

Early Grade Reading Instruction and Teacher Experiences: A Mixed Methods Analysis of Strategy Use and Effectiveness across Urban and Rural Schools in Sidama, Ethiopia

PETROS TIBBO DEMBI¹, DR. MEKASHA KASSAYE GOBAW (PhD)²

1. PhD fellow, Center for Comparative Education and Policy Studies Specializing in International and Comparative Education, Addis Ababa University, and
Faculty Member of Hawassa University, College of Social Sciences and Humanities,
Department of Sidaamu Afoo and Literature
2. Dr. Mekasha Kassaye Gobaw (PhD) (an associate professor at the Center for Comparative Education and Policy Studies at Addis Ababa University.

Corresponding Author

PETROS TIBBO DEMBI

PhD fellow, Center for Comparative Education and Policy Studies
Specializing in International and Comparative Education, Addis Ababa University, and
Faculty Member of Hawassa University, College of Social Sciences and Humanities,
Department of Sidaamu Afoo and Literature

ORCID iD: <https://orcid.org/0009-0006-3673-3873>

Correspondence concerning this article should be addressed to Petros Tibbo, Email:
petrostibbo@hu.edu.et.

ABSTRACT

This study employed an explanatory sequential mixed-methods design to investigate early grade reading instruction in Ethiopia's Sidama Region. Its primary purposes were to compare the quantitative efficacy and frequency of reading strategy use between urban and rural school settings for Grades 1–3 and qualitatively explore teachers' experiences, challenges, and support mechanisms related to reading strategy instruction in these diverse contexts. Data were collected using two instruments: closed-ended questionnaires administered to 321 Sidaamu Afoo teachers and structured classroom observations of a subset of the participants. The questionnaires quantified the frequency of various reading practices and comprehension strategies, while the observations provided qualitative insights into classroom interactions, instructional methods, and content delivery. Quantitative results revealed statistically significant disparities, with urban teachers implementing strategies such as reading aloud, silent reading, summarization, and skimming/scanning more frequently. However, both groups showed limited engagement with

higher order comprehension skills. Qualitative findings confirmed these trends, showing that while an intervention improved teaching practices in both settings, urban schools exhibited more pronounced gains in classroom organization and instructional methods than did rural schools. The study further identified that professional development opportunities, teaching resources, and institutional support were more accessible in urban areas, contributing to the observed disparities. This research offers a nuanced comparative analysis essential for informing equitable educational policy in Ethiopia, emphasizing that effective reading instruction is shaped by contextual factors. It recommends context-sensitive, tailored training programs that address the structural and resource constraints of rural schools and calls for further longitudinal research into sustainable strategies for improving reading instruction in local languages such as Sidaamu Afoo.

Keywords: Early Reading, Teaching Strategies, Urban-Rural, Mixed Methods, Sidaamu Afoo

INTRODUCTION

Acquiring fundamental reading skills in the early grades is a crucial global challenge that serves as the foundational pillar for all subsequent academic achievements and lifelong learning (Habók & Magyar, 2019; Palani, 2012). Despite significant governmental and non-governmental interventions aimed at boosting primary school enrollment in Ethiopia over the last two decades, persistent and alarming gaps remain in foundational literacy outcomes (DeStefano & Elaheebocus, 2009; Ministry of Education, 2015). Research, including national assessments such as the Early Grade Reading Assessment (EGRA), consistently indicates that a substantial proportion of Ethiopian children remain non-readers or score exceptionally low in reading comprehension after two to three years of schooling, signaling a profound learning crisis (Dugasa et al., 2022; Piper, 2010).

A central factor contributing to this crisis is the suboptimal use and instruction of reading strategies (RSs) (Kavani & Amjadiparvar, 2018). While explicit strategy instruction has been proven to enhance students' reading comprehension and metacognitive awareness across various international contexts, challenges persist in translating this knowledge into effective classroom practice in Ethiopia (Chinpakdee & Gu, 2021; Yan & Kim, 2023). Studies conducted in the Sidama Region have previously identified that teachers often possess limited familiarity with explicit reading strategies and educational policies, which in turn hinders student performance (Alemu, 2016; Getachew et al., 2018). Furthermore, infrastructural limitations, such as the scarcity of age-appropriate reading materials and poor school leadership support, compound the instructional difficulties that teachers face in the region (Merga, 2020; SNNPR Education Bureau, 2013).

