. The research site and the schools were selected based on convenience. The selection of grade one is due to its importance in early literacy development. Three schools were chosen for the sake of data management, with a total of four participating teachers, two from the same school. As there were no more than two teachers in each school, available teachers in each selected school participated in the study after obtaining their consent.

Data Collection Tool

The main data collection instrument in this study was video-supported observation. To analyse the implementation of the instruction, a checklist was prepared based on the theoretical suggestions of explicit instruction, according to Reutzel et al. (2014). The observation was made with a co-observer in order to ensure reliability. The observation was intended to find out how the teachers' conducted the classroom implementation practices of the reading instruction. The video recordings were made for three full periods in each class; however, lessons in some cases were shorter than the planned duration. A single period was 25-35 minutes long. As the instructional data reached saturation level in the duration of the whole period, a single whole classroom observation of each teacher was used for the analysis in this study.

The observation checklist included the following explicit instructional moves: direct explanation, modelling, guided practice, independent practice, feedback, discussion, and monitoring. These elements were used to code the observational data from the video recordings through counting their frequency. Within each of the elements, the number of implemented activities for each teacher was counted, and it was specified which content components the instruction delivery included.

Data Processing and Analysis Techniques

In this study, the data was first collected through video recording and note taking according to the checklist. One lesson from each teacher was used for the analysis. Each video was transcribed in Amharic and categorized under each element. Then, they were translated to English for references. After manual categorization, the transcribed data were coded by using NVivo 10 data analysing software. The nodes and sub-nodes were created in the software by using the explicit instructional moves as topics. The analysis was done by deductively coding the material with the explicit instructional moves, as mentioned above. In some cases, certain instructional moves were found to be overlapping, suggesting the possibility of them belonging to different nodes. In this case, data were coded under the node that seemed most fitting. The analysis was descriptive, and the results can say something about the four teachers' explicit instructional moves when teaching reading in first grade. The data presented as references in the analysis are presented in an order of Amharic raw data, IPA transcription and the English translation. Finally, during the data organisation and coding, schools and individual teachers were anonymised in numbers to ensure confidentiality.

Results

The observations from this study show that instruction is delivered in integrated manner and the focus is mostly on the grapho-phonological content. The most common teaching pattern observed was the following: the teachers wrote the targeted fidäls and their variants on the board, encouraging the students to identify and repeatedly articulate them, first with the teacher, then with peers. Instruction at the phoneme or sound level was not provided in isolation, as the minimum learning unit is the fidäl, which represents a syllabic combination of a consonant and a vowel. The exception was the sixth fidäl variant, which is

the only natural isolated phoneme existing in the writing system, and is usually presented in lessons and taught as an independent fidäl like other orders and not a phoneme. Consequently, induced by the alpha-syllabic writing system in Amharic, the minimal instructional content in teaching practices for early reading in grade one in the observed Amharic classrooms was the fidäl, which is a phonologically patterned grapheme and not an isolated sound.

To teach the targeted fidäls, different techniques were used by the teachers observed in this study. Fidäl variant reciting was the most common teaching-learning activity. Other activities included word formation with targeted fidäls, blending and segmenting the fidäls, etc. Such activities might be helpful for the students, reinforcing their skills in fidäl recognition. Regarding content delivery, the classroom observation documented learning activities in line with suggested activities in the Amharic grade one textbook and teache guide, which were analysed earlier in another paper from this project (Nigist, in review).

Table 2 below summarises the teachers' use of different explicit instructional moves in the observations. As can be seen in the table, the teachers used all the seven explicit instructional moves, however, to varying degrees. While for Teacher 4 the total number of occurrences of explicit instructional moves was 117, for Teacher 3, 425 explicit instructional moves were identified. Guided practice, modelling, discussion, and feedback were the explicit instructional moves most frequently used by the teachers. In our analysis below, we present qualitative data with some examples of the explicit instructional moves observed.

Table 1

Summary of observation findings for teachers' implementation of systematic explicit instruction

Elements of Explicit Instruction	Number of Activities Performed in Each Element by Each Teacher				Total
	T1	T2	T3	T4	
Direct Explanation	14	5	2	4	25
Modelling	26	35	81	53	195
Guided Practice	40	55	94	24	213
Independent Practice	2	13	46	1	62
Explicit Feedback	7	35	21	5	68
Implicit Feedback	0	4	39	5	48
Discussion	26	30	118	10	184
Monitoring	29	30	24	15	98
Total	144	207	425	117	893

Direct Explanation

The data suggest that teachers consistently employ direct explanation in their lessons, however, not very often. Direct explanations were used in teaching different aspects of reading skills, for eample, to tell which fidäl a symbol represents, how a fidäl should be pronounced, what a concept refers to, how a word is read and what it means, what an object is used for, what a concept/object consists of, how larger linguistic units such as the sentence

are formulated, where a fidäl appears in the alphabet arrangement, how many words can be formed by using a single fidäl, etc. For example, Teacher 1 explicitly and directly taught the meanings of blending and segmenting and provided examples for each concept. In her examples, she directly taught what the words formed by the target fidäls meant and what the fidäls were used for when mentioning the words ቄብ /qeb/ meaning ‘pullet’ and ቅርጫት /qirʧ’at/ which means ‘basket’. She also explained the meanings of words by relating them to associated terms, for example, in her explanation of the word /abäba/ - ‘flower’, the teacher described it in relation to its different parts, naming the root, stem, and leaves. Teachers 2 and 4 also directly explained to their students that the fidäls ሞ/mɔ/ and ቆ /qɔ/ were the last units of each respective fidäl variant. An example of direct explanation in the lesson from Teacher 3 is as follows:

> ይህ ‘በ’ አይደለም፡ ‘ባ' ነ ው፤ …‘በ’ የ ሚጀ ፈ ውእ ንደዚህ ነ ው፤ እ ግሮቹ እ ኩል ሚሆን አ ለ ባ ቸው፤
> /jɨh ‘bä’ ʔajɨdällämm: ‘ba’ näw;…‘bä’ jämmis’s’afäw ʔɨndäzih näw; ʔɨgroʧʧu ʔɨkkul mähon ʔalläbbaʧʧäw/
> ‘‘This is not ‘/bä/, it is /ba/…; /bä/ is written as such; its legs should be equal’’.

Compared to other explicit instructional moves such as modelling, discussion, feedback and guided practice, it seems that direct explanation was not used much by the teachers. There was also variation in the frequency of its use among individual teachers. Teachers 1, 2, 3 and 4 used 14, 5, 3, 4 direct explanations in the observed data, respectively. This might indicate that Teacher 1 employs direct explanation significantly more than the other teachers, which might suggest a more explicit approach for concept delivery to her students. Such a method may be particularly beneficial for young learners, as it is a recommended teaching strategy for their grade level.

Modelling

Modelling was one of the most frequently employed explicit instructional moves in the data (195 occurrences registered in total for all four teachers). The participating teachers used modelling to guide students towards proper learning strategies and to correct inaccuracies. They wrote fidäls and words on the board every time so that those with no textbooks could have access to the instructional content, instructed those having books already, showed how to write fidäls correctly (direction, space in between, physical appearance of the fidäls, font size, etc.), how to sit properly so that they could have full access to the blackboard, etc. These were all manifestations of the teachers’ modelling activities to help their students learn.

Modelling activities were often performed by the teachers to guide the learners on effective learning strategies, including appropriate classroom behaviour and study techniques, e.g. that the students should follow their teacher, look at what is written on the board, concentrate, practice, or repeat after the teacher. The teachers also guided the students on how they could create connections between fidäls/symbols to aid memorization and retention through counting and visualization. Furthermore, the teachers linked new lessons to

the students' prior knowledge and instructed students in practical aspects like using stationery and navigating their textbooks.

Modelling activities typically occurred at the I DO stage of the gradual responsibility release model, where the teacher demonstrated the tasks. In the observed classes, teachers gave clear and practical instructions, outlining what students should and should not do during the lesson. Among the four teachers, Teacher 3 used modelling the most (81 times), followed by Teacher 4 (53 times), then Teacher 2 (35 times) and Teacher 1 (26 times). The modelling moves usually included the use of visual aids, numerical examples and connections to familiar concepts. For example, Teacher 1 was bringing her hands together to visualise blending and separating them apart to visualise segmenting for the learners. She was also using numeric representations of the fidäls in each fidäl variant list by asking which stage of the fidäl variant arrangement the selected fidäl belongs to at the selected root fidäl's horizontal list on the alphabet board. Moreover, she was asking for the name of the object picture whose name starts with the targeted fidäl.

Teacher 2 employed modelling mostly in a form of dos and don'ts. She also tried to establish connections by using terms that illustrated familial relationships between letter variants such as /lä/'s variants, /mä/'s variants (የ 'ለ' ዘሮች /jä'lä' zäroɬʃ/, የ 'መ ዘሮች /jä'mä' zäroɬʃ/), etc. She also facilitated word associations by linking the fidäls to the words they formed and asking her students questions like ''what did we write/form in 'lä' or 'mä'?'', etc. Such an approach could help the learners remember the practiced activity and build upon this in their further learning. The modelling moves used by Teacher 4 were similar to those of Teacher 2 in that she also used the list of fidäl variants of /qä /ቀ/. By engaging students in a 'matching' exercise, she helped them recognize common features among visually similar fidäls, assisting them in identifying and internalizing the different fidäl variants.

In addition to using modelling most frequently among the four observed teachers, Teacher 3's modelling was quite innovative and creative. For instance, in her visualisation of the physical characteristics of the fidäl /ቀ/qä/, she said ''ማን ና ት ይቺ ወገ ቧን የ ያ ዘ ችው እ ን ዲህ ወገ ቧን ይዛ ቆ ማ ለ ች: /mann nat jɨɬʃi wägäbuan jejazeɬʃw: ʔɨndih wägäbuan jiza qomalläɬʃ/, *what is this holding its waist; it stands this way holding its waist…''*. In her attempt to visualise fidäl /በ-bä, she described the fidäl as a 'gate', saying ''ማን ና ት ይህ ቺ፡ በ ር ትማ ላ ለ ች: /mann nat jɨɬʃi:bärr tɨmäsɨlalläɬʃ/ *what is this which looks like a gate?*''. She also practiced counting of the diacritic markers of the fidäls, which she addressed as 'legs'. For example, she asked ''ይህ ቺ ሦስ ት እ ግ ር ያ ላ ት ማን ና ት? /jɨhɬʃi sɔst ʔɨgir jallat mann nat?/ *what is this having three legs?*'' to refer to the fidäl /ጠ/t'ä/, and ''ይህ ቺስ አ ራ ት እ ግ ር ያ ላ ት ማን ና ት? /jɨhɬʃis ʔarat ʔɨgir jallat mann nat?/- *what is this fidäl having four legs*?'' referring to /ማ/mä/, etc. Such modelling moves might be important to support the students' memory and facilitate their learning.

Generally, modelling was one of the most frequently used explicit instructional moves in the observed classrooms. Teachers employed this instructional move to varying degrees, and the teacher who demonstrated most of the occurrences, was also quite innovative and creative in employing modelling. Sometimes modelling overlapped with other explicit instructional moves such as feedback, guided practice and monitoring.

Guided Practice

Guided practice was the most frequently used explicit instructional move in the observed classrooms (213 occurrences). This practice was typically structured in three main forms: interactive question and answer sessions, repetitive exercises and clear instructions on what to do and what to avoid. In addition, the teachers seemed to have established routines for opening and closing the lessons. The teachers first demonstrated practices and tasks themselves and afterwards performed the same activities together with the students, providing hands-on guidance. They frequently wrote the targeted fidäls on the blackboard and then posed leading questions about them. After the students answered the questions guided by the information delivered by the teacher, they were instructed to frequently practice the concepts through recitation or word formation. The teachers used various techniques in forming the questions to help learners remember what they learnt, such as what word they formed earlier by using the targeted fidäl, by using the horizontal fidäl variant counting system, by bringing visual conceptualisations to approach the fidäls, by limiting the number of fidäls in the word the learners had to form, by identifying similarities and differences across the individual fidäl variants, etc. For example, Teacher 2 delivered the following guided practice:

ሞ ሊ፡ በ ሊ ምን ጽፈና ል? /bä li mɨn s'ɨfänall?/
T. /li:/ what did we write with /li/?
ተ. ሊሊ… /lilli/
S. Lili…
ሞ ሊሊ ማለት ምን ማለት ነ ው? /lilli malät mn malät näw?/
T. What does Lili mean?
ተ. ስ ምነ ው፤ /sɨm näw/
S. It is a name.
ሞ የ ምን ስ ም? /jämn sɨm?/
T. What name is it for?
ተ. የ ሰ ውስ ም፤ /jäsäw sɨm/
S. A person's name.

In this conversation, the teacher asked leading questions to teach three concepts: that they wrote the word /lili-ሊሊ/ by using fidäl /li-ሊ/, that /lilli/ is a 'name' and that it is a 'person's name'. These kinds of engaging activities were used throughout the lesson of each teacher to scaffold learning. Teacher 4 also practiced guided practice in the following way:

ሞ ይህ ቺ ማነ ና ት? ('ቃ' ን እ የ ጠቆ ሞች) /jɨhʧʧi mann nat?/ ('qa' n ʔɨjjät'äqqɔmäʧʧ)
T. What is this? (pointing to fidäl /qa/)
ተ. ቂ
S. /qi/
ሞ ቂ ከ ማ ጋ ር ...? /qi kämann gar…?/
T. /qi/ with whom…?
ተ. ከ ቂ ጋ ር … /kä qi gar…/
S. With /qi/..

ሞ፡ እዚህ ጋር ነ ው? (ወደ ቀ እየ ጠቆ ሞች) /ʔizih gar näw?/ (wädä ‘qä’ ʔɨjjät’äqqomäʧʧ)

T. Is it here? (pointing to /qä/)

ተ. አ ይደ ለ ም፡ /ʔajɨdällämm/

S. No!

ሞ፡ እዚህ ጋር ነ ው? (ቁ ን እየ ጠቆ ሞች) /ʔizih gar näw?/ (‘qu’n ʔɨjjät’äqqomäʧʧ)

T. Is it here? (pointing to /qu/)

ተ. አ ይደ ለ ም፡ /ʔajɨdällämm/

S. No!

ሞ፡ እዚህ ጋር ነ ው? (ቃ ን እየ ጠቆ ሞች) /ʔizih gar näw?/ (‘qa’n ʔɨjjät’äqqomäʧʧ)

T. Is it here? (pointing to /qa/)

ተ. አ ዎ! /ʔawä/

S. Yes!

In the above classroom practice, the teacher led the learners to identify both similarities and differences between fidäl variants. She deliberately connected the individual fidäls to the wrong matches first to test the students’ understanding and to guide them to the correct matches.

Furthermore, guided practice was found in the start of the lessons when the teachers recapped the previous lesson and introduced the content for the day to the students. From the lessons observed for this study, two of the teachers (T1 & T3) organized their lessons both recapping the previous lesson and introducing the lesson of the day, whereas two other teachers (T2 & T4) avoided recapping and moved directly to introducing the content of the day’s lesson. Such guiding practices might be important for the students’ learning as they connect the previous lesson to the current lesson. Introducing the content of the new lesson also might help the students to prepare for what is coming next in the lesson.

The teachers also guided the students at the end of the lessons. Recapping was also used to review what they learnt during that lesson and the students needed to practice more on. Some of the teachers gave the students homework so that they could continue practicing at home and prepare for the next day. For example, Teacher 1 started her revision by saying ‘‘አ ሁን ሰ ዓ ታ ች ን እ ያ ለ ቀ ስ ለ ሆ ነ እ ን ደ ገ ና እ ን ከ ል ሳ ለ ን ፤ …ማ ጠ ል ማ ለ ት ም ን ማ ለ ት ነ ው ብ ለ ና ል ? /ʔahun säataʧʧin ʔɨjjalläqä sɨlähonä ʔɨndägäna ʔɨnkällɨsallän; mänät’t’äl malät mɨn malät näw billänall?/ *Now, as our time is getting over, we recap again…what did we say segmenting means?*’’ After saying this, the teacher started reviewing all the content of the lesson, which was an interactive/engaging activity. This is an example that is representative of all the teachers except Teacher 4.

Independent Practice

Independent practice is a stage where students do not receive their teachers’ support so that they can exercise by themselves after receiving instructional orientations and procedures. This explicit instructional move was implemented in a limited manner across the teachers. This seems to be in line with previous research, which claims that learners at this grade level would benefit more from guided practice and modelling rather than working independently on their own (Reutzel et al., 2014). Consistent with this, the data in this study

showed that students in all four classes were more involved in guided practice, modelling and interactive learning activities rather than in independent practices.

The observed independent practice activities were related to reading (recitations of fidäls, words and sentences) and writing activities. For example, students engaged in independent writing by copying fidäls, words, and sentences from the blackboard. Among the four teachers, Teacher 3 was the one who frequently used independent practice (46 times), compared to other teachers (2, 13 and 1 times for Teacher 1, 2 and 4, respectively). After presenting the lesson in a discussion form, Teacher 3 practiced the lesson content together with the learners guiding them first and then allowing them to practice independently, asking them to come out to the blackboard one by one. During the independent practice time, she monitored the students' work and provided feedback. For example, she invited them to start the independent practice as follows: ''አሁን ለክፍሉ የሚል ማን ነው? ፣ እዚህ ወጥቶ የሚያስቆጥር …? /ʔahun läkɨflu jämmil mann näw; ʔɨzih wät'ɨto jämmijasqot't'ɨr…?/ *Now, who can say it for the whole class? Who would like to come here and recite…?*'' Subsequently, the teacher selected students who then took turns coming to the front of the class to perform the activities.

Moreover, the teachers instructed learners to practice independently in cooperation with their peers, without assistance from them. For instance, Teacher 1 said: ''አሁን በጥንድ በጥንድ ሆናችሁ ዓ/ነ ገሩን ታነባላችሁ፤ /ʔahun bät'ɨnd bät'nd hɔnaʧʧɨhu ʔa/nägärun tanäbballaʧʧɨhu/ *Now, you read the sentence in pairs*''. Teacher 2 also assigned various independent practice activities to her students. For instance, she asked them to create words of two fidäls by using each targeted fidäl from the day's lesson, saying: ''አሁን በ'ለ' ዘሮች ባለሁለት ባለሁለት ሆሄ ቃላት ማስረቱልኝ፤ /ʔahun bä 'lä' zäroʧʧ balähulätt balähulätt hɔhe qalat mäsrɨtuliŋ/ *Now, form words of two fidäls by using each variant of fidäl /lä/*''. This task was intended for students to complete on their own. In the observational data from Teacher 4, there was only one registered instance of independent practice, suggesting that this teacher seldom included such activities for her students.

In general, independent practices throughout the observed classes centred on recitation of fidäls and reading of words and sentences formed as extensions and demonstrations of the fidäls and their functions.

Feedback

Feedback as an explicit instructional move was observed in teaching practices of all four teachers, but also to varying degrees. Feedback was often provided in conjunction with other instructional moves like modelling, guided practice, independent practice, and monitoring. Feedback was delivered both orally after the learners' active reactions to the activities and in a written form by marking their exercise books for homework and classwork. Here are some examples of written feedback from Teacher 3: ''በትክክል ፃፈው፡ /bätikkɨl s'afäw/ write it correctly; ይህ በትክክል አልተጻፈም -/jɨh bätikkɨl ʔaltäs'afämm/ *this is not properly written...*; በፊት ለፊት ፃፈው፡ /bäfit läfit s'afäw/ *write it on the front*''.

Feedback was coded in the data either as explicit or implicit, for the teachers had their preferences to provide it in these modes (e.g., Teacher 2 and 3 provided more explicit feedback than Teachers 1 and 4). In the case of explicit feedback, the teachers for example were overtly stating their appreciation and approval of the learners' progress to encourage

and motivate them, or they could directly point out inaccuracies in their work, that their way is not accurate. Some of the feedback was accompanied by applause from the whole class initiated by the teachers. For example, when her students correctly formed words by using the variants of fidäls /ለ-lä/ and /ሜmä/, Teacher 2 delivered word formation activities by using each variant of fidäls /ለ/-lä/ and /ሜ/mä/. Then, when the students correctly formed words by using each of the variants, she was saying: ‘‘ጎበዝ የኔ ልጆች! ጎበዞች!-/gɔbäz jäne lijɔʃʃ! gɔbäzɔʃʃ!/፡ clever, my children! Clever!’’ etc. When the children formed a word by using fidäl /ሜ/mä/, the teacher said, ‘‘ጎበዝ የኔ ልጆች! ለራሳችሁ አጨብጭቡ! //gɔbäz jäne lijɔʃʃ! /lärasaʃʃihu ʔac’äbc’ibu/ Clever, my children! Clap for yourself!’’. These kinds of overt expressions of praise and encouragement were used among most of the teachers, which are again forms of explicit feedback. In addition, the feedback was constructive that it could inform and guide further student work. For example, Teacher 1 once said, ‘‘ይህ ትክክል አይደለም ይህ ‘ቅ’ነ ው? አይደለም እነዚህ ‘ቃ’እና ‘ቂ’ናቸው። ነገ አስተካለህ ሰርተህ ና። /jɨh tɨkkɨl ʔajɨdällämm! jɨh ‘q’ näw? ʔajɨdällämm! ʔɨnnäzih ‘qa’ ʔɨnna ‘qi’ naʃʃäw; nägä ʔastäkakläh särtäh na/ This is not right! Is this /q/? It is not! These are /qa/ and /qi/. Come tomorrow with a correct one’’. Thus, this is considered as a form of a corrective explicit feedback focusing on pointing out the student’s inaccuracy and encouraging the student stating that he/she should rework it for accuracy.

On the other hand, implicit feedback was delivered by the teachers in different ways. Some of the teachers, for example, left the students standing and gave the chance to other students to provide response to their wrong answers. In addition, they suggested other methods of doing things without saying this is ‘right’ or ‘wrong’. For example, when a student made an independent practice of word reading by counting the individual fidäls, Teacher 3 said, ‘‘አንድ ላይ…!? አንድ ላይ…!? */ʔand lay…!?, ʔand lay…!?/ Together…? Together…?*’’, which means that it is not right to separately read individual fidäls appearing in the word.

In general, feedback was one of the frequently employed explicit instructional moves, but there was also variation among teachers. Feedback was delivered both in isolation and in integration with other components. It was an extensive part of the instruction aimed to correct inaccuracies and improve learner performance. In some cases, however, the learners did not even understand that they were wrong, and they were standing for some time until the other students finished speaking, etc. In this case, explicit feedback seems to be more informative for the children at that grade level.

Discussion

Discussion was the third frequently implemented explicit instructional move in the observational data. All the teachers had quite interactive and conversational style in the observed classes, primarily using a question-and-answer format. The teachers asked questions first, waited for the students’ responses and then provided further elaborations, explanations and conclusions, or they presented content in conversation with the learners. Discussions found place mostly during and after direct explanation, guided practice and independent practices. The teachers were often the initiators of the discussion as highlighted in previous research (Archer & Hughes, 2011).

Teacher 3 was the one who had most registered cases of discussion (118 occurrences). Her teaching style seemed quite interactive, as she made students recurrently practice the whole lesson content interactively, first by modelling, then providing guided practice for the students, followed by their independent practices. To the contrary, Teacher 4 was comparatively more reserved and less interactive, resulting in less frequent occurrences of discussions in her class (only 10 times). Teacher 1 and Teacher 2 had 26 and 30 discussions, respectively, during their observed lessons. The following is a discussion excerpt from Teacher 1.

ሞ፡ ይህ ምንድን ነ ው? /jɨh mɨndɨnn näw/
T. What is this? (Teacher pointing to the picture of the former Ethiopian 1 birr note)
ተ. ብር ../bɨrr/
S. Birr
ሞ፡ ይህንን ብር ታውቁታላችሁ? አሁን ይሰራል? ገበያ ላይ አለ? /jɨhnn bɨrr tawuqutallaʃʃɨhu? ʔahun jisärrall? gäbäja lay ʔallä?/
T. Do you know this birr? Does it work now? Is it available on the market?
ተ. የ ለ ም… /jällämm/
S. It is not available.
ሞ፡ የ ለ ም፣ አ ይሰ ራ ም ፡ /jällämm! ʔajisäramm/
T. It is not available; it does not work.

In this example, the teacher tried to explain that the currency unit (Ethiopian Birr) was not available on the market, and that it is not in circulation anymore.

Summing up, although discussion seems to be one of the most frequently used explicit instructional moves in the data, there is variation in the frequency of its application by different teachers, suggesting that their teaching practices may differ.

Monitoring

There seems to be less variation in how often the teachers used monitoring as an explicit instructional move in the observed lessons. Monitoring in the data is usually associated with the teachers moving around the classroom closely observing the students' work, mainly when learners were given classwork in written or oral forms. Feedback and modelling were often integral parts of the teachers' monitoring efforts.

In monitoring the students' activities, for example, Teacher 3 instructed them to only raise their hands when she asked learners to answer questions. ''እጅ ብቻ ነ ው የ ሚ ፈ ል ገ ው፤ እጅ ብቻ…፤ -ʔɨʤʤ bɨʃʃa näw jämmɨfälligäw; ʔɨʤʤ bɨʃʃa… *I need only a hand; only a hand*''. Implicitly, the teacher here meant that the students should keep quiet and raise their hands only if they wanted to respond, which was a mode of monitoring. Teacher 2 gave once a quite bold instruction in her monitoring move: ''አሁን ጻፉ አላልሁም፤ ወደ ሰሌዳው ተመልከቱ፤ ሁላችሁም ደብተራችሁን ክደኑ፤ - ʔahun s'afu ʔlalhumm; wädä säledaw tämälkätu; hullaʃʃɨhumm däbtäraʃʃɨhun kɨdänu; *now, I did not say write; look at the board; all of you close your exercise books.*'' By saying this, she prohibited the students from undertaking tasks that she had not requested from them. When moving around the classroom while students were working on activities, Teacher 1 once said, ''ፊደል ያላጫችሁ፡ በዚህ

ማትሚር ምንም ፊደል የለም፤ ‘በ’ዎች እና ‘ቀ’ዎች እዚህ መደርደር አለባችው፤ -fidäl jalamät’t’aʧʧɨhu, bäzih mäsmär mɨnmm fidäl jällämm; ‘bä’wɔʧʧ ʔɨnna ‘qä’ wɔʧʧ ʔɨzih mäddärdär ʔalläbbaʧʧäw. *Those of you who did not bring fidäl, there is no fidäl in this row; the /bä’s/ and the /qä’s/ should be arranged here*’’. With this comment, she communicated that it was not appropriate to come to class without the fidäls. She also stated that the students should arrange the fidäls in front of them, so that they could use them as instructional inputs.

Our analysis shows that the teachers used monitoring in their classrooms, by posing questions, supervising the students’ work, issuing warnings or punishments for disruptions, and by directly reacting to the students’ behaviour to tell them what to do and not to do. Despite the teachers’ monitoring, students' attention levels varied throughout the lessons, which might suggest that it might be necessary with even more frequent monitoring moves to keep the attention of the learners in the first grade.

Discussion

In this study, we investigated how four Amharic teachers implemented explicit instructional moves in their Amharic reading lessons in grade one. Focus on the implementation of reading instruction is important as persistent underachievement in reading literacy among various mother tongue languages in Ethiopia has been a matter of concern, with related factors such as provision of instructional materials, teacher competencies, and learner characteristics contributing to this issue (Melese & Gulie, 2019; Mohammed & Amponsah, 2018; Mupa & Chinooneka, 2015; Muthanje et al., 2020; Piper, 2010c). Investigating teaching practises in early reading and explicit instructional moves implemented in reading instruction can give some insight into what is focused on and not when it comes to teachers’ scaffolding of students’ early reading. We will discuss the findings from this study, regarding the variation between the teachers when it comes to the degree of support they provide to the students through explicit instructional moves. Furthermore, it is relevant to discuss what types of explicit instructional moves are more frequently used in the observed classrooms, and how this might affect the students’ early reading development.

All four teachers in this study used the explicit instructional moves of modelling, guided practice, and discussion most frequently. All these three explicit instructional moves can be said to support the youngest students in suitable ways as they then get scaffolding in the teacher’s mediation through both language and modelling (Vygotsky, 1978). Through the guided practice, the teachers also help the students to get a structure in their learning by, for instance, recapping the previous lesson and connecting it to the current topic. The teachers’ scaffolding by guided practice might be an important support for the students’ understanding of reading as it connects the different components in the language. Direct explanation and independent practice were less common explicit instructional moves in the observed classrooms. One possible explanation for this could be that the students are young and that they need a closer guidance of the teacher within their Zone of Proximal Development (ZDP) (Vygotsky, 1978). The students at this grade level might not yet be ready to understand more direct explanations or work independently (Reutzel et al., 2014). Nigist (in review) states that the content components tend to appear more in association with the nature of the writing

system, rather than just bound only with the theoretical suggestions of early reading theory for content presentation. Therefore, variations in the content delivery at the implementations level might suggest that while teachers implement systematic explicit instructional moves as recommended for early grades (Archer & Hughes, 2011; Connor et al., 2004; Dean, 2007; Doabler et al., 2012; NRP, 2000; Reutzel et al., 2014; Rupley et al., 2009; Sedita, 2005) and the contents are not bound only to the theoretical suggestions of previous research (NRP, 2000), the poor achievement among Amharic learners may not solely be attributed to factors such as instructional implementations. This study may suggest that future research needs to examine in more detail the links and relations between teaching practices, instructional content presentation and students' reading achievement.

Another important finding from this study, which also points out the complexities of early reading instruction, is that there is great variability between the four teachers regarding which moves they are using and to what extent they implement them in their teaching. While some teachers prefer certain instructional moves, others use these moves less frequently. This variation could potentially have an impact on how effectively students engage with reading content and how they develop their skills in different classrooms.

In the context of teaching reading in alpha-syllabic languages like Amharic, the central instructional content has been identified as predominantly grapho-phonological, focusing on fidäls, a grapheme representing a syllabic combination. Thus, it might be presumed that isolated phonological awareness instruction may not be as relevant as in alphabetic languages due to the writing system's characteristics (Nigist, in review). Teaching phonological elements separately is not practical in such a system, as they do not stand as meaningful units alone. Our data confirm this content focus, as the learning activities in the observed classrooms were mostly connected to the fidäls. This approach to reading instruction in alpha-syllabic languages diverges from the studies conducted on reading instruction in alphabetic languages. Consequently, it might be important to take into consideration that while some findings in the research on reading instruction might be plausible universally, others might be specific to different writing systems. Internationally, different scholars suggest systematic explicit instruction for early grade reading classes as the most effective tool for improving the children's reading outcomes (Archer & Hughes, 2011; Connor et al., 2004; Dean, 2007; Doabler et al., 2012; NRP, 2000; Reutzel et al., 2014; Rupley et al., 2009; Sedita, 2005). However, it should be discussed whether this recommendation applies universally and can be valid in all contexts. This consideration of research findings for reading instruction not being universal across all writing systems, may initiate more research into teaching practices as applied to early reading instruction in apha-syllabic languages like Amharic.

Conclusions and Recommendations

Conclusions

Based on the findings, we can conclude that all the teachers have used explicit instructional moves. However, there are differences in how they use them and to what extent. This can have implications for how the students are scaffolded in the first grade reading

instruction. As we know, scaffolding is of great importance for young learners. The following conclusions are drawn based on the study's finding.

In most cases, the elements are implemented interdependently that a single activity can manifest different elements, so they are not purely sequential but appear simultaneously too. In addition, the content seems to have been delivered systematically as seen from the nature of the activities and the teachers' creativities.

Writing systems might influence content presentation; the prevalent lesson content throughout the instruction is found to be the grapho-phonological component here too. Moreover, as the fidäls are naturally syllabic components made up of consonant and vowel phonemes making a single symbol, phonological features were integrated with phonics and made the content grapho-phonological, which has happened because of the nature of the alpha-syllabary writing system the Amharic language uses. Therefore, we conclude that the feature of writing systems needs to be considered while preparing instructional materials.

Recommendations

As has been seen in this study, there were more elements related with lesson opening and closing, which might demonstrate that systematic explicit instruction is not limited only to the elements that appeared in the frame of analysis. It might embrace more elements, so it might be prone to change depending on the nature of the activities.

The nature of writing systems needs to be considered in the preparation and implementation of curricular and instructional content. Having these foundations in mind, this study also suggests further research on the factors that could affect child learning achievement such as correlation between writing systems and the learning achievement.

Limitation of the Study

This study is not a correlational study or an experiment confirming that the causes of the achievement failure are (are not) the materials' content or the teachers' implementations. In addition, it might not be generalizable as it is a case study.

Acknowledgments

The research in this paper was supported by the Norwegian Agency for Development Cooperation (NORAD) under the project "BEYOND ACCESS: Improving Quality of Early Years Reading Instructions in Ethiopia and South Sudan," grant number ETH-16/0028. The authors acknowledge and appreciate the support they received throughout the project's duration. The authors would also like to express their sincere gratitude to Moges Yigezu (Ph.D.) who has been the project's closest collaborating partner in Ethiopia. Next, the authors would like to acknowledge the kind cooperation of the Amharic teachers who allowed their classrooms for the observation. Furthermore, we would like to thank Mulusew Asratie (Ph.D.) and Abraha Asfaw (Ph.D) who have read and commented on the article. Their insight was instrumental throughout the production of this article. Finally, we would like to thank Kassahun Weldemariam (Ph.D) for all support in the project and laying the ground for the process towards the publication of this paper.

Ethical Statement

In order to ensure that the research is conducted only for academic purpose, a permit letter from Addis Ababa University, department of Linguistics & Philology was collected. Then, Hawassa Education Bureau was communicated. The schools were informed, afterwards. Explanation about the purpose of the study and the nature of the data to be collected from the classroom observations, was given to the teachers. Then, the participants were selected based on their consent. To ensure anonymity, the respondents were also not required to provide any private information.

References

Abera, S.. (2014). *Status and determinants to reading skill development: Grade four.* [Master's Thesis]. Addis Ababa University.

Allington, R. L. (2013). What really matters when working with struggling readers. *The Reading Teacher*, *66* (7), 520–530.

Anteneh, G., Ferede, T., Kelemework, Y. Berkesad, Y., Mikre F., Getachew, K. (2016). Early Ggrade Rreading Aassessment in the East Wollega Zone of Oromiya: A Sstudy on Mmother Ttongue Rreading Ccompetence of Ggrade 4 Ppupils. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, *27*(3), 1-19.

Archer, A., & Hughes, C. (2011). *Explicit instruction: Effective and efficient teaching*. The Guilford Press.

Castles, A., Rastle, K., & Nation, K. (2018). Ending the reading wars: Reading acquisition from novice to expert. *Psychological Science in the Public Interest*, *19(1)*, 5-51. https://doi.org/10.1177/1529100618772271

Connor, C. M., Morrison, F. J., & Katch, L. (2004). Beyond the reading wars: Exploring the effect of child-instruction interactions on growth in early reading. *Scientific Studies of Reading*, *8*(4), 305-336. DOI: 10.1207/s1532799xssr0804_1

Dean, E. O. (2007). *The efficacy of systematic, explicit literacy instruction in kindergarten and first grade.* [Doctoral dissertation]. Texas A&M University.

Doabler, C. T., Cary, M. C., Jungjohann, K., Clarke, B., Fien, H., Baker, S., Smolkowski, K., & Chard, D. (2012). Enhancing core mathematics instruction for students at risk for mathematics disabilities. *Teaching Exceptional Children*, *44*(4), 48-57.

Doabler, C. T., Baker, S. K., Kosty, D. B., Smolkowski, K., Clarke, B., Miller, S. J., & Fien, H. (2015). Examining the association between explicit mathematics instruction and student mathematics achievement. *The Elementary School Journal*, *115* (3), 303-333.

Dubeck, M. M., Jukes, M. C., & Okello, G. (2012). Early primary literacy instruction in Kenya. *Comparative Education Review*, *56*(1), 48-68.

Goldenberg, C. (2020). Reading wars, reading science, and English learners. *Reading Research Quarterly, 55*, S131-S144.

Hughes, C. A., Morris, J. R., Therrien, W. J., & Benson, S. K. (2017). Explicit instruction: Historical and contemporary contexts. *Learning Disabilities Research & Practice*, *32*(3), 140-148. https://doi.org/10.1111/ldrp.12142

Kemp, K. (2018). The Great Literacy Debate. *Professional Educator, Special edition*. Australian collage of Educators

Melese, S., & Gulie, K. (2019). The implementation of teachers' continuous professional development and its impact on educational quality: Primary schools in Fagita Lekoma Woreda, Awi zone, Amhara region, Ethiopia in focus. *Research in Pedagogy*, *9*(1), 81-94.

Mohammed, I., & Amponsah, O. (2018). Predominant factors contributing to low reading abilities of pupils at Elsie Lund Basic School in the Tamale Metropolis, Ghana. *African Educational Research Journal*, *6*(4), 273-278.

Mupa, P., & Chinooneka, T. I. (2015). Factors contributing to ineffective teaching and learning in primary schools: Why are schools in decadence? *Journal of Education and Practice 6*(19), 125-132.

Muthanje, K. A., Khatete, I., & Riechi, A. (2020). Instructional materials provision on learners' participation in early childhood development and education in public primary schools in Embu County, Kenya. *African Educational Research Journal*, *8*(2), 248-257.

Mwoma, T. (2017). Children's reading ability in early primary schooling: Challenges for a Kenyan rural community. *Issues in Educational Research*, *27*(2), 347-364.

National Reading Panel (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups*. National Institute of Child Health and Human Development.

Nigist Gedife. (in review). *The delivery of phonological awareness and phonics components in alpha-syllabic writing systems: the case of Amharic instruction in the grade one Textbook & Teacher's guide.* Education Research International, Hindawi Publications, London.

Odhiambo, G. (2008). Elusive search for quality education: The case of quality assurance and teacher accountability. *International journal of educational management*, *22*(5), 417-431.

Piper, B. (2010a). *Early Grade Reading Assessment*. Ethiopia: United States Agency for International Development USAID, Ethiopia

Piper, B. (2010b). *Ethiopia Early Grade Reading Assessment (EGRA): Data analytic report, language and early learning*. RTI international.

Piper, B. (2010c). *Ethiopia Early Grade Reading Assessment: Regional Findings Annex* RTI international.

Piper, B., Jepkemei, E., & Kibukho, K. (2015). Pro-poor PRIMR: Improving early literacy skills for children from low-income families in Kenya. *Africa Education Review*, *12*(1), 67–87. Pretorius, E. J. (2019). Getting It Right from the Start: Early Reading Instruction in African Languages. In N. Spaull & J. Comings (Eds.), Improving Early Literacy Outcomes (pp. 63 – 80). Brill. https://doi.org/10.1163/9789004402379_004

Pretorius, E. J. (2019). Getting It Right from the Start: Early Reading Instruction in African Languages. In N. Spaull & J. Comings (Eds.), Improving Early Literacy Outcomes (pp. 63 – 80). Brill. https://doi.org/10.1163/9789004402379_004

Read M&E (2020). *Reading for Ethiopia's achievement developed, monitoring and evaluation (READ M&E): Early Grade Reading Assessment (EGRA 2018) Endline Report*.

Reutzel, D. R. (2015). Early literacy research: Findings primary-grade teachers will want to know. *The Reading Teacher*, *69*(1), 14-24.

Reutzel, D. R., Child, A., Jones, C. D., & Clark, S. K. (2014). Explicit instruction in core reading programs. *The Elementary School Journal*, *114*(3), 406-430.

Robledo, A., & Gove, A. (2018). *What works in early reading materials: Knowledge and practice in international development*. RTI, International.

Rupley, W. H., Blair, T. R., & Nichols, W. D. (2009). Effective reading instruction for struggling readers: The role of direct/explicit teaching. *Reading and Writing Quarterly*, *25*(2-3), 125-138. https://doi.org/10.1080/10573560802683523

Sanden, S. (2012). Independent reading: Perspectives and practices of highly effective teachers. *The Reading Teacher 66*(3), 222-231. https://doi.org/10.1002/TRTR.01120

Sedita, J. (2005). Effective vocabulary instruction. *Insights on learning disabilities*, *2*(1), 33-45.

Seidenberg, M. S., Borkenhagen, M. C., & Kearns, D. M. (2020). Lost in translation? Challenges in connecting reading science and educational practice. *Reading Research Quarterly, 55*(S1), 119-130.

Shanahan, T. (2005). *The national reading panel report: Practical advice for teachers*. Learning Point Associates.

Vygotsky, L. S. (1978). *Mind in society: Development of higher psychological processes*. Harvard University Press.

Wilkinson, I.A.G., & Son, H.E. (2011). A dialogical turn in research on learning and teaching to comprehend. In M.L. Kamil, P.D. Pearson, E.B. Moje, & P.P. Afflerbach (Eds.), *Handbook of reading research, (Vol. 4,* pp. 359–387). Routledge.

Developing young learners' reading competence in Ethiopia: A critical review of the Ministry of Education's guidelines for developing supplementary reading materials

Samuel Belayneh Kame
Ph.D. Candidate, Department of Linguistics and Philology, Addis Ababa University; Lecturer, Hawassa College of Teacher Education

Mulugeta Tarekegne Tsegaye (Ph.D.)
Assistant Professor, College of Humanities, Language Studies, Journalism and Communications, Addis Ababa University

Mona Evelyn Flognfeldt (Ph.D.)
Professor in English, Department of Primary and Secondary Education, Faculty of Education and International Studies, Oslo Metropolitan University

Margareth Sandvik (Dr.philos.)
Professor in Norwegian, Department of Primary and Secondary Education, Faculty of Education and International Studies, Oslo Metropolitan University

Abstract

This study presents a critical review of the official guidelines established in 2016 by the Ethiopian Ministry of Education offering detailed criteria for the development and selection of supplementary reading materials (SRMs) for primary school learners to enhance their reading competence. Despite interventions during the last couple of decades to enhance reading performance in Ethiopia, sufficient improvement has not been seen. The study examined the extent to which the Ministry's guidelines are conducive to appropriate development of students' reading fluency and reading comprehension with a focus on Grades 1–4. We analyzed the criteria in view of current research in the science of reading, building also on theories of multimodality and text linguistics. Findings show that the SRM selection and development guidelines align with a traditional *simple* view of reading (SVR). We argue that developing and selecting SRMs based on an *active* view of reading, highlighting a learner-sensitive *affective* dimension of learning, has the potential to make SRMs more motivating and thus more conducive to young learners' reading development. With this perspective on the SRM guidelines, the article ends with a reflection on the potential pedagogical implications of these new insights as part of reading teachers' professional knowledge base.

ARTICLE HISTORY
Received: 16 November, 2023
Accepted: 22 May, 2024

KEYWORDS
Supplementary reading materials (SRMs), active view of reading, affective dimension, motivation

Introduction

During the last three decades, Ethiopia has made significant efforts in the field of schooling. Increased access to primary education has been an important first step. Between 2004 and 2018, primary enrolment rose from 49% to close to 95%. However, according to UNICEF, the net enrolment to primary education in the school year 2021-2022 decreased to 88.7% (UNICEF Ethiopia, n.d.). Rates fluctuate from year to year; conditions like the

CONTACT Samuel Belayneh Kame samibelayneh@gmail.com

DOI: https://dx.doi.org/10.4314/bdje.v24i2.4

COVID-19 pandemic, national conflicts, floods, droughts, and other contextual factors have an impact on the general educational situation.

With the process towards universal access in motion, programs and projects with the aim to ensure *quality* in education have been introduced, with funding and consultancy from USAID and other donors. The development of teacher education, in-service professional development, mother tongue curriculum and instruction, textbooks and supplementary reading materials with appropriate grade-level progression, teacher guides, and various learning materials were some of the targeted areas to ensure quality of education. Central initiatives have been GEQIP (General Education Quality Improvement Program) since 2008, GEQIP-E with its focus on equity, and ESDP (Education Sector Development Plan), the current phase being ESDP-VI for 2020–2025 (GPE, 2024; MoE, 2021). However, despite interventions and actions to enhance primary students' reading performance, sufficient improvement has not been seen (Haile & Mendisu, 2023; USAID, 2019). As a case in point, around 90% of 10-year-old children are found to be lacking basic reading skills (GPE, 2024). In the endline evaluation of the EGRA (Early Grade Reading Assessment) project in 2018, 60% of the students demonstrated insufficient reading skills after Grade 3, a combination of non-readers, i.e., students with zero scores (28%), and students "reading slowly with limited comprehension" (32%) (USAID, 2019, p. 66). Stagnating reading development is a deplorable situation, not least because the main concern in Grades 2 and 3 is that students "learn to read", to prepare them for Grade 4 and continued schooling, where the focus will progressively be "reading to learn". There is also the risk of students dropping out of school altogether between lower and upper primary.

The state of affairs described here is doubtless a complex one, with a variety of interacting actors, factors, and contextual realities at work. In this article, our purpose is to explore one element in the educational ecology: the nature, role, and function of supplementary reading materials (SRMs) and the guidelines issued by the Ministry of Education for their development and selection. SRMs are a valuable offer to children who do not have access to a rich array of colorful children's books. With the launch of a new curriculum for Ethiopian schools in September 2022, new rationales for SRMs have been conceptualized; they have still been intended not only to supplement, complement, and enrich textbooks, but also to contribute independent reading and learning (MoE, 2020, p. 64). Moreover, a clear strategy is articulated in MoE (2021) i.e., to "encourage publishers and writers to produce supplementary reading materials on different topics, appropriate for school levels which deepen positive values and national unity in diversity" (p. 52).

In the MoE guidelines for developing supplementary materials, a basic distinction is made between *decodable* SRMs and *leveled* SRMs. Decodable and leveled SRMs are intended for use both at school with teacher scaffolding, and as practice resources for learners to use independently. Decodable books target specific patterns of spelling, letter–sound correspondences that are taught, including sight vocabulary and some high-frequency words that learners need to know, thus addressing issues of phonics, phonemic awareness and word recognition. These books are primarily aimed at Grades 1–2. Leveled books, by contrast, comply with a levelling system to ensure gradual mastery of difficulty throughout schooling, in accordance with the criteria set out in the guidelines. These books may contain different

stories or more informational or expository texts. Our focus in the following analysis will be on leveled SRMs.