However, most existing studies have focused broadly on secondary or primary English language learners (e.g., Abebe Damtew, 2024; Mulatu & Regassa, 2022) or have analyzed implementation challenges without a dedicated focus on spatial variations. The effectiveness and lived experiences of reading strategy instruction are rarely compared between urban and rural settings within the same regional context, a comparison vital for informing equitable resource allocation and tailored teacher-development programs. Disparities in educational outcomes are frequently exacerbated by location, with rural schools often facing compounded challenges related to resource access, professional development and community support (Shahnaz & Gandana, 2021). This study addresses this critical gap by providing a nuanced comparative analysis of reading strategy use and efficacy within the Sidama Region.

Therefore, the current study employs an explanatory sequential mixed methods design to investigate the implementation, efficacy, and teacher perceptions of reading strategy use in grades 1–3. Specifically, this research aims to (1) compare the quantitative efficacy of early grade reading strategy use between urban and rural school settings and (2) explore teachers' qualitative experiences, challenges, and support mechanisms related to reading strategy instruction in these diverse geographical contexts. By triangulating quantitative performance data with rich qualitative insights, this study offers evidence-based recommendations to regional educational bodies for developing context-specific pedagogical interventions that enhance foundational literacy outcomes across the Sidama Region.

Theoretical Underpinnings of Reading Acquisition

Several influential theories underpin the understanding of how individuals acquire reading skills, informing current pedagogical approaches.

The Simple View of Reading

In the Simple View of Reading, Gough (1986) posits that reading comprehension (RC) is the product of two main components: decoding (D) and linguistic comprehension (LC). This can be represented by the following formula: $RC = D \times LC$. Decoding refers to the ability to accurately and fluently translate written words into spoken language, whereas linguistic comprehension refers to the ability to understand spoken language. This model highlights that deficits in either decoding or linguistic comprehension can impede overall reading comprehension. This emphasizes the necessity of strong foundational skills in both areas for successful reading.

The Dual-Route Cascading Model

The Dual-Route Cascading Model (DRC), proposed by Coltheart in 2001, offers a detailed cognitive explanation of how skilled readers process words. This influential model posits that word recognition occurs via two primary routes that operate in parallel, allowing flexible and efficient reading. The continuous flow of information between these routes, known as cascading, is a key feature that enables both speed and accuracy in word recognition.

The first route is the Lexical Route, often referred to as whole-word recognition. This mechanism is primarily utilized for familiar words only. It involves a direct, automatic process in which the visual form of a word accesses a mental store or lexicon of already known words. This direct access allows for rapid and automatic recognition, making it the default and most efficient process for fluent readers encountering common vocabulary.

The second route is the Sublexical Route, or Phonological Decoding. This route is essential when a reader encounters an unfamiliar word or non-word (a pronounceable nonsense word, like *blick*). It involves systematically breaking down the word into its constituent letters and sounds (phonemes) and then blending those sounds together to successfully pronounce the word. This decoding process is crucial for reading acquisition, as it provides the foundational skills necessary for tackling new vocabulary and is often the primary focus of early reading instruction. The DRC model, by highlighting the simultaneous operation of these two routes, underscores the critical importance of developing both direct word recognition and robust phonological decoding skills to achieve reading proficiency.

Sociocultural Theory

The fundamental differences between the cascading model and Vygotsky's Sociocultural Theory lie in their primary application and philosophical approach to knowledge transmission. The cascading model, typically employed in large-scale Teacher Professional Development (TPD) initiatives, is a top-down, hierarchical system where information and skills are transmitted from expert trainers to primary trainers, who then train secondary trainers, and so on, until the information reaches the target audience of in-service teachers (Chidaba & Mokhele, 2012; Hayes, 2000). This model is largely *transmission-oriented* and prioritizes efficiency, cost-effectiveness, and reach (Engelbrecht et al., 2007). In contrast, Vygotsky's theory, particularly the concept of the Zone of Proximal Development (ZPD), is a sociocultural framework for *cognitive development and learning*, emphasizing that knowledge is actively constructed through social interaction and dialogue with a More Knowledgeable Other (MKO) (Vygotsky, 1978). While the cascading model focuses on the *dissemination* of a fixed body of content, Vygotsky's theory centers on the *process* of development, where learning leads to development, and support is temporary and responsive. A key criticism of the cascade model is the dilution and misinterpretation of content as it is passed down through multiple layers, often lacking the collaborative, reflective, and contextualized elements necessary for deep learning (Hayes, 2000).

The Role of the Teacher in Scaffolding Learners' Comprehension

The teacher's role in scaffolding learners' comprehension, rooted firmly in Vygotsky's Sociocultural Theory, is to act as the More Knowledgeable Other (MKO) who provides temporary, adjustable support to the learner within their Zone of Proximal Development (ZPD) (Vygotsky, 1978). Scaffolding is a dynamic and interactive process that moves students from assisted performance to independent mastery (Hammond & Gibbons, 2005). For reading comprehension, this involves the teacher as follows:

- Modeling comprehension strategies (e.g., summarizing, questioning, clarifying, predicting) through "think- alouds" to make invisible cognitive processes explicit (Palincsar & Brown, 1984).
- Breaking down complex reading tasks (e.g., analyzing dense texts) into smaller, manageable steps.
- Providing contingent support (hints, prompts, leading questions, visual aids) that is tailored to the student's immediate needs and gradually withdrawing this support as the learner's competence grows.
- Engaging the learner in shared reading experiences and dialogic interactions, where the teacher and student co-construct meaning (Vygotsky, 1978). By engaging in these practices, the teacher's goal is to enable the learner to internalize the comprehension strategies, allowing socially mediated behavior to become self-regulated inner speech and independent problem-solving (Vygotsky, 1962/1986).

Justification for the Use of Both Frameworks

Both frameworks can be justified based on Vygotsky's Sociocultural Theory, although they serve distinct purposes.

Despite its transmission-based limitations, the cascading model for TPD can be justified as a necessary structural tool for widespread cultural change and diffusion within the educational system, particularly in developing countries or large-scale educational reforms, where cost-effectiveness and time efficiency are paramount (Engelbrecht et al., 2007). Vygotsky's theory emphasizes the influence of cultural tools and societal practices on cognitive development (Vygotsky, 1978). In this context, TPD, even via a cascading structure, is a mechanism for introducing new cultural tools (e.g., innovative teaching methodologies and curricula) to a large body of teachers, who are themselves MKOs in the students' ZPD. To align the cascading model more closely with Vygotskian principles, Hayes (2000) suggests incorporating features that make the training experiential, reflective, and open to reinterpretation, diffusing expertise widely to foster a community of practice where knowledge is socially constructed rather than merely transmitted.

Vygotsky's Sociocultural Theory is fundamentally justified by its focus on learning as a social process and development through guidance (Vygotsky, 1978). The framework provides a pedagogical blueprint for effective classroom practice. The ZPD highlights that effective instruction must be proactive, targeting the learner's potential development rather than just their current, actual level. By emphasizing scaffolding and social interaction (e.g., shared reading, collaborative tasks), the theory ensures that the learning process is meaningful, supported, and leads to the internalization of higher mental functions, which is the ultimate goal of instruction (Vygotsky, 1962/1986). The theory justifies its use by shifting the focus from individualistic discovery to the essential, deliberate role of the MKO (teacher) in mediating cultural knowledge and tools, thus fundamentally shaping a child's thought processes.