Furthermore, the construct, "supplementary material", needs to be deconstructed. What are the SRMs meant to supplement? The logical response would be that basic reading-pedagogical materials and processes are in place, but that there is a need for consolidation resources. Ideally, the use of SRMs is meant to enhance reading skills development, building on curriculum-based reading instruction that takes place in the classroom organized and supported by the teacher.

The MoE guidelines are to be used by the authors and validators of SRMs. The guidelines comprise seven criteria pertaining to design and physical characteristics on the one hand (font size, illustration, text density, spacing); and linguistic properties on the other (sentence length and type, words and syllables). Other issues include advice about avoidance of bold or italic text, left text alignment, considerations about the use of color, details about binding and paper quality (MoE, 2016). All these criteria and the "other issues" align with a research-based report on best practices for developing supplementary reading materials (USAID, 2014).

A set of general directions is presented in the guidelines, of which the last three concern early primary Grades 1–4. They state that SRMs for this group of learners should be written by skilled authors who know the languages learners speak and are instructed through, and who know how to reach groups of young learners. Next, the general directions define reading materials as comprising fiction or informational texts either created in local languages or adapted to these languages. Finally, the MoE mandates that materials for the early grades must follow a leveling system, with the aim to "meet students' instructional needs" (p. 4).

Thus far, teaching materials have been developed by local writers who are primary school teachers and teacher educators from colleges and universities. In some cases, educational officers from regional educational bureaus have been involved in the process, but without a formal background in SRM development. The question is whether these writers represent "authors who are skilled and well experienced in writing materials for early grade children", one of the general directions in the guidelines (p. 3). Since there is a great need for materials to supplement textbooks used in the classroom, the guidelines for the development and selection of such materials contain criteria with very detailed graded descriptors.

Summing up, the problem addressed in our study is to what extent SRMs based on the MoE guidelines are in fact conducive to reading development for early-grade learners in Ethiopia. Central issues are addressing the question of whether they align well with the texts they are supposed to supplement, and whether they have appropriate and motivating content for young learners. And, at a more theoretical level, the question is whether they concur with recent research within the science of reading. By critically exploring the guidelines, we aim to contribute new insights to enhance teachers' reading-pedagogical knowledge base and practice. Important empirical issues such as the reception of SRMs among children and the systematicity of the literacy curriculum are beyond the scope of this article.

Theoretical Orientation

Meta-analyses of research published in influential language-pedagogical journals, for instance; in *The Reading Teacher*, have identified four salient theories that explicitly or implicitly underlie studies of literacy development (Moody et al., 2018). The theories identified are socio-constructivist/sociocultural theories, schema and psycholinguistic theories, motivation theory, and dual coding theory, and combinations of these. In the following, all four will be presented as relevant in the way they variously frame the topic of our study.

Discussions about the presence or absence of teacher scaffolding, which is a vital part of learning-centered reading instruction in the classroom, clearly relates to sociocultural theory, which highlights the value of collaboration, that is, meaning construction in interaction with others. Schema theory refers to the cognitive and conceptual structure in our minds and how knowledge is represented. This theory is relevant when we wish to account for phonological awareness and its relation to decoding skills, and for the importance of learning sight vocabulary for easy retrieval. It is also relevant in connection with processes of activating prior knowledge, which is central to the process and outcome of reading comprehension.

Motivation theory as it applies to reading development "posits that readers become engaged with a text when it aligns with their goals, desires, and objectives within a particular social milieu" (Moody et al., 2018, p. 6). These are affective aspects of learning, such as engagement, interest, and aesthetic attraction. In addition, two key motivational processes that affect cognition are self-efficacy and self-regulation, according to Schunk and Zimmerman (2007). These are both highly relevant in connection with personal confidence and strategy use and, as we have seen, implied when SRMs are meant to "encourage independent reading and learning" (MoE, 2020, p. 64).

Finally, dual coding theory has to do with the fact that our minds process information from the environment via two independent mental systems, one being verbal and the other non-verbal. The verbal system deals with language, and the non-linguistic system has to do with visual semiotic resources, among other non-verbal stimuli. In our case, the issue of illustrations and its relation to the verbal text is essential. Visual support is often considered an asset in teaching and learning contexts. When it comes to its relevance in connection with reading comprehension, a dilemma may occur in that pictures can detract the reader's attention away from print. This is less than desirable in the early phases of reading development.

Turning now to theoretical contributions about aspects of reading itself, a simple view of reading (SVR) was proposed by Gough and Tunmer (1986) and developed further by Hoover and Gough (1990). This view appears to be strongly implied by the MoE guidelines. In the following paragraphs, we will give a brief description of the SVR and move on to present recent alternative views of reading. We will also present some insights from text linguistics and multimodality theory, including a brief account of the construct of readability.

The Simple View of Reading (SVR)

The SVR comprises two related skills, namely decoding and comprehension (Gough & Tunmer, 1986; Hoover & Gough, 1990). It has gained immense support for its claim that *decoding* and *listening comprehension* together predict reading comprehension. For beginning readers, decoding involves matching written letters with sounds and blending the sounds together to form a word, whereas for more experienced readers, decoding refers to efficient word recognition. In fact, in later studies, decoding has been reconceptualized as *word recognition* and listening comprehension as *language comprehension* (Hoover & Tunmer, 2020). Comprehension is the ability to take in lexical information (i.e., semantic information at the word level) and derive sentence and discourse interpretations.

Catherine E. Snow, an influential reading and literacy researcher, explained how the SVR has gained its robust position: it contributed to explaining reading difficulties at a time when many children did not receive explicit instruction in decoding; it was thus seen as a request to emphasize phonics instruction (Snow, 2018). Snow also explained that disagreements exist among reading research scholars, although no one would disagree that decoding and listening skills are important factors determining the outcomes of reading comprehension. The disagreements that exist are related to (a) the question of how much of the variance in reading comprehension can be explained by the product of decoding and listening comprehension, (b) the nature of the contributions of decoding and comprehension, (c) the best methods for assessing listening and oral language skills for testing learning models, and (d) the degree to which the predictors share variance (Snow, 2018). Snow's main objection to the SVR was its exclusive focus on the reader, to the extent of ignoring the content and structure of the text, and its adequacy for experienced readers rather than beginners.

Alternative models to the SVR were presented in Snow (2018), namely the Complete View of Reading (CVR), which accounts for contributions from both the reader and the text, plus an extension of the CVR. The CVR, thus reflects the developmental shifts inherent in the increasing levels of challenge represented by the texts that students are expected to understand during primary school grades, and the extension refers to tasks and activities undertaken by older learners and adults. Thus, the alternative views extend beyond the reader and take textual characteristics into account, i.e., the level of difficulty, genre, and writers' intentions and perspectives.

The Active View of Reading

Duke and Cartwright (2021) offer an alternative view of reading. They use the construct "reading" to mean "reading comprehension". The authors admit that their model of reading is a "reader model" (p. S33), acknowledging that other relevant factors are the texts involved, tasks, and the sociocultural context. The significance of the adjective "active" in their model of reading lies in their inclusion of an *agentive* component beside the two that are included in the SVR, namely word recognition and language comprehension. This additional component is "active self-regulation", which includes properties like motivation and engagement, executive function skills, and strategy use. An example of the last factor is the use of word-recognition strategies, comprehension strategies, vocabulary strategies, etc.

Executive function skills are cognitive self-regulatory processes used by a reader when tasks are complex and goal-directed: cognitive flexibility, working memory, and inhibitory control, i.e., the ability to be selective about what to devote one's attention to. Katzir et al. (2013) argued that future studies should examine how readers monitor their comprehension and learning process while reading a text and how disfluency affects such higher-level processes of monitoring.

In addition to the three components mentioned so far, Duke and Cartwright (2021) argue that word recognition and language comprehension, which have been identified as separate skills in SVR, are not entirely separate; there is an overlap between them. In fact, the authors add "bridging processes" to their model of reading, and this fourth component includes features like print concepts, reading fluency, vocabulary knowledge, morphological awareness, and graphophonological-semantic cognitive flexibility. This last characteristic refers to letter-sound-meaning flexibility. In sum, reading is the outcome of the reader's active self-regulation working on aspects pertaining to word recognition, language comprehension and the bridging processes between the two. The value of Duke and Cartwright's (2021) contribution is the clarity and systematicity of their exposition. Moreover, the authors are able to justify the importance of each component in their model by referring to research studies that demonstrate how instruction, taking these into account, leads to students' improved reading.

Contributions from Text Linguistics

Duke and Cartwright (2021) recognize that "[r]eading is also impacted by text" (p. S33), it is important to keep in mind that verbal content that is consumed by readers is most frequently more than single words and sentences. Text linguistics can contribute to highlighting the challenges in verbal text comprehension and, thus open up for potential additions to the SRM guidelines. We do not wish to challenge that urgency in the need to develop decoding skills in early graders is vital. However, insights into how texts are organised and how different text elements have a role to play as parts of a coherent whole should be part of any reading teacher's knowledge base (Van Dijk, 1980, 2008; Halliday & Hasan, 2014). Therefore, the text linguistic perspective is relevant in an examination of the Ethiopian guidelines, and it is also a recognized perspective for determining the readability of a text (Bailin & Grafstein, 2016). If the guidelines for SRMs were based on principles of coherence and a well-formed structure for educational texts, they could help authors shape engaging and comprehensible texts for different grade levels.

Schema-theoretical and Constructivist Perspectives

When schema theory is applied in reading research, important features are readers' previous experiences and background knowledge and the relevance of these to representations or constructions in readers' minds. For instance, the construction-integration model indicates that reading is composed of the propositional representation of a text and the reader's background knowledge, often understood as cognitive schemata of previous experiences (Kintsch, 1998; Kintsch & Van Dijk, 1978). The model highlights the process by which a reader integrates the information gained from a text with their prior knowledge to

form a mental representation of the text's meaning. Among the more current developments in the field, schema theory has been shown to be relevant when used in prereading activities for struggling readers (Little & Box, 2011). Further, an experimental study has shown that having or not having established schemata is crucial for reading comprehension among college students (Liu, 2015).

Furthermore, Langer (2005), and Langer and Nicolich (1981), and Snow and Sweet (2003) adopted the constructivist approach and stated that readers *construct* meaning based on the information in a text and the information readers bring with them, that is, a reader's background knowledge. A situational model takes the constructivist model a step further and considers text comprehension to be a dynamic and cumulative process that highlights a reader's growing knowledge about a topic (Kintsch, 2009; Tapiero, 2007).

Multimodality

In their approach to multimodality, Kress and van Leeuwen (2021) pointed out that text and illustrations are distinct modes of communication, with their own expressive possibilities and limitations. When the two modes are used together, each mode carries only a part of the meaning or "informational load" (Kress, 2003, p. 141). The visual mode of illustrations has the potential to carry additional information, which might have a significant impact on readers' responses to a text. It is important to consider how illustrations interact with written text, as this plays an important role in improving young readers'comprehension (Wyile, 2001; Lewis, 2001; Nikolajeva & Scott, 2000; 2006).

Readability

A quantitative perspective on illustrations, words, syllables, sentences, and graphic elements, such as font size, text density, and spacing permeates the criteria in the guidelines for SRMs. This attempt to establish levels of progression by applying a kind of quantification of readability can be traced back to the 1970s in Europe with a considerable interest in the readability of texts, mainly in library and informatics studies and the psychology of reading (Falkenjack et al., 2013). Different measures of readability, including readability formulas and tests, were established with the aim to advise users in the selection of texts. In Scandinavia, a readability index called LIX was developed by Swedish researcher Björnsson (1968). Readability identified as LIX could be measured in every text if the following data were inserted in the formula: the length of the sentences and the percentage of long words (defined as words with more than six letters). The formula is as follows:

$$LIX = A/B + (C \times 100)/A$$

A = the number of words

B = the number of sentences (defined by period, colon, punctuation, or by capital initial letter)

C = the number of long words (> 6 letters)

A low LIX value indicates readable text, while a high value indicates the opposite. LIX values are usually under 25 for children's picture books, 25–30 for simple texts, 30–40 for general fiction, 40–50 for informational articles, 50–60 for other non-fiction texts such as

newspaper articles, and above 60 for subject-oriented texts such as research and law discourse (Bram, 1977).

A low LIX score, which denotes high readability, does not guarantee that the text is comprehensible. Among other things, readability measures are computed irrespective of how a text is structured, the proportion of unknown words, or the requirements for comprehending different sections of the text. Neither sentence construction nor inferencing – aspects that might cause challenges in comprehension – are considered. Some types of readability indexes may capture a few of these conditions, but in general they are nothing more than simplified measures of overall readability. However, a text-linguistic perspective would consider both sentence construction and inferencing.

It is also worth noting that a text becomes longer as readability increases, even when the information conveyed remains the same. This is because, if difficult domain-specific words are retained, the number of easy-to-read words must be increased to improve readability. Still, it may be possible to replace some of the difficult words with simpler ones to avoid increasing the length of a text. A long text will negatively affect LIX, indicating that the material is difficult, while easy-to-read words will make the text more comprehensible.

Interestingly, the readability of texts with the same LIX scores can widely differ based on a reader's knowledge of the topic and how the reader experiences or approaches the text. It is of great value for readers' comprehension of the text if they consider the text exciting, which often happens if it is of good quality, simple, and engaging (Lundetræ & Walgermo, 2021). A final qualification is that readability formulas are partly language-specific (Oakland & Lane, 2004); implications for the Ethiopian context, therefore, are difficult to determine.

The aim of this paper was to critically review the guidelines from the perspective of research in the areas of reading and reading development, text linguistics, and multimodality. The study is framed by the following research questions: (1) What are the issues constituting the minimum quality standard in the MoE guidelines for SRMs? (2) How is reading comprehension conceptualized in the guidelines?

The findings of the first research question form the basis for exploring the second question. The criteria listed in the guidelines are examined in relation to existing research on reading comprehension and reading development. Practical-pedagogical implications of our findings for teachers, authors, and readers are suggested in the concluding part of the article.

Methods

The method applied in this study is a critical analysis of a central practical-pedagogical document, i.e., the MoE guidelines for developing supplementary materials in support of reading skills development in primary school. We considered the general directions for all grades and types of SRMs as well as the criteria for each grade, primarily focusing on the seven criteria: font size, illustration, text density, spacing, sentence length and type, words and syllables, and what is referred to as "other issues".

We do not understand reading as only involving decoding, i.e., word recognition as a result of the application of phonological awareness, letter-sound matching, and comprehension; rather, we extend our perspective to include texts of increasing levels of challenge from Grade 1 to Grade 4. We first apply a text-linguistic approach which focuses

on how texts are structured. The visual mode is then integrated, and we perceive images as generally having more than one function, i.e., they do not only depict the same content as the verbal text but may also widen and even contradict it. Throughout the analysis, comparisons are made with children's picture books since these books and narrative SRMs are types of children's literature intended to be read for interest and pleasure.

Having broadly presented the theoretical perspectives based on which we will critically review the guidelines in this article, let us introduce our analysis with a general observation regarding SRMs. These texts can be seen as constituting a text type of their own. They are not curriculum-based textbooks; nor are they picture books. SRMs are defined by their function – their aim is to provide a supplement to other reading materials. In other words, SRMs are sources of intentional literature, both narrative-based and subject-oriented, and they may include expository texts or information texts. The guidelines for SRMs are constructed to facilitate text production, which implies that authors follow a set of norms that govern what texts for Grades 1–4 are to be composed of. The guidelines include specific and detailed requirements organized according to a desirable progression. Consequently, they can be seen as enacting the MoE's efforts to meet the expected needs of a typical reader at each of the four early-grade levels.

The general directions of the guidelines state that SRMs should support or enhance educational curricula (MoE, 2016). This means that SRMs supplement the textbooks used in classrooms, with the intention of providing reading experiences, practice, and strengthening children's knowledge about the world. There are several differences between children's literature and books that serve as SRMs, both in terms of the production process and how the texts are written. A major difference is that children's books are written by authors enjoying creative freedom, whereas authors of SRMs are constrained by relatively strict quality standards.

The general directions mention that it is important for authors of SRMs to be skilled and experienced in writing materials for children in the early grades (MoE, 2016, p. 4). Moreover, they are required to know the languages used for classroom instruction and used by the students themselves. It is also mentioned that SRMs should include both fiction and non-fiction texts for all grades.

Writing SRMs in accordance with the guidelines established by the MoE entails that authors must refrain from developing their own style and using a range of rhetorical expressions, including illustrations. SRMs are supposed to strengthen a learner's reading skills and knowledge about the world. Such books are at risk of being purely instrumental and based on a predefined set of expected descriptors for reading development. Decodable books are instrumental in that they are constructed with a phonics rationale. Leveled books, on the other hand, are supposed to be engaging and interesting. There is a potential dilemma involved in commissioning texts with a mandated content and simultaneously expecting engaged reception. Motivated reading is an aim and an important aspect for children's reading experiences, both when they are being read to and when they read independently.

Results and Discussion

The guidelines posit seven criteria for developing SRMs: font size, illustration, text density, spacing, sentence length and type, words and syllables, and 'other issues' (MoE, 2016). Every grade from first to fourth has its own specifications as well as A and B levels, corresponding to the two halves of a school year. This leads to a detailed set of specifications and eight levels for each criterion. Each of these criteria will be explored and discussed in the following sections.

Our analysis in this paper is a critical reading of what the guidelines say based on research in text linguistics and the current field of reading and reading development. The guidelines outline both legibility and readability. Legibility is a typology criterion that has to do with the ease with which type characters can be read, while readability is related to linguistic and content-oriented issues. Criteria clearly related to legibility are font size, text density, and spacing.

Font Size

The guidelines provide detailed recommendations for the use of either Latin or Geeze fonts, which can be seen as an indication of the importance of these fonts for SRMs. Font size is mandated to decrease with subsequent grade levels. Table 1 illustrates how this works out in practice for each grade level. For the Latin font, one vowel and one consonant have been selected; since Geez alphabets are not phonemic but syllabic, the initial two alphabets, ሀ and ለ, have been chosen.

Table 1

Grade Levels and Font Sizes

Grade Level and Font Size	Latin Font (Times New Roman)	Geeze Font
Students below Grade 1: minimum 30 pt.	Aa Bb	ሀለ
Grade 1, Level A: 24–26 pt. (Example in 24 pt.)	Aa Bb	ሀለ
Grade 2, Level A: 22–24 pt. (Example in 22 pt.)	Aa Bb	ሀለ
Grade 3, Level A: 16–18 pt. (Example in 16 pt.)	Aa Bb	ሀለ
Grade 4, Level A: minimum 14 pt. (Example in 14 pt.)	Aa Bb	ሀለ

The perceptual features of words and how they affect children's comprehension have scarcely been investigated compared to research on linguistic, cognitive, and metacognitive skills. However, two studies have focused on this textual aspect. Katzir et al. (2013) demonstrated that font size has implications for children's comprehension. Font size, line length, and spacing were manipulated in an experimental study involving second and fifth

graders, and the results showed that second graders received lower comprehension scores as font size decreased (Katzir et al., 2013). In contrast, a decrease in font size led to higher comprehension scores among fifth graders (Katzir et al., 2013). The researchers were careful when generalizing these results, as they had not controlled for reading time, and students with good comprehension skills often read more fluently.

The second study of the perceptual properties of text-related reading comprehension investigated how reading comprehension starts with understanding text design and information. Reading rate and reading comprehension were assessed as measures of text quality, whereas font size, font type, and font formatting (e.g. italics and bold) were measures of text legibility (Sheedy et al., 2005). The following conclusions were reached: First, a font size larger than Verdana 10 pt does not improve the legibility of words or letters. Second, the most legible texts are those in sans serif fonts. Third, a font enhanced with bold is more legible than the default text. Finally, the use of italics makes the text less legible.

The two studies presented above indicate that font size matters and that young students need a reasonably large font size. As students grow older, smaller font sizes are recommended. Font size is indeed an essential criterion for developing alternative guidelines for SRMs.

Illustration

The guidelines show a clear understanding of the importance of illustrations for young students. Accordingly, they highlight that "supplementary reading materials should prioritize students' attention to print and use illustrations to highlight core features of the text" (MoE, 2016, p. 5). The function of illustrations is a combination of supporting print content and providing aesthetic pleasure or triggering engagement.

The guidelines cover three aspects of this criterion: the number of illustrations per page, the level of detail in the image, and the relationship between the meaning of the image and the meaning of the verbal text. The guidelines recommend one illustration per page for Grade 1, one illustration every second page for Grade 2, and one illustration every third page for Grade 3. For Grade 4, one illustration per chapter is recommended. It is mentioned that the level of detail should increase as students grow older, but this is not explained further. Moreover, the relationship between the meaning of an illustration and the meaning of printed text will change as children's reading skills develop and their reliance on visual support for understanding becomes less important.

In picture books, illustrations are important for developing and conveying meaning, whether they display the physical appearances of characters and the unfolding events in a story (Wyile, 2001), enhance the atmosphere of a story (Lewis, 2001), or show a discrepancy when compared with the words, thus facilitating an understanding of a larger meaning (Nikolajeva & Scott, 2000).

With regard to picture book theory, Nikolajeva and Scott (2000; 2006) outlined the interplay between illustrations and written text as either symmetrical, implying that the illustration and verbal text convey approximately the same message, or an enhancing or complementary function, which means that the additional information provided by the text or the image may be minor or very different (Nikolajeva & Scott, 2000).

The first type of relationship is addressed in the guidelines, i.e., the verbal and non-verbal text conveying the same information; the second relationship is not. The focus is on the supportive role of illustrations and their level of detail. Importantly, it has been documented in research on language comprehension and language learning that images have a clear impact on reading among children aged 5–6 years (Sandvik & Spurkland, 2009). In a small qualitative study involving six children aged 11–14 years, illustrated and non-illustrated books were compared. The illustrated book was found to engage readers more deeply and critically than the non-illustrated one (Aggleton, 2017).

However, not all researchers agree on the positive impact of illustrations in children's literature. Elster and Simons (1985) argued that illustrations can impair readers' comprehension and recall of the information presented in the verbal text. They claimed that readers would be distracted by the pictures, and, consequently, their reading skills would be affected. This is not the only caveat; over-reliance on pictures for comprehension might detract from a concentration on print. This is an unwelcome risk if the main objective is to enhance learners' decoding skills. This implies that illustrations are intended to be purely informative at the beginning, to support readers' comprehension of the written text. Thus, the guidelines seem to play down the aesthetic role of illustrations as well as the fact that illustrations can challenge readers by contradicting or extending written text. However, this fact is justified in the description of the different levels with respect to learners' perceived needs.

In the "Other Issues" section of the guidelines, the use of colors is commented upon: "Black and white, four color and full color materials appear to be equally effective in teaching children to read. However, using color in early grade materials may motivate children to enjoy reading" (MoE, 2016, p. 10). From the guidelines, it is also clear that colored books are expensive to produce, and in a school context where there is a lack of reading materials, the decision about what to prioritize is clear: increasing the number of books is more important than making them attractive using colors. To conclude, we wish to emphasize that the guidelines are not explicitly aligned with theoretical, research-based knowledge about multimodal texts and their role in reading comprehension and motivation to read. One reason may be that in Grades 1–4, the role of any semiotic resource is primarily to support comprehension, avoid distractions, and enhance emergent reading capacity. In this way, readers will not have to rely on their own attention-controlling strategies (Duke & Cartwright, 2021).

Text Density

According to the guidelines, text density refers to the number of words per line and the number of lines per page. Low densities are recommended for younger students, subsequently increasing with grade level. Implicitly, the lengths of long words affect text density, with the occurrence of long words resulting in fewer words per line.

Text density for Grade 1 (Level A) starts with 4–6 words per line and 4–6 lines of text per page. If the textual material has long words, each line is reduced to 2–6 words and/or 1–2 sentences per page. For Level B, the recommended words and lines of text per page increase by two to 6–8 words per line and 6–8 lines per page. For grade 2 Level A, both the words per

line and lines of text per page increase to 8–10. Level B requires more than 10 words per line and lines of text per page.

Text density increases gradually with each grade level, and for the third grade, the quantifications are given in paragraphs: 1–2 paragraphs for both Level A and Level B, and a paragraph is to have 2–4 sentences. For Grade 4, a paragraph is required to have 3–5 sentences for Level A and 3–6 sentences for Level B. The number of paragraphs per page is not specified but should probably be more than one. Furthermore, the guidelines specify the number of chapters required for each type of book for Grade 4. A narrative book is required to have 1–3 short chapters, while an expository book should have 4–5 short chapters. However, the guidelines do not mention anything about the length of a short chapter. For some criteria, the question arises whether the leveling system is appropriate, or whether the step from one level to the next is too steep given the unique Ethiopian context.

In Katzir et al.'s (2013) experiment (see the section about "Font Size" above), line length was a perceptual factor that had a negative impact on the reading comprehension of first graders, whereas it had no effect on fifth graders. This result is relevant for our examination of the guidelines, and we are positively inclined towards requirements that take line lengths into consideration. However, the detailed requirements for the eight levels in the guidelines are not justified by reference to research and create a rather challenging system of quantification for authors to follow.

Authors of children's literature may seem to be oriented towards some norms of words per line and number of lines per page, which they adjust according to children's age. This norm orientation may come from the publisher, or it may come from knowledge about how other authors of children's literature have solved the question of text density. However, such norms are implicit and not stated in official documents.

Long words are not defined in the guidelines, but their existence is consequential. This is a flawed specification in guidelines that otherwise give quite detailed specifications, although not always convincingly. The frequency of long words is partly language-dependent, in that a language may have long words due to their typological status as a synthetic language.

The lengths of narrative and expository books are specified without explicit connection to the content and topic being treated. Therefore, we may expect that an exciting narrative with an intricate problem would require more pages than an animal fable or an everyday story about a routine shopping trip. The same applies to expository texts. Determining the number of chapters restricts authors from developing the plots of their stories and from presenting the background knowledge they find relevant to expository texts. However, this critical reflection may appear overly theoretical if the realities of classroom routines of 40-minute lessons are taken into account.

Spacing

Spacing concerns the distance between lines and between words. Materials for students in Grade 1 are required to have a double space between lines and three letter spaces between words. For Grade 3, a double space between lines and two letter spaces between words are required. For Grade 4, the spacing between lines should be 1.5, while the space between words should be one letter, which is the normal spacing.

Katzir et al. (2013) showed that line spacing had no effect on the reading comprehension of second or fifth graders. Thus, research has been conducted, but the results have been inconclusive so far. However, as observed above, space is among the set of norms that the authors of children's literature are oriented towards.

Sentence Length and Type

In the guidelines, sentence length and sentence type are described separately, although these two criteria are closely interrelated. Therefore, we examine them separately below. Only a few criteria in the guidelines address text properties that lie beyond the boundary of the sentence and encompass the text in its entirety.

Sentence Length

For Grade 1 (Level A), 2–6 words per sentence are recommended. The length should then increase progressively with each subsequent grade and level. If a language has long words with many morphemes, the average number of words per sentence for this level is 4, but it should not be more than 9. For Grade 1 (Level B), an increase in the number of words is recommended, but the average should not be more than 11 (for example, when dialogue is used), which might indicate an understanding that direct speech is easier to comprehend than indirect speech. Furthermore, the recommended lengths are 14 words for Grade 3 (Level A), 17 words for Grade 3 (Level B), and 20 words for Grade 4 (Level A). For all grades and levels, the average number of words per sentence is listed, so we assume that a certain degree of freedom is given to the authors.

The lengths of sentences and paragraphs, as well as syntactic complexity, affect how easy or difficult it is to understand a text (Cutting & Scarborough, 2006; Scott, 2009). Several studies have shown that syntactic competence and syntactic awareness are correlated with and contribute to reading comprehension in primary school (Brimo et al., 2017; Gallagher et al., 2000; Gaux & Gombert, 1999; Poulsen & Gravgaard, 2016; Scarborough, 1990). The guidelines for SRMs indicate that sentence length is one of the predictors of the decodability of a text. The other predictors are average word length and average number of sentences in a text (the length of the text). These features indicate the level of difficulty in decoding the text but not whether the content is easy or difficult to understand (Staphorsius & Krom, 2013), which we find regrettable. Therefore, we claim that the guidelines establish a set of criteria separate from contextual factors; they are applicable to the development of SRMs, regardless of topic and genre.

Sentence Type

For Grade 1 (Levels A and B), the requirements state that sentences should follow a very simple structure (SVO/IO) (subject-verb-object/indirect object) comprising one verb and one simple tense. Each sentence should start on a new line. Compound sentences are permitted only if they are natural to the text. However, the nature of the descriptor "natural" is not explained in the guidelines.

For grade 2 (Level A), the guidelines prescribe "[m]ostly sentences with a very simple structure (SVO/IO + one modifier), more than one verb, additional tenses are permitted at

this level. Each sentence starts on a new line. Compound sentence only if natural to the text" (sic) (MoE, 2016, p. 8). The guidelines for Level B call for "[m]ostly simple sentences, some compound sentences. (SVO/IO + two modifier), more than one verb, additional tenses are permitted at this level. A sentence can flow to the next line as there is space" [sic] (MoE, 2016, p. 8). Then, for Grade 3 (Level A), the guidelines permit compound sentences: SVO/IO + 3^{+} modifiers. Additionally, the requirements allow a sentence to flow to the next line when there is space, and a new sentence may begin on the same line. However, a new paragraph should start on a new line. For Grade 3 (Level B), the complexity of sentences is greater since it allows more complex sentences in the form of compound sentences and more complex verb forms.

Finally, for Grade 4 (Levels A and B), the guidelines allow the following: A mix of simple and more complex sentence structures (numerous compound sentences, range of verb forms, etc.) (SVO/IO + 3^{+} modifiers). A sentence can flow to the next line as there is space. Also a new sentence can continue on the same line. Only a paragraph starts on a new line. (MoE, 2016, p. 8).

As the above descriptors show, sentence type is a rather detailed criterion and may be considered a stricter criterion than the others in the guidelines. This is because of the use of the expression "permitted", which is not used in any other description. Authors who follow the guidelines will likely read this as a strong suggestion and try to realize it when writing SRMs.

The research literature does not include any justification for the increasing degree of complexity required with subsequent grades and levels. Although it is known that syntactic complexity is challenging, we could not find research that supports the specific requirements listed in the guidelines for differentiated levels within the same grade. For example, Poulsen and Gravgaard's (2016) study on the syntactic aspects of sentence comprehension and text comprehension in Grade 5 classrooms revealed that some types of relative clauses may cause comprehension challenges. A guideline simply stating the number of allowed modifiers does not take into account the variable level of complexity in modifiers.

We also do not see the rationale behind not permitting any sentence structure other than SVO/IO for Grade 1 Level A. The use of one verb and one simple tense is allowed, but what if an author needs an additional tense to convey something, such as a past action that is relevant to the ongoing narrative? Moreover, only one modifier is permitted for Grade 2 Level A. Instead of using an extra modifier, an author must create a new sentence to provide relevant information.

As is the case with sentence type, the guidelines for sentence length are formalistic and detached from how text processing evolves when an author works within a specific topic and genre. We believe that the guidelines may hinder rather than help the authors of SRMs. Based on the current guidelines, the authors of SRMs have several quantitative requirements to consider, which restrict their stylistic freedom. For example, the field of stylistics has established that a short sentence will be given more attention when it occurs among longer sentences. Therefore, an author's use of a short sentence may be an intentional choice to gain more attention. The author may also need to explain something that has occurred, requiring a shift in tense and often involving a subordinate clause. However, the act of writing SRMs

involves many restrictions that clearly prevent authors from expressing themselves with stylistic freedom. Stylistics is a discipline within the field of linguistics that concentrates on how every linguistic choice can influence the overall effect of a text (Leech & Short, 2007). Taking stylistics into consideration can improve the flexibility of the guidelines, resulting in improved SRMs. At the same time, there is the risk that emergent readers might struggle with decoding and understanding the text.

Words and Syllables

Words and syllables are treated separately in the guidelines; therefore, we examine them separately below. The criteria presented for words depend on whether they are known to the reader, whether they are repeated in the text, and whether they are loanwords.

In SRMs for Grade 1 (both levels), 75% of the words used need to be frequent words – that is, words used in texts that students have read before. The high repetition of words in the text is also a requirement. For the second grade (both levels), 50% of the words used need to be frequent, and only some words need to be repeated. In SRMs for the third and fourth grades (both levels), frequent words need to account for 25% of the text. Loanwords are required in fourth-grade texts, although some simple loanwords may be used in third-grade materials. A few words can be repeated in SRMs for the third grade, whereas almost none of the words, except for the most common ones, can be repeated in texts for the fourth grade.

In the guidelines, the references to frequent words – that is, words used in texts that students have read before, demand that the authors of SRMs have knowledge about these texts to reuse some of the known words in the SRMs. The idea behind this criterion is reasonable since students need to hear and use a word several times and in different contexts to learn the word (Horst, 2013). However, it may be challenging for the authors to be aware of students' previous experiences with texts and words. This can be solved by familiarizing oneself with textbooks used for different subjects in the same grade. Notably, the gradual decrease in known words throughout the first four grades is not justified empirically and can be seen as a random downscaling. Alternatively, this decrease can be interpreted as a result of space constraints and the need to give room for progressively increasing decoding challenges and use of strategies in connection with new and unknown vocabulary.

In addition to known and unknown words, the guidelines include criteria for the number of syllables in a word and syllable structure, whether common or irregular and complex. For Grade 1 (Level A), words are required to follow the most common syllable structure, with an average length of two syllables. This requirement increases gradually. In SRMs for Grade 2 (Level A), some irregular syllable structures may occur; the average syllable length is 2–3, but no more than seven syllables are recommended. In texts for Grade 3, many complex syllable structures may occur, and the average syllable length is 2–3, with the longest word allowed consisting of eight syllables. No specifications are given for Grade 4; the guidelines merely state that authors must use grade-appropriate word lengths.

The criteria for syllable length and structure are not as detailed as the other criteria in the guidelines. Further, the details provided for each grade may seem rather arbitrary, except for the fact that short words are easier to decode than long words: words with transparent orthography and simple syllabic structures make reading easier for students in the second grade, both in Finland (Hautala et al., 2012) and in Germany (Hasenhäcker & Schroeder,

2017). In principle, we find this criterion reasonable, as long as variable structural properties in the seven different mother tongues addressed are taken into consideration.

Other Issues

The criteria listed under this heading focus on the graphical and material aspects of SRMs, stating that bold and italic text formats are not suitable for early-grade reading materials, except in titles. Furthermore, the text should be left-aligned, with hierarchical spacing between the different text elements, such as headings, paragraphs, and lines within a paragraph. The use of colors is also commented upon (as mentioned under "Illustration" above). Finally, binding and paper quality are described. This is understandable given the risk of wear and tear in connection with potential transport from school to the home community or reading camps and clubs outside school.

As mentioned above (see "Font Size"), research has shown that fonts enhanced with bold are more legible than default text, whereas text enhanced with italics becomes less legible (Sheedy et al., 2005). Although these research results are supported, we assert that bold formatting must be used only when there is a need to highlight elements in the text.

So far, we have combined the findings based on our exploration of the guideline criteria in an order that aligns with the organization of the document itself. In this part of the Findings and Discussion, other relevant features are included. We need to note that there is explanatory potential in purely contextual and non-literacy factors if we wish to paint a wider picture of why students' reading competencies have declined rather than grown over the years. Obvious, candidates are the simple facts of availability and access to SRMs in all locations, including rural settings. In fact, one of the strategies highlighted for quality and equity improvement in coming years is ensuring timely distribution of SRMs to schools, a highly practical aim.

If empirical studies demonstrate that SRMs unaligned with the guidelines are in use, especially as regards the types of text that are offered, for instance, a higher proportion of expository than narrative texts, books that are too long to be used in 40-minute lessons, and that have too long sentences and multi-syllabic words, the question arises whether a contextually sensitive bottom-up construction of guidelines for the Ethiopian mother-tongue-educational setting would be more effective than a top-down adaptation based on reading research from another cultural context. This might make the progression of levels more in line with actual local situations.

We argue that a formalistic, quantitative approach to readability disregards important factors such as lexico-syntax, semantics, and other qualitative features. A case in point is the *affective* dimension of activities and learning. The degree to which a text is interesting, amusing, and engaging, as well as the semiotic relationship between text and illustrations, has not been addressed in the guidelines.

The first research question raised in this paper forms the basis for our discussion. The second research question regards the conceptualisation of *reading comprehension* in the guidelines. We have shown that most of the criteria in the guidelines are quantitative. The recommendations cover the number of words per line, the number of syllables in a word, the number of illustrations, and how much text is allowed per page as well as the use of known words and loanwords and the repetition of words. We see these strict recommendations as

representative of the Simple View of Reading (SVR), which is concerned with decoding and comprehension as separate components and how this view is mediated by a focus on formal aspects of texts, such as the lengths of words and sentences, the number of lines per page, the distribution of illustrations, and spacing. The content of the text and the reader's background knowledge are ignored. However, these aspects of reading are crucial in all genres, including narratives, and have been recognized as important aspects of reading comprehension for more than four decades (Bublitz, 2011; Smith et al., 2021). Similarly, the agentive role of the reader is not taken into consideration in the guidelines. This factor is strongly implied in the framework for the new competency-based curriculum from 2022. SRMs are meant to be effective, culturally appropriate and grade-relevant. They are also supposed to create an interest and motivation for devoting time to reading in the first place. Also, students' self-efficacy and independent reading and learning are at stake.

The criteria are perceived as formulas based on defined norms for what is expected by an idealized reader in each grade. While some norms may be reasonable, they may be far too detailed in sum to be fully manageable for authors of SRMs. The guidelines are construed at a generalized level and are in essence adaptations to an Ethiopian context of characteristics based on other education-cultural and local realities (USAID, 2014).Thus, they are idealized frameworks which seem to imply that all students in a grade X A/B classroom are at the same level of reading development, share the same background experiences, and are engaged in the same content. This is hardly likely and not even desirable. Every classroom represents a diverse and complex group of students with differing levels of reading comprehension and engagement.

The diversity of ordinary classrooms leads us to the next point, namely that SRM can be seen as a text type of its own, written by authors applying the guidelines established by the MoE. At present, Ethiopian students are meant to have access to SRMs in addition to textbooks, but we are aware of the country's contextual challenges. Under more favorable conditions, we would recommend that SRMs be complemented with children's literature across various genres and topics not bound by the guideline standards. Children's literature can meet the reading and cognitive development levels as well as the interest and motivation levels of every student. However, given the current level of reading achievement for early graders in Ethiopian schools, this would require substantial scaffolding by teachers well informed by reading-pedagogical expertise. Children's literature today raises challenging questions related to identity, diversity, and the environment and can be seen as having its own aesthetics. In many classrooms, children's literature is used for a range of reasons, from learning to read to reading to learn (Kümmerling-Meibauer, 2011). The overarching purpose of this paper is to encourage the MoE and teachers to explore the use of children's literature for literacy and learning purposes. Authors of children's literature can also be encouraged to develop SRMs.

The role of children's motivation in reading is an important aspect of understanding reading comprehension (Frost, 2009). In a review paper, Ahmadi (2017) provided solid documentation of the relationship between motivation and reading comprehension for different age groups. The findings indicate that young students should be given exciting books and several texts to choose among at different levels of reading competence. This is an important factor in promoting students' reading (Guthrie, 2003; Wigfield & Guthrie, 1997).

These books should be richly illustrated, with artistic quality being a specific requirement for the design of illustrations, to provide rich opportunities for interactive reading experiences.

Viewing the situation from the perspective of SRM authors makes it clear that strict quantifications can inhibit and limit authors' design of the text if they have to abide by the quantifications. Authors are required to be conscious of every single word they write. This limits the authors' stylistic choices and may, in turn, negatively affect the quality of the texts.

Having claimed that the guidelines represent the Simple View of Reading, we agree that many of the criteria are relevant – with some modifications. For instance, the text should not be too dense. Moreover, the words used should not be too long, and the text should not stand alone without illustrations. Everyday words should be used in combination with a small number of unknown words to convey what the authors have in mind and to promote leaners' use of strategic processes. These recommendations can support authors of SRMs.

As outlined above, the criteria for the choice of vocabulary depend on whether the words are known to the reader, whether they are repeated in the text, and whether they are loanwords. For Grade 1, 75% of the words used are supposed to be frequent words (i.e. words encountered in texts students have read before), with a high degree of word repetition. These requirements may cause the text to lack natural coherence (Halliday & Hasan, 2014). Authentic texts would include chains of nouns and pronouns, with the pronouns referring to subjects introduced in previous sentences (if a given mother tongue does in fact make use of this type of referential substitution). Further, reading research has shown that even when some words are unknown, a reader may still infer meaning based on the context and surrounding words (Rhoder & Huerster, 2002). This view needs to be balanced against the need to first manage to read in the sense of decoding and understanding the words that are on the page.

Determining what words are known words is a difficult task, even though authors may have knowledge of children's local languages and what can be anticipated from their vocabulary at a certain age. It may also be that "known words" are intended to simply refer to vocabulary that is used in the mandatory curricular textbooks and used in the classroom within a particular topic. Ideally, authors of SRMs should have the freedom to write texts that they deem likely to suit the target age group and enrich the topic, and teachers should thereafter prepare their classes for the content and its related vocabulary.

We recommend that the guidelines should consider other perspectives on reading, not just the SVR (Gough & Tunmer, 1986; Hoover & Gough, 1990). The Active View of Reading (Duke & Cartwright, 2021) is a promising alternative in that the agentive role of readers is taken into account, and the view that word recognition and language competence sometimes overlap rather than function as two separate components of reading competence. Writing for higher grade levels, authors should have the freedom to choose vocabulary that strengthens the coherence of the text and provides engaging variation for the reader. Text that is organized in paragraphs is easier to interpret, so instead of merely specifying the number of lines required in a paragraph, the guidelines should highlight the function of a paragraph in relation to the whole text. Furthermore, the guidelines should be based on insights from approaches that take the reader's background knowledge into account, as this is a long-recognized aspect of reading comprehension (Langer, 2005; Langer & Nicolich, 1981; Smith et al., 2021; Snow & Sweet, 2003).

Finally, we recommend developing guidelines where the importance of the interplay between text and visual illustrations is acknowledged, drawn from research on children's picture books (Nikolajeva & Scott, 2000; 2006). The present guidelines focus on the number of illustrations per page, the level of detail required in images, and – to a certain extent – the relationship between the meaning of an illustration and the meaning of the associated text. The guidelines outline only the symmetrical relationship between images and text and neglect the fact that images can convey additional, or even different, information. We recommend widening the view of illustrations and going beyond their supportive role to progressively include both their aesthetic function and potential meaning in higher grades.

A modest but positive development in reading skills among Ethiopian students was documented in the last EGRA report (USAID, 2019), and a range of significant resources were shown to have an impact: the implementation of mother tongue textbooks, the ratio between mother tongue textbooks and students in Grades 1–4, the availability of teachers' guides for mother tongue teachers, the number of mother tongue teachers at a school, the educational qualifications of teachers, the percentage of mother tongue teachers that have received in-service training, availability of SRMs, and Grade 2 and Grade 3 students' use of the school library. With this in mind, we claim that the continuous improvement and distribution of SRMs can further strengthen this positive development.

Conclusion and Pedagogical Implications

Some practical implications of enhanced and more context-sensitive guidelines for teachers, authors, and readers have been mentioned in the Findings and Discussion part above. First, we believe that SRMs would be richer and more engaging if they would involve stylistic and visual variation and not written for idealized readers, based on a clear education-political rationale. Giving the authors of SRMs more freedom and agency in the production process would motivate and stimulate them to develop their profession. For the sake of the teachers, improved guidelines might also call for a more active and interactional role, thereby impacting students' reading comprehension. This may be a challenge in classrooms with many students and one teacher, but group work and discussions can be organized in such classrooms. Another challenge is the reported fact that many teachers lack reading-pedagogical expertise (Haile & Mendisu, 2023).

The Ethiopian context for which the MoE guidelines (2016) have been established represents a society wherein children's reading skills need to be improved, as we have seen. At present, the country does not have a rich tradition of printing children's literature in many genres, but the production of SRMs is an important enterprise with a view to promoting children's reading skills, interest, and motivation. Deplorably, the economic situation is not yet suitable for equipping classrooms with quality literature that engages readers at different stages of reading development. However, exploration and awareness of potential solutions is the very beginning of the improvement process.

Our critical and detailed review of the criteria for developing SRMs (MoE, 2016) has highlighted the need for revised guidelines based on wider theoretical approaches to reading and reading comprehension. Cognitive reading approaches, text linguistics, and multimodal

theory, along with research on children's picture books, can offer insights into reading comprehension and engagement.

The findings presented in this paper have some important implications. Authors of SRMs may perceive a set of revised guidelines as offering a kind of freedom, as they would be released from the predominantly quantitative criteria that govern the word, sentence, and structural levels of text. Perhaps these authors will approach the enterprise of writing for students with increased engagement and joy of reading. We acknowledge that the development of appealing books is associated with higher costs; however, raising the reading skills of children is crucial, and investing in quality is worth the cost.

Acknowledgments

The research in this paper was supported by the Norwegian Agency for Development Cooperation (NORAD) under the project "BEYOND ACCESS: Improving Quality of Early Years Reading Instructions in Ethiopia and South Sudan," grant number ETH-16/0028. The authors acknowledge and appreciate the support they received throughout the project's duration. The authors would also like to express their sincere gratitude to Moges Yigezu (Ph.D.), who has been the project's closest collaborating partner in Ethiopia. Furthermore, we would like to thank Abraha Asfaw (Ph.D.) and Mulusew Asratie (Ph.D.), who have read and commented on the article. Finally, we would like to thank Kassahun Weldemariam (Ph.D.) for all his support in the project and laying the ground for the process towards the publication of this paper.

Disclosure Statement

No potential conflict of interest was reported by the authors.

References

Aggleton, J. (2017). What is the use of a book without pictures? An exploration of the impact of illustrations on reading experience in A Monster Calls. *Children's Literature in Education,48,* 230-244.

Ahmadi, M. R. (2017). The impact of motivation on reading comprehension. *International Journal of Research in English Education, 2*(1), 1–7. https://doi.org/10.18869/acadpub.ijree.2.1.1

Bailin, A., & Grafstein, A. (2016). *Readability: Text and context*. Palgrave Macmillan.

Björnsson, C. H. (1968). *Läsbarhet* [Readability]. Liber.

Bram, V. A. (1977). Factors affecting the readability of scientific and engineering texts. *Communicator of Scientific and Technical Information*, *33*, 3–5.

Brimo, D., Apel, K., & Fountain, T. (2017). Examining the contributions of syntactic awareness and syntactic knowledge to reading comprehension. *Journal of Research in Reading, 40*(1), 57–74.

Bublitz, W. (2011). Cohesion and coherence. In J. Verschueren, J. O. Ostman & J. Zienkowski (Eds.), *Discursive pragmatics* (pp. 37–49). John Benjamins.

Cutting, L. E., & Scarborough, H. S. (2006). Prediction of reading comprehension: Relative contributions of word recognition, language proficiency, and other cognitive skills can depend on how comprehension is measured. *Scientific Studies of Reading, 10*(3), 277–299. https://doi.org/10.1207/s1532799xssr1003_5

Duke, N. K., & Cartwright, K. B. (2021). The science of reading progresses: Communicating advances beyond the simple view of reading. *Reading Research Quarterly, 56*(S1), S25–S44. https://doi.10.1002/rrq.411

Elster, C., & Simons, H. D. (1985). How important are illustrations in children's readers? *Reading Teacher, 39*(2), 148–152.

Falkenjack, J., Mühlenbock, K. H., & Jönsson, A. (2013). Features indicating readability in Swedish text. *Proceedings of the 19th Nordic Conference of Computational Linguistics (NODALIDA 2013)*. https://www.diva-portal.org/smash/get/diva2:624380/FULLTEXT01.pdf

Frost, J. (2009). *Språk- og leseveiledning i teori og praksis* [Language- and reading guidance in theory and practice]. Cappelen Damm.

Gallagher, A., Frith, U., & Snowling, M. J. (2000). Precursors of literacy delay among children at genetic risk of dyslexia. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 41*(2), 203–213. https://doi.org/10.1111/1469-7610.00601

Gaux, C., & Gombert, J. E. (1999). Implicit and explicit syntactic knowledge and reading in pre-adolescents. *The British Journal of Developmental Psychology, 17*, 169–188. https://doi.org/10.1348/026151099165213

Gough, P. B., & Tunmer, W. E. (1986). Decoding, reading, and reading disability. *Remedial and Special Education*, *7*(1), 6–10. https://doi.org/10.1177/074193258600700104

GPE- Global Partnership for Education. (2024*). Education in Ethiopia*. https://www.globalpartnership.org/where-we-work/ethiopia

Guthrie, J. T. (2003). Concept-oriented reading instruction: Practices of teaching reading for understanding. In C. Snow & A. Sweet (Eds.), *Reading for understanding: Implications of RAND report for education* (pp. 115–140). Guilford.

Haile, S. Z., & Mendisu, B. S. (2023). Early-grade reading: The challenges that affect teachers' practice of phonological awareness: The case of Koorete language. *Hindawi Education Research International*. https://doi.org/10.1155/2023/9527369

Halliday, M. A. K., & Hasan, R. (2014). *Cohesion in English.* Routledge.

Hasenhäcker, J., & Schroeder, S. (2017). Syllables and morphemes in German reading development. Evidence from second graders, fourth graders, and adults. *Applied Psycholinguistics, 38*(3), 733–753. https://doi.org/10.1017/S0142716416000412

Hautala, J., Aro, M., Eklund, K., Lerkkanen, M. K., & Lyytinen, H. (2012). The role of letters and syllables in typical and dysfluent reading in a transparent orthography. *Reading and Writing*, *26*, 845–864.

Hoover, W. A., & Gough, P. B. (1990). The simple view of reading. *Reading and Writing: An Interdisciplinary Journal*, *2*, 127–160. https://doi.org/10.1007/BF00401799

Hoover, W. A., & Tunmer, W. E. (2020). *The cognitive foundations of reading and its acquisition*. Springer.

Horst, J. S. (2013). Context and repetition in word learning. *Front Psychology*, *4*, 149. https://doi.org/10.3389/fpsyg.2013.00149

Katzir, T., Hershko, S., & Halamish, V. (2013). The effect of font size on reading comprehension on second and fifth grade children: Bigger is not always better. *PLOS ONE, 8*(9), e74061. https://doi.org/10.1371/journal.pone.0074061

Kintsch, W. (1998). *Comprehension: A paradigm for cognition*. Cambridge University Press.

Kintsch, W. (2009). Learning and constructivism. In S. Tobias & T. M. Duffy (Eds.), *Constructivist instruction: success or failure?* (pp. 223-241). Routledge.

Kintsch, W., & van Dijk, T. A. (1978). Towards a model of text comprehension and production. *Psychological Review*, *85*(5), 363–394. https://doi.org/10.1037/0033-295X.85.5.363

Kress, G. (2003). *Literacy in the new media age*. Routledge.

Kress, G., & van Leeuwen, T. (2021/1996). *Reading images: The grammar of visual design.* Routledge.

Kümmerling-Meibauer, B. (2011). *Emergent literacy*. John Benjamins.

Langer, J. A. (2005). *Litterära föreställningsvärldar. Litteraturundervisning och litterär förståelse* [Literary imaginary worlds: literature instruction and literary understanding]. Daidalos.

Langer, J. A., & Nicolich, M. (1981). Prior knowledge and its relationship to comprehension. *Journal of Reading Behavior*, *13*(4), 373–379. *https://doi.org/10.1080/10862968109547426*

Leech, G. N., & Short, M. (2007). *Style in fiction: A linguistic introduction to English fictional prose.* Pearson Education.

Lewis, D. (2001). *Reading contemporary picture books: Picturing text*. Routledge/Falmer.

Little, D. C., & Box, J. A. (2011). The use of a specific schema-theory strategy – semantic mapping – to facilitate vocabulary development and comprehension for at-risk readers. *Reading Improvement*, *48*(1), 24–31.

Liu, Y. (2015). An empirical study of schema theory and its role in reading comprehension. *Journal of Language Teaching and Research,6*(6), 1349–1356. http://dx.doi.org/10.17507/jltr.0606.24

Lundetræ, K., & Walgermo, B. R. (2021). Leseopplæring – Å komme på sporet [Reading instruction – Getting on track]. In Lundetræ, K. & Tønnessen, F. E. (Eds.), *Å lykkes med lesing. Tidlig innsats og tilpasset opplæring* [Succeeding with reading. Early intervention and adapted instruction] (2nd ed.) (pp. 37-63). Gyldendal.

MoE- Ministry of Education. (2016). Annex-Two Guidelines for developing supplementary materials. *Ministry of Education Guidelines for Selection and Development of Supplementary Reading Materials.*

MoE- Ministry of Education. (2020). *General Education Curriculum Framework.* https://edumediadepot.gei.de/bitstream/handle/11163/7900/1817386409.pdf?sequence=1

MoE- Ministry of Education. (2021). Education Section Development Plan VI (ESDP-VI). https://www.globalpartnership.org/content/education-sector-development-plan-2020-2025-ethiopia

Moody, S., Hu, X., Kuo, L-J., Jouhar, M., Xu, Z., & Lee, S. (2018). Vocabulary instruction: A critical analysis of theories, research, and practice. *Education Sciences, 8*(180). http://doi:10.3390/educsci8040180

Nikolajeva, M. (2015). *Children's literature comes of age: Toward a new aesthetic.* Routledge.

Nikolajeva, M., & Scott, C. (2000). The dynamics of picturebook communication. *Children's Education in Literature, 31*(4), 225–239. https://doi.org/10.1023/A:1026426902123

Nikolajeva, M., & Scott, C. (2006). *How picture books work*. Routledge.

Oakland, T., & Lane, H. B. (2004). Language, reading, and readability formulas: Implications for developing and adapting tests. *International Journal of Testing*, *4*(3), 239–252. https://doi.org/10.1207/s15327574ijt0403_3

Poulsen, M., & Gravgaard, A. K. D. (2016). Who did what to whom? The relationship between syntactic aspects of sentence comprehension and text comprehension. *Scientific Studies of Reading, 20*(4), 325–338. https://doi.org/10.1080/10888438.2016.1180695

Rhoder, C., & Huerster, P. (2002). Use dictionaries for word learning with caution. *Journal of Adolescent & Adult Literacy*, *45(8)*, 730–735.

Sandvik, M., & Spurkland, M. (2009). *Lær meg norsk før skolestart* [Teach me Norwegian before school starts]. Cappelen Damm Akademisk.

Scarborough, H. S. (1990). Very early language deficits in dyslexic children. *Child Development, 61*(6), 1728–1743.

Schunk, D. H., & Zimmermann, B. J. (2007). Influencing children's self-efficacy and self-regulation of reading and writing through modelling. *Reading and Writing Quarterly*, Overcoming learning difficulties, *23*(1), 7–25. https://doi.org/10.1080/10573560600837578

Scott, C. M. (2009). A case for the sentence in reading comprehension. *Language, Speech & Hearing Services in Schools, 40*(2), 184–191. https://www.jstor.org/stable/1130834

Sheedy, J. E., Subbaram, M. V., Zimmerman, A. B., & Hayes, J. R. (2005).Text legibility and letter superiority effect. *Human Factors: The Journal of the Human Factors and Ergonomics Society, 47*(4), 797–815. https://doi.org/10.1518/00187200577557099

Smith, R., Snow, P., Serry, T., & Hammond, L. (2021). The role of background knowledge in reading comprehension: A critical review. *Reading Psychology, 42*(3), 214–240.

Snow, C. E. (2018). Simple and not-so-simple views of reading. *Remedial and Special Education*, *39*(5), 313–316. https://doi.org/10.1177/0741932518770288

Snow, C. E., & Sweet, A. P. (2003). Reading for comprehension. In A. P. Sweet & C.E. Snow (Eds.), *Rethinking reading comprehension.* (pp. 1-11). Guilford Press.

Staphorsius, G., & Krom, R. S. H. (2013). Das Schüler-Monitoring-System in den Niederlanden. In N. Berkemeyer, W. Bos, V. Manitius & K. Müthing (Eds.), *Unterrichtsentwicklung in Netzwerken: Konzeptionen, Befunde, Perspektiven.* (pp. 141-151). BoD – Books on Demand. https://books.google.no/books?id=adj6AAAAQBAJ&dq=Unterrichtsentwicklung+in+netzwerken:+Konzeptionen,+befunde,+perspektiven&lr=&hl=no&source=gbs_navlinks_s

Tapiero, I. (2007). *Situation models and levels of coherence: Toward a definition of comprehension*. Routledge.

UNICEF Ethiopia. (n.d.). *Learning and development!* https://www.unicef.org/ethiopia/learning-and-

development#:~:text=Ethiopia%20has%20made%20significant%20progress,making%20it%20to%20secondary%20school.

USAID. (2014). *Best practices for developing supplementary materials*. Final report.

USAID. (2019). *USAID Reading for Ethiopia's achievement developed monitoring and evaluation (READ M&E).* Early grade reading assessment EGRA 2018. End line report.

Van Dijk, T. A. (1980). *Macrostructures. An interdisciplinary study of global structures in discourse, interaction, and cognition*. Erlbaum.

Van Dijk, T. A. (2008). *Discourse and context: A sociocognitive approach.* Cambridge University Press.

Wigfield, A., & Guthrie, J. T. (1997). Relations of children's motivation for reading to the amount and breadth or their reading. *Journal of Educational Psychology*, *89*(3), 420. https://doi.org/10.1037/0022-0663.89.3.420

Wyile, A. S. (2001). First person engaging narration in picture books: Verbal and pictorial variations. *Children's Literature in Education*, *32*(3), 191–202. https://doi.org/10.1023/A:1010450118563

The impacts of word attack strategies in improving students' reading skill: A sequential explanatory mixed methods study

Chanyalew Enyew Adamu (Ph.D.)
Assistant Professor of Teaching English as a Foreign Language, College of Education, Bahir Dar University

Abstract

This study sought to examine the effects of meaning and visual word attack instructional strategies on the reading skills of students focusing on Grade 6 students at one primary school in Bahir Dar City, Ethiopia. A sequential explanatory mixed-methods design was employed to explore the impact of these strategies on students' reading skills. A sample of 30 Grade 6 students was selected from an intact classroom using a purposive sampling technique. The students were assessed using a pre-test-post-test design, with the pre-test administered before the intervention and the post-test administered after the intervention. The results showed that the word attack instructional strategies significantly improved students' reading skills, as measured by a paired samples t-test. Furthermore, the qualitative results revealed improvements in students' self-confidence, motivation, and participation in reading activities. The findings suggest that incorporating word attack strategies into reading lessons can have a positive impact on students' reading skills and overall reading experiences.

ARTICLE HISTORY
Received: 25 August, 2023
Accepted: 20 May, 2024

KEYWORDS
Impact, intervention, reading skill strategies, word attack

Introduction

Students in Ethiopia learn English as a Foreign Language (EFL) for various purposes. In Ethiopia, English is used as a means of communication for tourism, trade, technology, research, and science. It is also used in international schools and organizations. It is taught as a compulsory language from the lower primary grades and has continued to serve as a medium of instruction in middle primary schools, secondary schools and higher-level educational institutions (Ministry of Education [MoE], 2023; American Institutes for Research [AIR], 2019).

The most fundamental responsibility of schools is to teach students to read. Reading skills are abilities that relate to a student's ability to decode, read, interpret, and comprehend written texts. Thus, reading skills can be of great significance in assimilating and responding to written languages and communications. Reading skills have been the most essential aspect of human cognition associated with social, emotional, economic, and physical health because they affect all other academic achievements. Learning to read is not natural or easy for

CONTACT Chanyalew Enyew Adamu chanyalew.enyew@gmail.com

DOI: https://dx.doi.org/10.4314/bdje.v24i2.5

children. Good readers process the letters of each word in detail although they do so unconsciously.

Studies have indicated that the strategy for the attack of words is just one area of concern. Acquisition of a word attack strategy is considered the foundation for other skills such as listening, oral fluency, vocabulary, and comprehension (Cunningham, 2017). Baron (1985) and Sternberg and Gardner (1982) indicated that the concept of word attack strategy dates back to the teaching theories introduced to help students learn to read easily.

Reading strategies are ways that teachers and parents use with their learners to help them develop reading skills. Reading strategies are the ways teachers show students the how of reading through some methods of teaching reading. Strategies that improve decoding and reading comprehension skills benefit every student, but are essential for beginning readers, struggling readers, and English language learners (Nuttal, 1996). It is indicated that when we read, we look at written symbols such as letters, punctuation, spaces, and use our brains to convert them into words and sentences that have meaning to us (Brown, 1994).

Johns and Lenski (2019) explained that during the process of thinking in problem-solving, competent thinkers were those who could use strategies, such as identifying their goals, monitoring their progress, and evaluating evidence. Therefore, providing students with specific procedures they could use while reading could facilitate their comprehension. Competent readers might use a variety of strategies when reading a text. Studies in EFL reading indicated that students employ a variety of reading strategies when interacting with written texts so that they can improve their reading and overcome any difficulty. One of the strategies is the word attack strategy which includes recognizing syllable patterns, converting strings to sound on occasion, recognizing upper-and lower-case letters, using visuals, applying meaning strategies, and recognizing word boundaries (AIR, 2019; Hudson, 2007). The word attack strategy allows students to be engaged with and in control of, the reading text (Carrell, Pharis, & Liberto, 1989). Research evidence has also revealed that word attack strategies can be shown to children (Johns & Lenski, 2019).

The word attack strategy helps students convert orthographic symbols into language. Here, students could recognize that the script represents units of language, such as phonemes, syllables, and words. There are some sub-skills in word attack strategy that students should be taught to recognize such as recognizing syllable patterns, converting strings to sound on occasion, recognizing upper- and lower-case letters, and recognizing word boundaries (AIR, 2019; Hudson, 2007; Nuttal, 1996).

When discussing reading strategies and reading performance, Hudson (2007) concluded that a reading strategy can be described as any interactive process that has the goal of obtaining meaning from connected text, and reading skills operate within the context of such reading strategies. Therefore, the strategies of predicting, confirming, monitoring, reflecting, and evaluating can be consciously supported, and thus, strategies could also help to lessen demands on working memory by facilitating comprehension processing. Word attack is defined as the aggregate of skills that aid an individual in utilizing one technique or combination of techniques to recognize and master the meaning of a new word (Nuttal, 1996).

Word attack strategies help students to decode and pronounce unfamiliar words and understand unfamiliar words by using picture clues and prior knowledge, sounding out the

word, looking for fragments in the word, connecting to a word that they know, rereading the sentence, and keeping reading. In picture clues, students look at the picture if there are people, objects, or actions in the picture that might make sense in the sentence. In prior knowledge, students think about what they know about the subject of the book, paragraph, or sentence. They find anything that might make sense in the sentence and read the sentence with the word to see if it makes sense. In sounding out the word learners start with the first letter, say each letter sound out loud, blend the pieces, and spell out the word to see whether the word makes sense in the sentence. In search for fragments, the pupils look for familiar letter fragments in the word focusing on sounds, symbols, prefixes, suffixes, endings, whole words, or base words, and read each chunk by itself (Nuttal, 1996). Then students blend the pieces and spell out the word. In connecting to a word students know, they think of a word that looks like the unfamiliar word, compare the familiar word to the unfamiliar word, and decide if the familiar word is a chunk or form of the unfamiliar word, use the known word in the sentence to see if it makes sense and helps to get the meanings of the two words close enough for understanding. In rereading the sentence, learners read the sentence more than once, think about what word might make sense in the sentence, and try the word and see if the sentence makes sense. In keeping reading, learners read past the unfamiliar word and look for clues. If the word is repeated, students compare the second sentence to the first to recognize which word might make sense in both (Ehri, 2014; Nuttal, 1996).

There are three-word attack strategies: meaning attack, visual attack, and sound attack. The meaning attack involves the use of context clues and the expectancy of words and concepts. Visual attack involves the use of visual characteristics of words. For example, it incorporates the identification of known parts within words, the use of syllabification, the use of prefixes, suffixes, and root words, and careful visual study of the word. Sound attack includes the sounding of vowels and consonant, their combination, and the use of other methods of phonetic analysis (Brown, 1994; Gibbon et al., 2017).

It is important to note that students should receive the most beneficial word attack reading strategy early in formal schools (AIR, 2019; Dereje, 2012). When students are first provided with a formal reading strategy in primary grades, they need to understand what word attack is about. In particular, grade six English teachers should lay the foundation and help students practice word attacks through reading strategy to prevent them from poor reading and acquaint them with strategic readers for the next junior secondary school, grades seven and eight.

Grade 6 students are expected to learn specific things about the word attack strategy before they are promoted to grade seven. They need to understand how print works and be able to connect print with words (AIR, 2019). To help grade six students read words properly; teachers need to work on a word attack strategy that will help learners read systematically (Burns, 2015; Johns, & Lenski, 2019). The word attack strategy was argued to influence the reading performance of the students.

Rereading plays an essential role in learning a foreign language. One of the crucial objectives of classroom instruction is to help learners develop reading skills. Reading is important for children's intellectual development. It helps students learn new words, pronunciation, and spelling. Reading also plays an important role in student self-confidence, motivation, and participation. Thus, being an adequate reader is not only a necessity for a

person throughout primary and secondary schooling, but also a necessity in order to be a successful adult in the society (Clay, 1990). To improve ability of the students to word attack, there are certain direct teaching strategies, such as meaning attack, visual attack, sound attack, etc. However, for this study, meaning attack, and visual attack, strategies were used. Research shows that word attack strategies are highly effective when used for reading instruction, as they are useful to get meaning from visual and clue (Cates et al., 2006; Trabasso & Bouchard, 2002).

Statement of the Problem

As mentioned above, reading skill is crucial for learning other language skills and subjects. However, it has been found that many English language beginning learners think reading is quite challenging. They think it is difficult to recognize words and comprehend the reading, and oral reading is not easy for them as well. In addition, studies in Ethiopian primary school students' reading revealed that their reading skill achievement was below the expected level. The results indicated that grade six students showed very low word reading performance. The findings also showed that a large majority of them were unable to display proficiency in reading. It was found very low, gauged against the expected reading competences indicated for the grade level (Smith et al., 2012). The results appear to be similar with recent studies (e.g., Johns & Lenski, 2019).

Studies in Ethiopian primary school students on word reading revealed that students were unable to read as required. Researchers (e.g., AIR, 2019) administered tests to students with the objective of measuring their word reading ability. The findings revealed that word reading of the students was below average when evaluated against the basic minimum learning competencies of the grade level expected of them (MoE, 2020). This implies that equipping teachers and students with the reading strategies is crucial to facilitate student-teacher engagement and improve student reading skill. Therefore, the application of the word reading strategy is helpful, as suggested by (Short et al., 2018), which calls for intervention.

To date, in Ethiopia, some studies (e.g., AIR, 2019; Chanyalew & Abiy, 2015; Dereje, 2012; Smith et al., 2012) have been conducted on the English reading skill of primary school students. However, to the best knowledge of the researcher, there were no studies conducted on grade six students' reading performance that addressed word attack strategy to improve their reading. In addition, preliminary observations of Dona Berber, Felege Abay, Dilchibo, Qulqual Meda, and Zenzelima primary schools of Bahr Dar City by the researcher and informal discussions with English teachers revealed deficiencies in the reading skill of the students. This problem needs immediate remedy. To improve the student's reading skills, intervention is one way among others. Therefore, in this intervention, meaning attack and visual attack strategies were used as independent variables, and reading skill as a dependent variable.

The rationale for studying grade six reading was that it is the level where the students are expected to acquire basic reading skills such as phonics, phonemic awareness, and word reading fluency. Grade six is the level where students are ready to read paragraphs and essays before being promoted to grade seven (MoE, 2020).

Thus, the purpose of this study was to investigate the 'the impacts of the word attack strategy on the reading skill of grade 6 students. Based on this purpose, the study attempted

to answer the following research question: What are the impacts of word attack strategies on grade six students reading skill?

Methods

Research Design

To meet the objectives of this study mixed methods approach was used where the quantitative phase of data collection and analysis preceded the qualitative phase. One-Group Pretest-Posttest Research Design was used. Accordingly, the sequential explanatory research method was used. A single group of non-randomized grade six students took the pre-test–post-test using quasi-experiment to measure the difference between baseline data (pre-test) and outcome of the intervention (post-test): once before and once after the intervention. The test measured the independent variable, word attack that combined meaning attack, visual attack and sound attack strategies against dependent variable reading performance. A one-group pre-test-post-test grew from the simpler post-test only designs to help address some of the issues that arise with ethical concerns, assignment bias, and allocation of participants to groups (Creswell, 2013). Behavioral researchers often use one-group pre-post-test design to determine the effect of an intervention on a given sample. It allows researchers to make an uncomplicated assessment of an intervention applied to a group of participants (Tashakkori & Teddle, 2003).

Study Participants

The study was conducted on Grade six students at Zenzelima Primary School in Bahir Dar City. To address some of the issues that arise with ethical concerns, assignment bias, and allocation of participants to groups, the researcher used an intact classroom setting in which random assignment of participants of the study to different conditions was not mandatory (Creswell, 2013). Thus, the researcher used one section of grade 6 students thirty (n=30) for the intervention having obtained permission from the school's director, teacher, and students.

Data Collection Instruments

Data were collected through Pre-Posttest, teacher self-reflection grid, classroom observation, and interviews to get reliable data and cross validate the data. Moreover, different data sources will increase the credibility of the findings and minimize the risk of drawing an unsound conclusion. It is suggested that using different instruments will increase the reliability and validity of the data and cross-check the result from different angles.

Pre and Post-test

The researcher was unable to obtain available standardized tests to measure the reading skill of primary school students. Thus, he adopted the tests prepared, and used by the concerned experts, (AIR, 2012) to measure the pre-post-test. There were two sections in the test. The first section was 'Passage Reading' based on a short narrative paragraph (Timed) (~60 words). The score was calculated by counting the number of words each student read aloud correctly in 1 minute. The second section was 'Passage Reading Comprehension'; (Not

Timed) was based on the text used to assess passage reading. Before administering the pre-posttest, two grade six English language teachers evaluated the content validity of written reading skill tests and whether the questions could correctly measure students' reading skills. The face validity was also evaluated by teachers to check the degree to which the test objectively appears to measure the variable it is supposed to measure. They suggested that the test was in line with the contents, formats and test procedures of grade six students and the corresponding minimum learning competencies, syllabus, and English Grade six student text (MLCs) of MoE (2020).

The per-posttest was administered to students on reading skills to compare its result with the post-test scores and to check whether the students had improved their reading performance as a result of the intervention. After a student read the text aloud, six simple questions were asked about the passage. The score was the number of questions the student correctly answered.

Teacher Self-reflection Grid

The teacher's self-reflection grid was prepared by an English language college teacher based on 'Grade Six English language reading competencies' in the syllabus (MoE, 2020). The content and face validity of the items were evaluated by the teacher and the researcher. Then, the checklist was used to help the teacher self-reflect on her intervention on how she has taught word reading through the word attack strategy during the intervention.

Classroom Observations

This instrument was also adopted in the tests prepared, and used by the concerned experts, (AIR, 2012), and the reading competencies of the (MoE, 2020) to measure/check the context of the intervention.

Interview

After the intervention and the post-test, the teacher was interviewed on the date of appointment for the interview. The interview contained eight questions about the implementation of word attack strategies and how these strategies helped students with their reading development and reading skills.

Data Analysis

The study incorporated quantitative and qualitative data. In analyzing the quantitative data drawn from the pre-and post-tests, the researcher used a paired samples t-test. However, in analyzing the data from interview, classroom observation, and teacher's reflection, the researcher coded, described, and interpreted based on the themes and questions.

Ethical Considerations

Ethical clearance in research is an instrument to measure the ethical fulfillment of a research process. It is a reference for researchers in upholding the values of integrity, honesty, and fairness in conducting research. By obtaining ethical approval the researcher is

demonstrating that he has adhered to the accepted ethical standards of a genuine research study. Participants have the right to know who has access to their data and what is being done with it (Creswell, 2013).Thus, having obtained permission from the school's director, teacher, parents, and students, thirty (n=30) grade 6 students were made to participate in the intervention.

Intervention Procedures

Initially, two English language teachers and the researcher administered a pre-test to each grade six student (n=30). The teachers corrected the pre-test and kept the result for comparison with the post-test result.

Next, training of English teachers was conducted. The training was carried out for four rounds (each covered 2:00 hours). On the first day of the training, the researcher introduced the word attack reading strategies to the English-language classroom teacher and one reserve teacher. The reserve teacher was trained to replace the regular class teacher in case of emergency. The training of the two teachers created a collaborative and interactive scenario. The training was conducted through reflection of the trainees and feedback from the trainer. Teachers were provided with exemplary and demonstrative samples of the why, what, and how of word attack strategies in the training. They discussed how to apply the strategies in reading classes. Different units of the student textbook were covered. This was done to see whether the word attack strategy could be implemented regularly and actively during the intervention.

The trainees discussed with each other how to apply the strategy in reading classes. They exchanged their notebooks to help them check what and how they will do the intervention. Generally, teachers were trained in all sessions on how to plan and apply word attack reading strategies in their daily reading lessons and activities. After the training, one of the trained teachers implemented the intervention for three months.

Teacher-researcher Conference

The researcher collected the reports after the intended reading lessons. The word attack focused on self-reflection. The teacher taught word attack using word meaning attack and visual clue strategies. From the teacher's self-reflection report in the first reading lesson; the lesson was less clear and all objectives were not achieved as intended. This may have occurred due to the teacher's and students' early attempts of implementing new strategies that could have slowed the reading process; however, with sufficient practice, the teacher used strategies efficiently and helped students read the word. To identify the gaps and maintain strengths of the strategies, after the second classroom observation, both the teacher and the researcher used to read the teacher self-reflection report and came across the merits of reading strategies as supportive and encouraging except for few ideas that were written out of context (It was answered in the general reading sense rather than in the word attack reading strategies). Although the teacher's ideas were clearly indicated in the reporting grid format, the teacher wrote few ideas that deviated from the topic of the word attack reading practice.

Therefore, before the next reflection session, the researcher tried to detect what teacher's problems were and tried to reorient her how to apply strategies and self-reflect on

them. The clarification of the researcher and the informal discussion with the teacher resulted in sufficient and reliable use of strategies in her subsequent reports. The self-reflection grid also required the teacher to write the reasons for using the different reading strategies and activities. Her reflection indicated that strategy use have a facilitative role in enhancing students' word reading skill.

Classroom Observations

During the intervention**,** the researcher conducted six round classroom observations during the intended reading lessons using a diary to obtain reliable data. The English teacher taught reading using word attack strategies such as meaning and visual attack strategies. She used the words daily during instruction taking the time to ask students to find the word within the word lists.

The researcher observed the teacher applying the following word attack strategies procedures. She guided the students to use picture clues. The students looked at the picture and identified people, objects, or actions in the picture that made sense in the sentences. They practiced speaking the word out. They started with the first letter, and said each letter-sound aloud, blended the sounds together, and tried to say the word repeatedly. The students then examined whether the word made senses in the sentence. The students then looked for chunks and familiar words to get clues. The teacher invited students to practice sound symbols, prefixes, suffixes, endings, whole words, or base words using chunks. Then the students continued to blend the chunks together and sounded the words until they got the meaning of the words.

In the subsequent lessons, the teacher supported students to connect words they know to get meaning. Students thought of a word that looked like the unfamiliar word and compared the familiar word with the unfamiliar word. They decided whether word was a chunk or form of the unfamiliar word and used the known word in sentences. Students were able to see whether or not the meanings of the words were closer or similar to give meaning. Then, students kept reading sentences more than once, read past the unfamiliar word, and looked for clues. If the word was repeated, the students compared the second sentence to the first. Finally, they differentiated which words might make sense in both.

In the next classroom observations, the teacher let the students work a fun activity with the words to reinforce their use regularly. The teacher, along with the students, practiced many word attacks, such as wall chants, cheers, and games for practicing reading. The teacher quickly reinforced that students read and write these words in a fun transition activity in their reading. During the observations, teacher- mediated students apply the visual reminder as a reference tool for the entire reading lessons. Students used to refer to the word attack strategies throughout the lessons to check the meaning of the words they were unfamiliar with. Classroom observations revealed that during reading classes, word attack strategies were usually used in the intervention.

The observations also showed that teacher along with students had increased the application of word attack strategies from the first lesson to the next step by step to facilitate student reading performance. The following excerpts show how the word attack strategies were being implemented during the intervention.

After the intervention, two English teachers and the researcher collaboratively administered the post-test (similar to pre-test) to assess students' word reading skill. The assessors followed the same procedure as that of the pre-test.

Results

In this section, the results of the study are presented in a sequential, beginning with the quantitative results from the pre-test and post-tests, followed by an examination of the qualitative data collected through observations and interviews to provide a complete picture of the study's results.

Quantitative Results

The quantitative data obtained through the pre-test and post-test method were compared using a paired sample t-test to see whether word attack strategies had a significant effect on students' reading skills. The results are presented in Tables 1 and 2 as follows.

Table1

Paired Samples t-test of the Students' Meaning Attack Strategy

Tests	**N**	Mean	Std. Deviation	Standard Error Mean	t	df	Sig. (2tailed)
Pre-test	30	31.9333	20.96744	3.82811	-10.755	29	.000
Post-test	30	36.733	20.6630	3.7725			

Note. p= 0.05

Table 1 above revealed the existence of a statistically significant difference at the 0.05 significance level (t29 =-10.755, P <.05) in the reading scores of the pre-test and post-test of grade 6 students. The result revealed that teaching reading through the meaning attack strategy showed steady progress in students' reading skills. Improvements in grade 6 students' reading comprehension might have been achieved as a result of word meaning attack strategy instruction.

Table 2

Paired Samples t-test of the Students' visual attack strategy

Tests	N	Mean	Std. Deviation	Standard Error Mean	t	df	Sig. (2tailed)
Pre-test	30	7.7167	2.96440	.54122	-9.841	29	.000
Post-test	30	10.667	2.9634	.5410			

Note. p= 0.05

Table 2 shows that the difference in the reading mean of the visual attack strategy (3.98) is significant, as the calculated (6.32) is greater than the critical (2.38) 12.29 at an alpha value of 0.05. The result implied that the students who were taught through the visual attack strategy had shown a significant increase in post-test reading performance compared to

the pretest. The significant difference observed in the reading performance of the students might have been achieved as a result of the intervention.

Qualitative Results

To substantiate the above quantitative results, additional data were collected through observation and interview methods. In this sub-section, the results obtained through these methods are presented as follows.

Results of Classroom Observations

The implementation of word attack strategies during the intervention was observed to be effective. For instance, on day seven, in lesson four, the teacher introduced vocabulary meaning and word-in-context attack strategies through a visual and meaning-based approach. Students read in pairs, groups, and individually, with their teacher and independently, until the end of the lesson. The teacher assigned a reading task on vocabulary meaning and word-in-context using word attack strategies.

On day twelve, the teacher introduced a new seating arrangement to facilitate group work. Students were paired in groups of three to share a desk, promoting collaborative learning and interaction. The teacher assigned tasks that encouraged students to share their reading strategies and skills with one another through crossover group work. Subsequently, the teacher instructed students on how to read words in context and word lists within a passage, allowing them to practice independently.

The teacher also implemented various group activities to promote the use of word attack strategies. On day fourteen, students formed eight groups to practice reading passages using word attacks. After completing the task, each group shared their answers with another group, discussing how they applied meaningful attack strategies. Representatives from each group then joined another group to further share their practice.

Throughout the lessons, the teacher monitored students' progress, asking about the meaning of studied words and the strategies used. Students reflected on their learning, describing the strategies they employed and the words they had studied. The teacher appreciated their efforts until the allocated time for the lesson was up.

The students' improved reading skills were evident as a result of using word attack strategies. For example, on day sixteen, students continued to make self-reading using visual and meaning attack strategies in pre-, while-, and post-reading phases. The teacher guided them in recognizing word boundaries and mastering new word meanings.

The teacher's intention was to develop an independent reading strategy that would promote students' reading skills and foster an understanding of the importance of reading in other subjects. The results showed that students' reading skills improved significantly over time.

Classroom observations revealed that the teacher played a crucial role in introducing reading strategies and activities. She modeled each strategy for students during the reading phases, followed by teacher-student, student-student, student-teacher interaction, and student-independent practice. As a result, both the teacher and students were able to apply most of the strategies regularly.

The observations also highlighted that the teacher was well-prepared to implement word attack strategies. She directed student participation, adjusted her pace according to students' understanding levels, and provided supportive feedback. This led to improvements in teacher-student interaction, student-student interaction, teacher feedback, and student-independent practice of strategies.

For example, seven struggling readers who could initially read only two words per minute were able to read six words using context clues and concepts after the intervention. Twenty-four students were able to read phrases and sentences confidently using identification of known parts within words and root words.

Overall, the implementation of word attack strategies resulted in significant improvements in students' reading skills, with the teacher playing a crucial role in guiding students towards independent reading practices.

Interview Results

The teacher's post-intervention interview revealed that the intervention had a positive impact on students' use of the word attack strategy. She reported that within weeks, she observed significant improvements in students' ability to identify words, their meanings, and read vocabulary, sentences, and paragraphs with increased ease. The teacher noted that students were able to decode and comprehend texts more effectively, demonstrating progress in their reading performance within four weeks.

The teacher emphasized the importance of word attack strategies in teaching reading, stating that they are essential for decoding, pronouncing, and understanding unfamiliar words. She explained that these strategies help students break down words into individual sounds, blend them together, and make connections between spelling and pronunciation. By using these strategies, students can identify differences between words, phrases, clauses, sentences, and paragraphs, leading to improved comprehension.

When asked about the benefits of the intervention on word reading skill, the teacher noted that mastery of words is crucial for a short period but that upper primary grade students will also need additional word attack strategies to continue developing their reading skills. She emphasized the importance of learning words through strategies in grade six as a foundation for learning language skills and reading other subjects.

The teacher also reported an increase in students' curiosity, motivation, participation, cooperation, competition, and individualized reading activities. She observed a marked change in student behavior, noting that those who were previously ashamed and frustrated were now actively participating in reading lessons. Besides, students displayed enthusiasm and engagement, using the strategies with high participation and creativity. This suggests a significant increase in student motivation and interest.

In conclusion, the teacher recommended that such an intervention program should be continuous to sustain the positive gains made by students. Overall, the interview results indicate that students have developed positive attitudes and motivation towards word attack strategies, which has promoted their development of reading skills and strategy use.

Discussion

This study indicated that the use of a word attack strategy brings about a strong significant difference in students' word reading skill performance. Word reading skills are crucial for students so that they feel motivated and confident about reading new words and phrases. If a student is not confident in his or her word reading, he or she will be less likely to read new words and take risks while reading. Throughout the intervention, it was visible that the students were gaining self-confidence in the strategy of word attack both in isolation and in the context of word attack performance. The comparison between the results of the analyses of the quantitative data from the pre-test and post-test indicated that students have shown an increased improvement in their reading skill of words in the post-test. This supported the initial predictions that the word attack strategy will have a positive effect on reading comprehension (AIR, 2019; Gibbon et al., 2017; Johns & Lenski, 2019).

Gibbon et al., (2017) and Johns and Lenski, (2019) developed intervention strategies based on the meaning attack strategy. The findings revealed that the meaning attack strategy had significant and positive effects on the reading performance of the students. Their results suggested that the students who participated in the intervention had shown more progress in their fluency in word reading and were found to be at a lower risk of reading failure. The findings of the current study were consistent with previous studies (e.g., AIR, 2019; Burns, 2015). The use of word attack strategies in a classroom can have a big contribution in improving language skills. Word attack activities encourage active student participation. Gestures, such as pointing to keywords during a lesson and offering visual reinforcement, can be very helpful for students (Johns & Lenski, 2019).

Hudson (2007) and Short et al. (2018) indicated that the word attack strategy remains one component of a comprehensive literacy program for early readers and, for older students experiencing reading difficulties, a part of the reading intervention. Recognizing high-frequency and irregular words automatically helps students read better. To prevent students from becoming dependent on the ineffective practice of memorizing lists of words, instruction should be administered in small doses alongside systematic phonics instruction. But it should not be less than 10 minutes. The words themselves should be drawn from related text lists and applied immediately to reading connected text, as word drills are not the route to skilled reading ability. When implementing effective reading instruction through word attack strategy, reading words becomes an effortless act.

The meaning attack strategy is popular for teaching reading comprehension. It is more effective for teaching words to primary-grade students. The strategy creates a place in the classroom where students display the meanings of important ideas using words and pictures. Meaning attack practice offers students the ability to comprehend and interpret ideas in the text when they encounter new vocabulary in a text or watch video (Blackwell & Laman, 2013).

The findings of Filkins (2018) indicated that the use of word attacks does not have equal benefits for all types of students. In the study, it was found that students above grade level (students who had better performance than average and low-performing students in the same classroom) received the least benefits from word attacks. However, the current study was contrary to the above findings. The findings disclosed that when the word attack strategy

is applied properly, accompanied by activities and explicit instruction, it is equally effective as observed in classroom observations during the intervention and the students' post-test results. The main point should be how to use the word attack strategy effectively in the classroom with the students.

The second strategy used in this intervention was visual attack (see Table 2). Visual attack is one of the creative efforts to create fun learning using visual clues. The results indicated that the strategy has improved students' reading proficiency. After the intervention, the difference between pre-test and post-test results was measured to see if there was a significant change in student performance. The post-test showed a significant increase in student reading performance.

The results uncovered that students who were taught through the word attack strategy showed a significant increase in their word reading performance compared to those who were taught in the usual method. Supporting the current finding, (AIR, 2019; Gibbon et al., 2017; Johns & Lenski, 2019) revealed that word reading is among the best predictors of fluency and comprehension. Results of classroom observation also supported that the use of strategies among students has a significant importance in reading classes. Besides, the effects of word attack strategies were significant on reading comprehension, suggesting that teaching children to manipulate words was an effective way to increase comprehension.

Other results indicated that the word attack strategy was effective and useful for teaching students words because it helped them master the words in the activity so that they could consistently recognize and read all the words in their hands, with confidence and without any noticeable hesitation. It is beneficial for teaching reading and can be used by teachers in the school as one of the new strategies for learning English. It will be livelier and fun and can improve students' vocabulary skills. It is also another fun strategy to give children extensive exposure to a variety of words. The word attack strategy is necessary for students to become proficient readers, as instruction in areas of fluency and comprehension is based on it (Johns & Lenski, 2019).

The interview results also showed that reading strategies helped the students in answering difficult vocabulary words, connecting words to get the entire meaning from the context, and using visual cues appropriately. They helped the students facilitate their reading proficiency and practice the strategies to simplify reading difficulties in their reading skill, particularly with struggling readers

Conclusions and Implications

This study investigated the effects of word attack strategies on the reading skills of grade 6 students. The results revealed significant and positive impacts on students' reading performance, leading to increased confidence, risk-taking, and proficiency in reading words, sentences, and paragraphs both in isolation and context. Furthermore, the findings showed that students demonstrated improved reading skills, developed motivation, self-confidence, and a greater interest in reading.

It is crucial for students to feel confident in their reading abilities, as a lack of confidence can lead to reduced reading frequency and imitation rather than genuine

engagement. Therefore, word-attack strategy instruction is essential for students to feel motivated and confident when learning new words, sentences, paragraphs, and essays.

The study's conclusions emphasize the significance of word-attack strategies for students' reading development in English. The findings have important implications for grade 6 English language teachers, who should incorporate word-attack strategies into their reading lessons to provide students with opportunities to improve their reading skills. Additionally, the study's results suggest that curriculum designers and textbook writers should incorporate more activities that encourage word attacks in teaching vocabulary and comprehension.

Limitations of the Study

To increase the generalizability of the findings, future research could explore the strategies across various grade levels, class sizes, and educational contexts. Additionally, incorporating diverse stakeholders, such as teachers, administrators, and students from different backgrounds, could provide more comprehensive insights into the effectiveness of the strategies.

Conflict of Interest

The researcher declares that there are no conflicts of interest regarding the publication of this article.

Acknowledgments

The author acknowledges the participants of the study for their cooperation in the intervention.

References

AIR- American Institutes for Research. (2012). Ethiopia teaches English for life learning (TELL) program: Ethiopia English early grade reading assessment: Data analytic report.

AIR-American Institutes for Research. (2019). *Early grade reading assessment (EGRA) 2018 end line report.* USAID Reading for Ethiopia's achievement developed monitoring and evaluation.

Baron, J. (1985). *What kinds of intelligence components are fundamental*? In S.F. Chipman, J. W. Segal, & R. Glaser (Eds.), *Thinking and Learning Skills*, *Vol. 2*, (pp. 365-390). Routledge.

Blackwell, R., & Laman, S. (2013). Strategies to teach sight words in an elementary classroom. *International Journal of Education*, 5(4), 37-47.

Brown, P. (1994). *Reading in the classroom*. Macmillan Publisher.

Burns, M. (2015). A brief report of the diagnostic accuracy of oral reading fluency, and reading inventory levels for reading failure risk among second and third-grade students. *Reading & Writing Quarterly, 31*(1), 56–67.

Carrell, P. L., Pharis, B. G., & Liberto, J. C. (1989). Metacognitive strategy training for ESL reading. *Tesol Quarterly*, *23*(4), 647-678.

Cates, G. L., & Rhymer, K. N. (2006). Effects of explicit timing on elementary students' oral reading rated of words and phrases. *Reading Improvement, 43*(3), 148-156.

Chanyalew, E. & AbiyY.(2015). Teachers' current practices of teaching reading and grade four students' reading achievement in Dona Berber Primary School. *Science, Technology and Arts Research Journal, 4* (3), 265-272.

Clay, M. (1990). *The early detection of reading difficulties*. Heinneman.

Creswell, J. W. (20013). *Research design: Qualitative, quantitative, and mixed methods approach.* Sage Publications.

Cunningham, P. M. (2017). *Phonics they use: Words for reading and writing (7th ed.)* Pearson.

Dereje, N. (2012). *Primary EFL teaching in Ethiopia: Policy and practice* [Unpublished PhD Dissertation]. Addis Ababa University.

Ehri, L. C. (2014). Orthographic mapping in the acquisition of sight word reading, spelling memory, and vocabulary learning. *Scientific Studies of Reading*, 18(1), 5–21. https://doi.org/10.1080/10888438.2013.819356

Filkins, S. (2018). *Using word walls to develop and maintain academic vocabulary.* http://www.readwritethink.org/professional-development/strategyguides/using-word-walls-develop-31164.html

Gelo O, Braakman D., & Benetka G. (2008). Quantitative and qualitative research: Beyond the debate. *Integrative Psychological & Behavioral Science*, 42 (3), 266–290.

Gibbon, J. M., Duffield, S., Hoffman, J., & Wageman, J. (2017). Effects of educational games on sight word reading achievement and student motivation. *Journal of Language and Literacy Education, 13*(2), 1-27. http://jolle.coe.uga.edu/wpcontent/uploads/2017/11/Duffield_JoLL E2017.pd

Hudson, T. (2007). *Teaching second language reading*. Oxford University Press.

Johns, J. L., & Lenski, S. D. (2019). *Improving reading: Interventions, strategies, and common core connections (7th ed.).* Kendall Hunt.

MoE- Ministry of Education. (2020). *General education curriculum framework: Draft policy document.* The Federal Democratic Republic of Ethiopia Ministry of Education.

MoE- Ministry of Education. (2023). *Education and training policy*. The Federal Democratic Republic of Ethiopia Ministry of Education.

Nuttal, C. (1996).*Teaching reading skills in foreign language*. Heinemann.

Short, D., Becker, H., Cloud, N., Hellman, A., Levine, L., & Cummins, J. (2018).*The 6 principles for exemplary teaching of English learners.* Anita Draper.

Smith, C., Stone, R., & Comings, J. (2012). *Field study report literacy policy and practice in Ethiopia: Building on the TELL Program and EGRA results*. Center for International Education, University of Massachusetts.

Sternberg, R. J., & Gardner, M. K. (1982). *A componential interpretation of the general factor in human intelligence.* Springer Berlin Heidelberg.

Tashakkori, A., & Teddlie, C. (2003). *Hand book of mixed methods in social and behavioral research.* Sage Publications.

Trabasso, T., & Bouchard, E. (2002). Teaching readers how to comprehend text strategically. In C. C. Block & M. Pressley (Eds.), *Comprehension instruction*: *Research-based best practices* (pp. 176-200). Guilford Press.

The effects of interactive writing instructional method on the Amharic writing skills of students with hearing impairment

Etagegne Gedefaw Getahun
Ph.D. Candidate, Department of Ethiopian Language and Literature, College of Humanities, Language Studies, Journalism and Communications, Addis Ababa University

Getachew Endalamaw Asefaw (Ph.D.)
Assistant Professor, Department of Foreign Language and Literature, College of Humanities, Language Studies, Journalism and Communications, Addis Ababa University

Abstract

This study aimed to explore the impact of the interactive writing instructional method on the Amharic writing skills of grade seven students with hearing impairment. A single-group experimental design was employed, involving seven participants selected using the comprehensive sampling technique due to the small study group size. The school was also selected purposefully. Data were collected through pretest and posttest methods, which were analyzed using a paired sample t-test. The results showed a significant improvement in students' writing skills, with a mean score increase from 34.10 in the pretest to 62.07 in the posttest, representing a notable 32.36-point average score difference between the two tests. Furthermore, the analysis revealed a statistically significant difference in writing skills between the pre- and post-intervention results. The results of the study suggest that the interactive writing instructional method has a positive effect on improving Amharic writing skills among students with hearing impairment.

ARTICLE HISTORY
Received: 03 November, 2023
Accepted: 20 May, 2024

KEYWORDS
Writing skills, interactive method, hearing impairment, experiment, student, teacher

Introduction

Learners who are hearing impaired do not have access to spoken language through their auditory system, making it challenging for them to learn reading and writing skills. Instead, they rely on visual manual systems, such as sign language (Alemayehu, 2019). However, this can be problematic in environments where few people are proficient in sign language (Graham, 2010). According to research (Botelho, 2003: Guarinello, 2009; Richards & Renandya, 2002; Ramsey, 1997), the absence of community sign language can hinder overall language development, which in turn affects reading and writing abilities. For individuals who are hearing impaired, the lack of phonological codes for reading and writing is compounded by the ambiguity of sign language, where words may not always have a direct equivalent in spoken language. This cumulative language barrier can have a direct impact on the reading and writing skills of individuals who are hearing impaired (John et al., 2015).

CONTACT Etagegne Gedefaw Getahun Etagegnegetahun@gmail.com

DOI: https://dx.doi.org/10.4314/bdje.v24i2.6

Research in Ethiopia has consistently shown that students with hearing impairments face significant challenges in acquiring literacy skills (Alemayehu, 2019; Mulugeta, 2019). In the past, efforts have been made to teach students who are hearing impaired to develop oral language skills, similar to those of their hearing peers. However, these attempts have been unsuccessful.

Human language is not a product of tongues, teeth, and lips; it is rather a product of a human mind. Spoken language is an imperfect representation of our inner competence and written language is a representation of spoken language (Donald & David, 2006). Writing skills require an active process of constructing meaning rather than acquiring knowledge. Classroom instruction is a process of supporting that construction rather than communicating knowledge (Dever & Karabenick, 2011; Jensen, 2005; Kazu, 2009; Smith, 2007; Wormelli, 2007; Sousa, 2009). Due to inappropriate teaching, learners who are hearing impaired in regular classrooms have low writing performance (Alemayehu, 2019; Tirussew et al., 1995). Writing expression requires the combined use of various skills; writing is an even more complex task for learners who are hearing impaired, and who experience a delay in the development of their language skills (Schirmer et al., 2005). Various researchers have found that learners who are hearing impaired perform poorly in writing skills and their writing scores were relatively found to be lower than their hearing peers' scores (Antia et al., 2005; Geers, 2003; Schirmer & Mcgoughg, 2005; Spencer & Tomblin, 2008). Researchers suggest two reasons; learners who are hearing impaired are not able to acquire language skills as efficiently as those of their hearing peers and teaching practices in writing are insufficient (Graham & Hebert, 2010; Karasu, 2004; Meyer, 2007; Wolbers, 2008).

It is proposed that, with the use of several methods and practices, (e.g., interactive approach), the writing skills of learners who are hearing impaired could improve, and they can attain levels closer to their peers with hearing abilities. The Interactive Writing Instruction (IWI), used as a teaching method, originated from the combination of using both "process and product" writing strategies (Kluwin & Blumenthal, 1992). It includes pre-writing, planning phase, composing, revising for clarity and organization, editing, and publishing. Learners are encouraged to use a variety of strategies as they create texts. The focus is on the process of formulating and expressing ideas. An interactive writing instruction is flexible and includes feedback throughout the creation of texts. Learners who are hearing impaired are encouraged to use a variety of strategies as they create texts. During the process of creating a text, the initial focus is on the process of formulating and expressing ideas, rather than on editing and finalizing the text for the end product (Kluwin & Blumenthal, 1992). Kluwin and Blumenthal found the interactive writing process to help learners understand the course content, remain attentive, and engage with the material, teacher, and each other.

Interactive Writing Instruction is a teaching approach that can also be used with learners who are hearing impaired to develop writing skills. According to Destal and Wolbers (2012), IWI is comprised of seven driving principles, with three overarching, theoretical-based principles: the strategic instruction to students clearly to follow the processes of teachers using words; teaching through sharing ideas between a teacher and students (interactive), building and cooperatively determining writing actions, and students

externalizing their thoughts to be accessible to their peers; the implicit and explicit methods of IWI that help to promote linguistic competence among students who are hearing impaired.

In the interactive writing instruction, students and teachers collaborate in the construction of texts while building on prior knowledge. Students use what they know about language, conventions of print, and how words work to create meaningful writing. Interactive Writing Instruction can be a valuable instructional method that greatly enhances engagement in the classroom. This technique improves spelling knowledge, provides a letter sound connection, and links the decoding process as the teacher and students collaborate to create longer and more complex texts (Fountas & Pinnel, 2006; Karchmer & Mitchell, 2003).

Interactive Writing Instruction intervention is the focus of the present study at Alpha Special School. Hearing impaired learners who are enrolled in Alpha Special School require support in order to achieve the optimum levels targeted for their peers with hearing abilities. Many studies in Ethiopia have indicated that hearing loss can adversely affect the language skills and academic performance of children who are hearing-impaired and are enrolled in traditional school settings (Alemayehu, 2003, 2016, 2019; Girma, 2008; Tesfaye, 2014; Tirussew et al., 1995).

The study conducted by Girma (1990) explored the effects of Interactive Writing on hearing students and highlighted its benefits in enhancing children's independent writing skills. In contrast, Wolbers (2008) and Mccarthey and Garcia (2005) investigated the impact of instructional approaches such as phonological awareness, alphabetic knowledge, and early reading on kindergarten children. The primary objective was to compare the effectiveness of a contextualized instructional approach based on an adapted interactive writing program with a field-tested program of meta-linguistic games. The researcher employed an experimental design, utilizing a pretest-posttest comparison-group design similar to the present study.

Teaching writing to students who are hearing impaired is considered one of the most challenging tasks for educators. Research suggests that with targeted interventions, however, positive outcomes can be achieved (Wolbers, 2008; Wolbers et al., 2018; Safitri & Ma'rifah, 2021). According to Caudery (1997), writing is the least practiced among the four language skills. This means that for learners who are hearing impaired, writing is frequently neglected and overlooked in spite of the fact that, through writing, learners can internalize vocabulary and sentence structures. Unfortunately, learners who are hearing impaired are often taught in traditional ways without considering their needs and potentials, resulting in a significant number of learners who are hearing impaired that have poor writing skills (Alemayehu, 2016, 2019).

Statement of the Problem

Researchers (e.g., Wolbers, 2008; Wolbers & Dostal, 2014) have extensively documented the challenges faced by hearing-impaired learners in writing and communicating. In Ethiopia, students with hearing impairments are often educated in inclusive classrooms or special schools, where they are taught the Amharic language. Additionally, some attend separate schools specifically designed for the deaf and hard of hearing, staffed by teachers who have graduated from higher education institutions (Feleketch, 2000). However, these instructors typically lack specialized training in teaching students with hearing impairments, which can lead to the use of instructional methods

designed for hearing students, potentially hindering effective learning outcomes (Wudnesh, 2023).

The lack of proficiency in sign language and insufficient training in teaching methods for students who are hearing impaired can significantly impede teachers' ability to effectively support these students in developing strong writing skills. As Berent and Clymer (2007) note, sign language is often the native language of students who are hard of hearing, making it essential for teachers to be proficient in this language. Furthermore, the scarcity of research examining the impact of trained teachers providing writing instruction to hearing-impaired learners makes it challenging to establish the effectiveness of such instruction, leaving a crucial knowledge gap in the field.

Prior to data collection, the researchers conducted informal discussions with teachers at the school to gain insight into the experiences of hearing-impaired students and learned that they were being taught in traditional ways. During the pilot study at Dagmawi Menelik and Victory schools, one of the researchers consulted with experienced Amharic language teachers specializing in special needs and sign language, inquiring about students who were hearing-impaired and struggled with writing in Amharic. This inquiry led to a dearth of local research on the topic. The only relevant study found was a master's thesis by Girma (1990), which focused solely on hearing students and demonstrated the effectiveness of IWI (Inclusive Writing Instruction) in improving their writing skills. The absence of research on writing skills for hearing-impaired learners, compounded by their unique challenges, motivated the researcher to investigate the use of IWI to enhance learning outcomes for these students. The findings of this research may contribute to both theoretical and practical applications of IWI.

Therefore, the purpose of the present study was to examine the impact of the IWI instructional method on the Amharic writing skills of grade seven hearing-impaired students at Alpha Special Primary School. In light of this purpose, the study is organized under the following two hypotheses: (1) there is a statistically significant difference between the mean scores of the Amharic writing achievement of the target group before and after intervention, and (2) There is a statistically significant difference between the mean scores for the pretest and posttest writing skills achievement of the target group of hearing-impaired students across all domains (sentence construction, sentence re-arrangement, complete sentence writing, punctuation mark, and guided composition).

Methods

Research Design

Among the various quantitative research methods, experiments provide the most rigorous test of hypotheses (Gall, Borg & Gall, 2005). The hypothesis of this experimental design was that learners who are hearing impaired and who receive interactive writing instruction (IWI) would make significant positive progress in sentence construction, sentence rearrangement, complete sentence writing, punctuation mark, and guided composition. One school was selected for the current single experimental group. The sample population of the study was grade seven students who were hearing impaired. Due to the small number of

participants, a single group (pretest and posttest) experimental design was employed to conduct the research making it more defensible as a rigorous approach to experimentation.

According to research recommendations (Marsden & Torgerson, 2012; Robin, 2009; Graziano & Raulin, 1998; Campbell & Cook, 2006; Robson, 2015), a single-group experimental design is considered suitable for small participant groups. This study involves two variables: the independent variable (interactive writing instruction method) and the dependent variable (writing skills). After a pretest, a grade seven Amharic language teacher was trained and monitored by the researcher to ensure the quality of the intervention. The teacher delivered 14 hours of interactive writing instruction (IWI) over a two-month period, with close supervision from the researcher.

Study Site

The place of the study (Alpha Special School) was selected based on its convenience for the researcher. The school has many years of experience in teaching the Amharic language only to learners who are hearing impaired, and it is close to AAU where the principal researcher lived and studied. According to a 2020 Addis Ababa City Administration annual education report, a relatively high number of learners who are hearing impaired were at Alpha Special School for the hearing impaired. As a result, the school as well as the grade level was considered due to the existence of a pool of students who met the criteria for participating in the study.

Participants

Ballance (2023) argued that selecting the study sample is one of the most important steps of the study, and it is part of the main population chosen by the researcher with various techniques. So the target population of this study was students with hearing impairment. According to the Ministry of Education, the total number of learners who are hearing impaired is small.

The participants were selected using the availability sampling technique and all seventh-grade students who were hearing impaired and attended Alpha Special School in 2021 participated in the study. There were seven students in grade seven, and all were considered for the present study. Additional characteristics of the research participants are presented in Table 1

Table 1

Demographic Characteristics of the Participants

Participants	Age	Sex	Degree of Hearing impairment
Participant I	14	M	Severe
Participant II	17	F	Severe
Participant III	15	M	Profound
Participant IV	15	F	Severe
Participant V	16	F	Severe

Participants	Age	Sex	Degree of Hearing impairment
Participant VI	18	M	Severe
Participant VII	17	M	Moderate

In Ethiopia, students typically begin grade seven at the age of 13. According to Table 1, most of the students with hearing impairments were expected to be in grades eight to twelve. Due to their varying degrees of hearing loss, many students struggled to acquire spoken language, even with the use of hearing aids.

However, students with moderately severe hearing loss may still be able to learn spoken language through the use of hearing aids, although this is not always the case. As a result, some students may not naturally acquire spoken language and instead rely on alternative methods, such as sign language. The teacher conducting the study also used sign language to communicate with the participants. The purpose of the study was to determine whether an IWI implemented through sign language would improve the writing skills of these seven students with hearing impairments.

Data Gathering Methods and Procedures

Data Gathering Methods

Data essential for this study were collected through a pretest and posttest method completed by the research participants. Many scholars recommend that this type of data gathering method is the most suitable tool for collecting accurate data that can help in making more accurate recommendations (Robson, 2015; Smith, 2007; Marsden & Torgerson, 2012). As a result, the researchers used this method to measure the target group's achievement in the improvement of writing skills (e.g., sentence construction, rearrangement, completing, punctuation mark usage and guided composition). Due to the absence of a control group to compare the outcome, the impact of the IWI method was measured by comparing the means of the scores of the participants for the pretest and posttest.

The pretest and posttest were designed based on the selected grade level (seventh grade) content of the Amharic textbook and the writing tasks. The tests were constructed by the researcher. The proportional weight for each writing strategy was evaluated according to the writing skill evaluation model of Jacobs et al. (1981).

Validity and Reliability

The reliability of the instruments was checked through various processes including a pilot study and peer reviews. The pilot study was conducted at Victory Special School that included six participants for 5 weeks. The validity and reliability of the tests were checked by the pilot study. In addition, the validity of the tests was evaluated by experts at Addis Ababa University. Generally, the data gathered during the pilot study and expert reviews served as input for the reconstruction of the items. In addition, the reliability of the instruments was checked using Cronbach's alpha coefficient, and the results are presented in Table 2.

Table 2

Reliability Coefficients of the Tests

Specific Domains	Pretest	Posttest
Sentence construction	0.935	0.975
Sentence rearrangement	0.870	0.975
Complete sentence writing	0.930	0.949
Punctuation mark	0.914	0.956
Guided composition	0.758	0.994
Total writing skills score	0.991	0.993
Average IWI	.889	.973

As indicated in Table 2, the total pretest and posttest scores were highly consistent and reliable. The average Cronbach's alpha coefficients, as indicated in the same table, for the pretest and posttest were .889 and .973 respectively. In addition, this study used quantitative data analysis by using paired samples t-test. Before data analysis was conducted, the normal distribution of the data for the parametric test was checked by the researcher as presented in Table 3 below.

Table 3

Results for Normal Distribution

Domain	Sample	Kolomogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Sentence Construction	Pre	.298	7	.060	.840	7	.099
	Post	.298	7	.200*	.913	7	.416
Sentence Rearrangement	Pre	.267	7	.142	.900	7	.330
	Post	.281	7	.100	.850	7	.122
Complete Sentence Writing	Pre	.307	7	.045	.842	7	.103
	Post	.208	7	.200*	.968	7	.881
Punctuation Mark	Pre	.119	7	.200*	.968	7	.984
	Post	.237	7	.200*	.871	7	.188
Guided Composition	Pre	.270	7	.132	.892	7	.287
	Post	.250	7	.200*	.852	7	.128
Total Score	Pre	.281	7	.101	.846	7	.113
	Post	.267	7	.140	.890	7	.276

According to the results presented in Table 3, the data were normally distributed because both the Kolmogorov-Smirnov and Shapiro-Wilk indicate that the significant levels of the data were above 0.05.

Data Gathering Procedures

Research data were collected through pretest and posttest writing skills tests given to the participants before and after the experiment (intervention). Due to the absence of a control group to compare outcomes, the effects of IWI were measured by comparing each student's pretest and posttest mean scores. Both the pretest and posttest consisted of measurements of sentence construction, sentence rearrangement, complete sentence writing, punctuation marks, and guided composition that can measure the writing skills and performance of students. The tests were assessed and graded by two trained Amharic teachers of Alpha Special School for the hearing impaired.

Procedure of the Experiment

As mentioned earlier, this study employed a pretest-posttest single-group experimental design. The pretest was given before the beginning of the intervention to all seven participants. The post-test was given at the end of the intervention, which lasted two months.

The study was carried out with hearing-impaired grade seven students. The students were selected using the compressive sampling technique due to the small size of the study group. Afterward, the researchers selected an Amharic language teacher based on experience and skill in sign language. A total of 14 hours of training for seven days were given to the selected Amharic language teacher. Through this process monitoring and intervention continued until the posttest period. The researchers systematically managed the entire process to ensure its integrity.

Then the pretest was administered to the participants and raw data were collected using an instrument based on the curriculum. Having fulfilled the requirements, a posttest was administered to the participants using the instrument developed from the curriculum. Finally, the data were analyzed, presented, and discussed and conclusions were drawn.

Variables

The independent variable for the present study was the interactive teaching method that included the pre-writing or planning phase, organization, composing, and revising for clarity and editing. The dependent variables, on the other hand, include the ability and writing performance of learners who were hearing impaired to engage in the following activities: sentence construction, sentence rearrangement, complete sentence writing, punctuation mark, and guided composition.

To control extraneous variables, the following measures were taken. There was only one teacher who was trained and conducted the intervention for the learners who were hearing impaired. The teacher was given additional responsibility to assess and prevent any extraneous variables until the post-test was conducted. The single experimental group was from the same grade level to monitor any possible extraneous variables by one teacher (like location, equipment, environment, time, and instructions).

To reduce the possibility of the pretest questions giving participants clues to what was the expected outcome and to improve their performance on the language and academic tests, two similar tests were developed following the sequence of the curriculum. These tests were

developed on the sequence of content and difficulty level of the school curriculum. The teacher was trained and the instructional strategies used were observed and monitored until the final posttest was completed. The purpose was to secure the quality of the experiment and maximize treatment fidelity for the researcher. To prevent unexpected phenomena within the social context, the class sessions were frequently observed and the site was evaluated to determine if the participants had some similar intervention and confirmed that the changes were only due to the IWI implemented to the sampled seven learners who were hearing impaired.

The Intervention

The intervention was conducted for two months by a well-trained Amharic language teacher who was skilled in sign language. The main objective of the intervention was to improve the writing skills of learners who were hearing impaired, because hearing impairment can affect written language performance. IWI can help students to focus better during the teaching and learning process and can improve their understanding. The instruction can support learners who are hearing impaired as the instruction includes visual aids (e.g., pictures, videos, and slideshows) that can make the sessions interesting and easier to understand and help in writing phrases and sentences related to the topic.

Main Content and Syllabus of the Intervention

The main content of the intervention was directly extracted from grade seven teacher's guide with some improvements by the researcher that included word building, sentence construction, and rearrangement of sentences, complete sentence writing, punctuation marks, and guided composition.

The Intervention Process

During the intervention process, IWI was implemented to write in the Amharic language for a variety of purposes. Using this teaching method, the teacher scaffolded instruction and transferred more responsibility to the students to support the learning process and students when they were engaged in shared or independent writing activities. The strategic instruction to students clearly followed the processes of teachers using words, teaching through sharing ideas between the teacher and students (interactive), building and cooperatively determining writing actions.

Each objective of the lesson aimed to build students' writing skills and implicit competence by providing writing skills practice and immediate feedback opportunities (Krashen, 1994). The teacher used whole-group instruction and Amharic texts. Another strategy was also used which involved visuals such as pictures, photos, realia, and diagrams. It allowed students to express their ideas in the class by using and representing ideas in sign language. Next, the students collaboratively translated their ideas into written Amharic in their exercise books.

Moreover, this practice allows learners who are hearing impaired to work together, share ideas, and move sequentially through creating texts, improving linguistic competence and producing meaningful written texts. During this process, it was hoped that students'

participation would increase as they might build their understanding of the grammar of the Amharic language and practice developing written texts including essay writing.

Data Analysis

Once the data collection was completed, the data obtained from the participants were coded and entered into SPSS for analysis. Statistical tests of significance were run at the alpha level of .05 or 95% confidence interval level. The data collected through the tests were analyzed using descriptive and inferential statistics. The mean and standard deviation of the scores from the pretest and posttest were compared. This study used paired samples t-test to analyze the impacts of interactive writing instruction intervention. Finally, the findings were presented systematically and discussed thoroughly.

Results

The main aim of this study was to test the hypothesis of whether the IWI technique would have an impact on learners who were hearing impaired in (1) improving their Amharic writing skills, (2) causing a difference between the mean scores of the target group before and after the intervention (pretest and posttest), and (3) triggering a significant difference between each writing strategy (e.g., sentence construction, sentence rearrangement, complete sentence writing, punctuation mark and guided composition). To measure the outcomes, a single experimental design was employed. Pretest and posttest data collection was conducted for grade seven learners who were hearing impaired.

The First Hypothesis

One of the research hypotheses was that the mean scores of Amharic writing achievement in the target group would be significantly different before and after the intervention, with a statistically significant difference expected between the two time points. Specifically, it was stated as follows: There is a statistically significant difference between the mean scores of the Amharic writing achievement of the target group before and after intervention. The results obtained are presented in Table 4.

Table 4

Paired Samples T-test Results of Writing Skills Tests

Domain	Sample	N	Mean	Std. Deviation	df	t-value	p-value	Sign. Level
Total Writing Skills Score	Pretest	7	34.10	10.63	6	12.44	0.000	0.80
	Posttest	7	62.07	13.5				

Table 4 above indicates that there was a statistically significant difference between the mean scores of the writing skills pretest and posttest taken by the target group. Before learning how to write through IWI (pre-intervention) the participants scored 34.10, whereas, after instruction using the IWI, their mean score was 62.07 (post-intervention). Based on the mean variance t (6) t= 12.44, p=0.000), pre-post Std. D= (10.63 and 13.5), Eta squared=

(0.80) statistics results were registered. This indicates a statistically significant difference at (≤ 0.05) between the pretest and posttest scores for the target group in writing skills.

The results above indicate that the IWI significantly influenced the Amharic writing skills of learners who were hearing impaired, and the results of the posttest were positively influenced by the intervention. Therefore, based on this finding, the null hypothesis of the study was rejected. In addition, this finding concurs with the findings of other similar studies (e.g., Elizabeth, 2009; Dostal & Wolbers, 2014; Wolbers, 2008; Wolbers et al., 2018).

The Second Hypothesis

As indicated earlier, the second hypothesis of this study proposes that there will be a statistically significant difference in performance across each of the five domains assessed: sentence construction, sentence rearrangement, complete sentence writing, punctuation mark usage, and guided composition. Table 5 presents the results obtained in this regard.

Table 5

Paired Samples T-test Results of Specific Writing Domains

Domain	Sample	N	Mean	Std. Deviation	df	t-value	p-value	Sign. Level
Sentence Construction	Pre-test	7	2.27	1.83	6	10.92	0.000	0.78
	Post-test		14.09	3.26				
Sentence Rearrangement	Pre-test	6	7.4	1.75	6	8.23	0.000	0.73
	Post-test		13.3	3.05				
Complete Sentence Writing	Pre-test	6	6.56	1.9	6	12.33	0.000	0.80
	Post-test		12.04	2.9				
Punctuation Mark	Pre-test	6	7.59	2.04	6	9.27	0.000	0.75
	Post-test		12.83	3.01				
Guided Composition	Pre-test	6	5.21	1.98	6	6.68	0.000	0.66
	Post-test		9.8	2.22				

The results in Table 5 demonstrate a statistically significant difference between the mean scores for the pretest and posttest writing skills achievement of the target group of hearing-impaired students across all domains. The data reveal that after learning to write using the IWI strategy, the participants showed significant improvements in their writing skills. Specifically, their posttest mean scores increased to 14.09 for sentence construction, 13.30 for sentence rearrangement, 12.04 for complete sentence writing, 12.83 for punctuation, and 9.80 for guided composition.

Although the *p* value of each domain was p=0.000, the standard deviation value before the intervention in each domain were 1.83 for sentence construction, 1.75 for sentence rearrangement, 1.9 for complete sentence writing, 2.04 for punctuation and 1.98 for guided composition. However, after they had learned through IWI, their posttest mean scores were 3.26 for sentence construction, 3.05 for sentence rearrangement, 2.9 for complete sentence writing, 3.01 for punctuation and 2.22 for guided composition. The Eta squared result for

sentence construction was 0.78, 0.73 for sentence rearrangement, 0.80 for complete sentence writing, 0.75 for punctuation and 0.66 for guided composition. There were significant differences at (≤ 0.05) for the target group of students.

The results above support the findings that IWI significantly influences Amharic writing skills of learners who are hearing impaired and the results of the posttest were positively influenced by the intervention. Furthermore, based on these findings, the null hypothesis of the study was rejected. These findings are consistent with the findings of other researchers (Elizabeth, 2009; Dostal & Wolbers, 2014; Wolbers, 2008; Wolbers et. al., 2018).

Discussion

Severe and profound hearing impairment can have enormous effects on an individual's holistic development; the resulting challenges in language development can slow and hinder their educational success. Delayed language can influence the ability of learners who are hearing impaired to develop communication skills needed for reading, writing, and speaking/signing (Alemayehu, 2019). Alemayehu (2019) further stated that unless appropriate intervention is applied, language hearing impairment has a delaying effect on language development. In this paper, the major findings from the qualitative data are discussed. The aim of the present study was to determine how effective IWI would be for improving the writing skills of learners who were hearing impaired. The results indicated that overall the participants improved their writing skills with respect to the dependent variables after receiving the intervention.

With reference to the first hypothesis, i.e., "there is a statistically significant difference between the mean scores of the pretest and posttest on Amharic writing achievement of the target group before and after intervention," it was observed that there was a significant difference between the mean scores of the pretest and posttest on writing ability of the target group. In the pretest measuring their writing skills before the use of IWI, the mean score was 34.10, whereas after they had learned through IWI, their mean score for total writing skills was 62.07. The results indicated that due to the intervention conducted by the classroom Amharic teacher, changing her instructional strategy from her traditional ways of teaching to IWI was effective and resulted in significant advances in the development of the writing skills for the participants.

According to Wolbers, (2008), the gains of students include complex sentence structures and improved written communication for all learners. The results further indicate that IWI significantly influences the Amharic writing skills of learners who are hearing impaired. Hence, the hypothesis which was stated as "there is a statistically significant difference between the mean scores of the target group Amharic writing achievement before and after intervention" is confirmed. In addition, these findings are supported by the findings from other researchers.

As already mentioned, the second hypothesis predicted that there would be a statistically significant difference between the scores of the writing skills domains assessed, including sentence construction, sentence rearrangement, complete sentence writing, punctuation, and guided composition. The analysis of the results showed a significant difference in the mean scores of the target group's writing skills from pretest to posttest.

Specifically, the mean scores on the pretest were: 2.27 for sentence construction, 7.4 for sentence rearrangement, 6.56 for complete sentence writing, 7.59 for punctuation, and 5.2 for guided composition.

After receiving instruction using the IWI, their mean score for sentence construction was 14.09, 13.3 for sentence rearrangement, 12.04 for complete sentence writing, 12.83 for punctuation and 9.8 for guided composition. Based on the mean variance t, (6) T- value scores were 10.92 for sentence construction, 8.23 for sentence rearrangement, 12.33 for complete sentence writing, 9.27 for punctuation and 2.68 for guided composition. Although the *p* value of each domain is p=0.000, the standard deviation value before the intervention in each domain was 1.83 for sentence construction, 1.75 for sentence rearrangement, 1.9 for complete sentence writing, 2.04 for punctuation and 1.98 for guided composition. However, after they had learned through IWI, their posttest mean scores were 3.26 for sentence construction, 3.05 for sentence rearrangement, 2.9 for complete sentence writing, 3.01 for punctuation and 2.22 for guided composition. This means there are significant differences at (≤ 0.05) in the target group students' writing skill scores.

The results indicate that the IWI significantly influences the Amharic writing skills of learners who are hearing impaired, and the results of the posttest are positively influenced by the intervention. Furthermore, based on these findings, the hypothesis of the study "there are statistically significant differences between the mean scores of the pretest and posttest on Amharic writing achievement for hearing impaired students before and after intervention" was confirmed. Several studies revealed that the writing skills of learners who are hearing impaired indicate weaknesses in spelling and punctuation, phrase and sentence construction, lack of vocabulary mastery and irregular sentence structures. Previous writing assignments for learners who are hearing impaired were fragmented, meaningless, and irrelevant and were very incoherent in terms of grammar and meaning. Researchers have revealed that the weaknesses are due to inaccessible language environments and a lack of early language intervention (Alemayehu, 2019; Dostal & Wolbers, 2014; Elizabeth, 2009; Wolbers, 2008; Wolbers et al., 2012, 2018). However, the same authors confirmed that the IWI intervention can bring significant changes in the writing skills of students with hearing impairment.

Conclusions and Recommendations

The participants who were hearing impaired exhibited significant improvements due to the IWI intervention. This study revealed that the lack of appropriate instruction, communication, and writing skills resulted in the lagging behind of learners who are hearing impaired in their normal development in terms of language and cognitive functions. After these students graduate and enter adulthood, their problems may often become long-lasting leading to poor academic achievement and unemployment. The results of the present study are encouraging in the sense that they promote the writing skills of learners who are hearing impaired. According to the results of this study, IWI provided plenty of opportunities for the participants to learn through different instructional strategies (e.g., visual scaffolds, models, videos, pictures, etc.) and specific teaching strategies (e.g., process and product writing approaches). As a result, many insightful implications for significant gains were identified. The first one is that the IWI method developed the Amharic writing skills of students with

hearing impairment and had a positive impact on students' writing performance. Moreover, IWI incorporates effective differentiated instructional strategies and assessment methods to cater to diverse learning needs.

Statistically significant differences were found between the mean scores of the target group before and after the intervention. Moreover, there is a statistically significant difference between each specific domain (e.g., sentence construction, guided composition, punctuation mark and composition). This method provided students with a positive learning environment that increased their writing skills. Thus, the key issue is early identification and mediation with appropriate and adequate support services for the learners who are hearing impaired to support their development of writing skills.

This study's results suggest that the IWI method has the potential to significantly improve the Amharic writing skills of students with hearing impairments and enhance their writing performance. To optimize the effectiveness of writing skill lessons for these students, it is crucial to take into account several key factors.

First, to enhance the effectiveness of writing instruction for students with hearing impairments, universities and colleges should prioritize equipping trainee teachers with the appropriate teaching methodologies for this student population. Second, a thorough comparison between the teaching approaches used by hearing-impaired teachers and those of non-hearing-impaired teachers when teaching deaf students should be conducted to identify best practices. Third, the Ministry of Education in Ethiopia should also organize in-service refresher courses or re-training programs for language teachers and school inspectors to ensure they are equipped to teach writing to students with hearing impairments.

Furthermore, the researchers of this study recommend that language teachers should employ a range of techniques and methods specifically designed for writing instruction for students who are hearing impaired. Moreover, extensive and in-depth research is necessary to investigate effective strategies for teaching and writing to students with hearing impairments.

Limitation of the Study

This study's findings should be viewed in the context of its limitations. Specifically, the study was conducted in a single special school using a single-group experimental design, which may not be representative of other schools or settings. Future research would benefit from expanding this study to include multiple schools and incorporating a control group and experimental design to increase the generalizability of the results. Additionally, in order to benefit more learners with hearing impairments, other schools for the hearing impaired should be encouraged to be included in the evidence-based IWI as part of curriculum implementation.

Ethical Statement

Prior to data collection, the researchers obtained a letter from Addis Ababa University and presented it to the school's principals and relevant authorities. Throughout the research process, we adhered to formal and rigorous ethical considerations. Before collecting data, all participants were informed about the research purposes, and measures were taken to ensure

their protection and welfare. Additionally, we ensured that confidentiality and anonymity were maintained throughout the data collection process.

Acknowledgments

We extend our sincere gratitude to the students with hearing impairments who kindly participated in this study, as well as to the school principals, sign language teachers, and data collectors for their valuable assistance in facilitating the data collection process.

References

Alemayehu T. (2003). Communication experience of language of deaf students in the special classes in Ethiopian. *Journal of Education 23(1).*

Alemayehu T. (2016). Quality of interpretation services and its implication in creating inclusive classrooms for deaf preparatory school students. *EASSRR 32*(2).

Alemayehu T. (2019). Language and socio-emotional development of congenitally deaf learners. *Zena-Lissan, 28(2), 1-28.*

Antia, S. D., Reed, S., & Kreimeyer, K. H. (2005). Written language of deaf and hard-of-hearing Students in public schools. *Journal of Deaf Studies and Deaf Education, 10*(3), 244-55. https://doi.org/10.1093/deafed/eni026

Ballance, O. J. (2023). *Sampling and randomization in experimental and quasi-experimental CALL studies: Issues and recommendations for design, reporting, review, and interpretation.* Cambridge University Press. https://doi.org/10.1017/S0958344023000162

Berent, G. P., & Clymer, E. W. (2007). *Professional development for educators teaching English for academic purposes to deaf students of English as a foreign language.* The Postsecondary Education Network International. http://www.pen.ntid.rit.edu/newdownloads/resources/documents/other/EAPProfDev.pdf

Botelho, M. (2003). *Multiple intelligences theory in English language teaching: An analysis of current textbooks, materials and teachers' perceptions* [Unpublished Master's Thesis]. http://www.ohiolink.edu/etd/sendpdf.cgi?ohioul079466683

Campbell, D, & Cook, J. (2006). *Experimental and quasi-experimental designs for research.* London: Longman ltd.

Caudery, T. (1997). *Process writing: Writing in the English language classroom.* Prentice Hall.

Dever, B. V., & Karabenick, S. A. (2011). Is authorative teaching beneficial for all students? A multilevel model of the effects of teaching style on interest and achievement. *School Psychology Quarterly, 26*(12), 131-144.

Donald, F. Moore & Martin, D. S. (2006). *Deaf learners' development in curriculum and Instruction.* Gallaudet University Press.

Dostal, H., & Wolbers. K., (2014). Developing language and writing skills of deaf and hard of hearing students, a simultaneous approach. *Literacy Research and Instruction*, *Vol.53, pp. 245-268.*

Elizabeth, G, (2009). *Teaching written language to students who are deaf or hard of hearing* [unpublished MA Thesis]. Washington University.

Feleketch Bahiru. (2000). *Social and academic problems of hearing impaired students in the Second cycle of primary school in selected special schools* [unpublished Master's Thesis]. Addis Ababa University.

Fountas, I., & Pinnell, G. S. (2006). *Teaching for comprehending and fluency: Thinking, talking, and writing about reading, K–8.* Heinemann.

Girma Gebre . (1990). *በአማርኛ ድርሰት የመጻፍ ክሂልን ለማዳበር መስተጋብራዊ ስልት (Intractive Approach) ያለው ተግባራዊነትና ውጤታማነት* [unpublished Master's Thesis]. Addis Ababa University.

Girma Wossenie. (2008). *Effects of instrumental enrichment and meditated learning experience on EFL vocabulary task performance of student with hearing impairments.* [Ph. D. Dissertation]. Addis Ababa University.

Geers, A. E. (2003). Predictors of reading skill development in children with early cochlear Implantation. *Ear and Hearing, 24*, 59 68.

Graham, S., & Hebert, M. (2010). *Writing to read: The evidence-base for how writing can improve reading.* The Carnegie Corporation of New York.

Graziano, M. & Raulin, L (1998). *Research Methods*: *A Process of Inquiry.* Harper Collins College Publishers.

Guarinello, A. C, Santana,A. P., Berberian,A.P & Massi,G. A. (2009). Deafness: Educational – historical aspects in the Brazilian context. In D. F.Moore & M.S. Miller (Eds.). *Deaf people around the world: Educational and social perspectives.* Gallaudet University Press

Gall, J. P., Gall, M. D., & dan Borg, W. R. (2005). *Appling educational research: A practical guide (5th ed.)*. Pearson Education.

Jacobs, H. L., Zinkgraf, S.A., Wormuth, D. R., Hartfiel, V. F., & Hughey, J. B. (1981). *Testing ESL composition: A practical approach*. Newbury House.

Jensen, E. (2005). *Teaching with the brain in mind* (2nd ed.). ASCD.

John, A., Marc, M., & Pamela, J. (2015). Deaf students' reading and writing in college: Fluency, coherence, and comprehension. *The Journal of Deaf Studies and Deaf Education*, 21, 303-309.

Karasu, H. P. (2004). *Assessment of writing skills of hearing impaired students who attend Mainstream classes* [Unpublished Master's Thesis], Anadolu University.

Karchmer, M. A., & Mitchell, R. E. (2003). Demographic and achievement characteristics of deaf and hard-of-hearing students. In M. Marschark, & P. E. Spencer (Eds.). *Oxford Handbook of Deaf Studies, Language, and Education* (pp. 21-37). Oxford University Press.

Kazu, I. Y. (2009). The effect of learning styles on education and the teaching process. *Journal of Social Sciences, 5(2), 85-94.*

Kluwin, T. N., & Blumenthal, K. (1992). Implementing a successful writing program in public Schools for students who are Deaf. *Exceptional Children 59*(1). http://find.galegroup.com

Krashen, S. D. (1994). The input hypothesis and its rivals. In N. C. Ellis (Ed.). *Implicit and explicit learning of languages* (pp. 45-77). Academic Press Limited

Marsden, E. & Torgerson, C. J. (2012). Single group, pre- and post-test research designs; some methodological concerns. *Review of Education, 38*(5), 583-616. 10.1080/03054985.2012.731208

Mccarthey, J., & Garcia, G. (2005). English language learners' writing practices and Attitudes. *Journal of Written communication*, 36-75.

Meyer, C. (2007). What really matters in the early literacy development of deaf children? *Journal of Deaf Studies and Deaf Education,12, 411-431.*

Mulugeta, K. (2019), *A study on teaching of reading and writing to deaf learners in primary schools in some part of Ethiopia* [unpublished MA Thesis]. Jimma University.

Ramsey, C. L. (1997). *Deaf children in public schools: Placement, context, and consequences.* Gallaudet University

Richards, J. C. & Renandya, W. A. (2002). *Methodology in language teaching: An anthology of current practice.* Cambridge University Press.

Robin, B. (2009). *Research methods and experimental Design: A set of notes suitable for seminar use Cambridge*. CUP.

Robson, C. (2015). *Real world research: A resource for social scientists and practitioner Researchers*. Blackwell.

Safitri, D., & Ma'rifah, U. (2021). The effectiveness of interactive writing instruction toward hearing impaired students' ability in writing skill at SMALB-B Kemala Bhayangkari 2 Gresik. *Journal of English Teaching, Literature, and Applied Linguistics, 3*(2), 24-33. https://doi.org/10.30587/jetlal.v3i2.2256

Schirmer, B. R., & McGough, S. M. (2005). Teaching reading to children who are deaf: Do the conclusions of the national reading panel apply? *Review of Educational Research*, *75*(1), 83-117. https://doi.org/10.3102/00346543075001083

Smith, S. (2007). Using action research to evaluate the use of brain based teaching strategies in the classroom. *International Journal of Learning, 13*(9), 121-126.

Sousa, D. A. (2009). *How the brain influences behavior: Management strategies for every classroom.* Corwin Press.

Spencer, L., & Brunce, T. (2008). Evaluating phonological processing skills in children with prelingual deafness who use cochlear implant. *Journal of Deaf Studies and Deaf Education 14*(1):1-21. 10.1093/deafed/enn013

Tesfaye, B. (2014). Signed language proficiency and reading comprehension skill of deaf children in special and integrated primary schools in Addis Ababa. *Turkish International Journal of Special Education and Guidance & Counseling, 13*, 1300-7432.

Tirussew, Savola inen, H. Agedew, R., & Daniel, D. (1995). *Base line survey on disabilities in Ethiopia.* Institute of Educational Research, Addis Ababa University.

Wolbers, K. A. (2008). Using balanced and ınteractive writing ınstruction to ımprove the higher order and lower order writing skills of deaf students. *Journal of Deaf Studies and Deaf Education, 13*(2), 257-277. https://doi.org/10.1093/deafed/enm052

Wolbers, K., Dostal, H. & Stephenson, B. (2012). *Strategic and interactive writing instruction (SIWI): A two-year focus on the language and literacy development of deaf and linguistically diverse students.* Tenness Higher Education Commission.

Wolbers, K., Dostal, H., Graham, S, Branum M. L., Kilpatrick, J. & Saulsburry, R. (2018). *Strategic and interactive writing instruction: An efficacy study in Grades 3-5*. Exceptional, deaf, and interpreter education Faculty Publications.

Wormelli, R. (2007). *Differentiation: From planning to practice grades 6-12*. Stenhouse Publishers.

Wudnesh, Tilaye. (2023). *Education of students with hearing impairments in regular classrooms at Yekatit 23 primary school in Bahir Dar town* [Unpublished Master's Thesis]. Addis Ababa University.

Guidelines to Authors

Authors are required to use the standard format of Bahir Dar Journal of Education and pass through and apply the following author guidelines.

General Information

- Manuscripts will be considered for publication on the understanding that they have not been previously published and are not simultaneously submitted or published elsewhere.
- BJE publishes only original research works and investigations. This does not refer to papers presented orally at symposia or other scholarly gatherings.
- The Editorial Board reserves the right of final acceptance, rejection, and editorial correction of the papers submitted.
- Authors are responsible for all statements made in their work including changes made by the copy editor.
- Priority and time of publication are governed by the Editorial Board's decision.

Style and Format

Authors should adhere to the following style and format guidelines before submitting their manuscripts for publication.

Title Page

- Include a concise and informative title for the article, avoiding abbreviations and formulas.
- Provide the name(s) of the author(s).
- Indicate the title(s), academic rank(s), and affiliations of the author(s) with an asterisk.
- Include the complete address of the author(s) (institution, telephone, email) for correspondence.
- Note any relevant information regarding the presentation of the paper at a meeting or if it is part of a series of studies at the end of the manuscript.

Degree of Author Contribution

- Authors should declare their individual contributions to the research.
- If the names are listed in alphabetical order, equal contribution is presumed.
- Otherwise, the degree of contribution is determined by the order in which the names appear, unless indicated by the authors.
- The author whose name appears first will be the primary contact for correspondences unless otherwise specified. Provide complete contact details.

A/ Guideline for Original Research Articles

- Include an abstract of a maximum length of 200 words, highlighting the purpose of the research, design and methods, major results, and conclusions.
- Provide a maximum of 6 keywords immediately after the abstract.
- Use typewritten font 12 Times New Roman with double spacing on A4 paper and normal margins.
- Limit the article to a maximum of 8,000 words. The maximum word limit for qualitative research articles is 8500.
- Number all pages and organize the article into clearly defined and numbered sections. The major sections are 'Introduction', 'Methods', 'Results', 'Discussion', 'Conclusions and Recommendations/Implications', and 'References'.
- Follow the recent APA format for high-quality computer graphics submitted as figures and tables.
- Avoid redundancy by not excessively describing the data in the text.
- When using artworks and other graphics, provide proper descriptions and information about the creator, date created, title of the work, place of publication, publisher, and type of material.

Citation and References

- Follow the latest APA citation and referencing style. For more information, visit https://apastyle.apa.org/products/publication-manual-7th-edition?tab=11
- Ensure that all references cited in the text are properly indicated in the reference list section and vice versa.
- Avoid citing sources in the abstract.
- Indicate "in press" for accepted publications.

Language and Spelling Rules

- The manuscript must be written either in English or Amharic.
- If it is in English, it should be either in American or British English, but not a mixture of the two.
- Avoid sexist, racist, and biased language with respect to gender, racial and ethnic identity, disability, and age.

Responsibility for Views

The author(s) retain(s) responsibility for all statements made in the article. They should not be considered as reflecting the opinions of the journal's editors or the publisher.

Sponsoring Information

If the research is sponsored or supported by an organization, provide a brief statement describing the details.

B/ Reviews

BJE accepts submissions of both empirical and theoretical reviews. Reviews should include a title and an abstract of 150 words. The main body should be between 3000 and 6000 words, including tables, figures, and references.

The main body of review articles should include sections on introduction, review, methods, results, discussion, and conclusion. All reviews should follow the latest APA publication guidelines.

C/ Book Reviews

Book reviews submitted to BJE must be concise, with a word limit of 1000 to 2000 words, and include an abstract of no more than 100 words. They should adhere to the latest APA format guidelines and be written by individuals with a relevant educational background in the field.

Each review should include essential details such as the title of the book, author, genre/trope, format, length, and publication date. The review should offer insightful analysis of the book's content and quality, with sections dedicated to an abstract, introduction, brief description, critical review, strengths and weaknesses, conclusion, and references.

D/ Reflections

While writing a reflective article, it is important to ensure that the reflections are carefully considered, offer guidance, suggest ideas, and maintain academic integrity. The abstract should be concise, with a maximum of 150 words. The main body of the article should range between 2000 and 5000 words.

Reflective articles should include an introduction, a reflection or discussion section, a conclusion or concluding remark, and a section for references. It is recommended that articles follow the recent APA publication guidelines to ensure compliance with academic standards.

E/ Editorials

Editorials need to be concise, informative, and provide commentary on the contents of the articles published in a particular issue of the journal. Usually, they serve as a platform to share the insights, opinions and recommendations of the articles published in the new issue.

Editorials should not only highlight the articles featured in a given issue, but also delve into a specific critical educational issue, discussing its current situation, challenges, and possible interventions for improvement.

Editorials need to have an abstract of 120 words maximum, with three to six keywords. The main body of the editorial should be between 1000 and 2000 words. Like any manuscript, editorials should have a reference section, and strictly adhere to the recent APA publication guideline.

VOLUME 24 NUMBER 2 MAY 2024 ISSN: 1816-336X (Print) 2415-0452 (Online)

Special Issue (Early Grade Reading Development)

EDITORIAL

RESEARCH ARTICLES