Landmark Research: Illuminating the Building Blocks of Reading

Influential reports, such as the National Reading Panel (NRP) (2000) and the National Early Literacy Panel (NELP) (2008), have made vital contributions to our understanding of the fundamental elements of early reading development. These comprehensive meta-analyses of extensive research provide a solid, evidence-based foundation for literacy instruction in the early grades. The NRP, convened in the United States, meticulously examined scientific research on reading instruction to identify the most effective approaches, underscoring the critical importance of five key areas: Phonemic Awareness is essential, as it is the understanding that spoken words are composed of individual sounds (phonemes) and the ability to manipulate these sounds; research consistently shows a strong causal link between these skills and later reading success (Adams, 1990; Stanovich, 1986), with effective instruction involving segmenting, blending, and manipulating sounds. Second, phonics involves understanding the systematic relationship between letters and sounds. Explicit and systematic phonics instruction—teaching letter-sound correspondences directly and in a logical sequence—is significantly more effective than implicit methods (Ehri, 2001), helping students decode words by blending sounds and encoding words by segmenting sounds into letters.

Third, fluency—the ability to read text accurately, quickly, and with expression—is crucial because fluent readers can allocate more cognitive resources to comprehending the text rather than struggling with decoding (LaBerge, 1974). Strategies such as repeated reading, guided oral reading, and appropriately leveled texts enhance fluency (Rasinski, 2006). A strong vocabulary, or knowledge of word meanings, is the fourth pillar, as it is essential for reading comprehension

(Anderson, 1981); effective instruction includes direct teaching, encouraging wide reading, and using context clues (Beck, 2013). Finally, Comprehension is the ultimate goal, involving complex cognitive processes such as making inferences, summarizing, and monitoring understanding (Kintsch, 1988). Effective comprehension instruction teaches specific strategies, such as asking questions, making predictions, and summarizing (Duke, 2009).

Building upon the NRP's findings, the NELP (2008) specifically focused on literacy development in young children (birth to age five) and found that: Their report reinforced the importance of NRP foundational skills while also highlighting three other significant areas. Oral Language Development is crucial, as a rich foundation in vocabulary, grammar, and narrative skills is a strong predictor of later reading success (Dickinson, 1987), nurtured through adult interactions, storybook reading, and conversation. Furthermore, Print Awareness, which is a child's understanding of the forms and functions of print, such as knowing that print carries meaning and understanding reading directionality (Clay, 1979)—is vital. Lastly, Alphabet Knowledge (familiarity with the names and sounds of letters) is a powerful predictor of early reading achievement, as noted by the Common Core State Standards (CCSSI) for English Language Arts (ELA) in the United States (CCSSI, 2010).

Methodological and Scope Limitations

A key critique of both the NRP and NELP is the narrowness of the research base included in their meta-analyses (Yatvin, 2003). This restricted scope is primarily due to the panels' heavy focus on experimental and quasi-experimental studies. This methodological preference led to the exclusion of a vast body of qualitative research and other studies that did not strictly adhere to the criteria. Critics argue that this exclusion favors certain instructional approaches, such as systematic phonics, over others and severely limits the exploration of complex, effective, real-world educational practices, particularly in varied classroom settings (Yatvin, 2003). Furthermore, while the NRP addressed five main areas (phonemic awareness, phonics, fluency, vocabulary, and comprehension), it was criticized for a lack of comprehensive topic coverage (Yatvin, 2003). It failed to cover many other significant issues in reading instruction, such as student motivation, school-wide factors, and the role of trade books. Similarly, NELP (2008) also focused on a limited set of early literacy skills and interventions, leaving out broader contextual factors.

Limitations Regarding Diverse Learners

The most significant critique of diverse educational contexts is the limited generalizability of the findings, particularly for students who do not represent the majority population in the original studies. A major gap lies in the inadequate focus on English Learners (ELs), as the NRP research base has historically focused on English-only (EO) speakers, largely neglecting the specific linguistic and educational needs of ELs (August & Shanahan, 2006; Lesaux et al., 2010). ELs face the dual challenge of acquiring a new language while simultaneously mastering content, requiring instructional approaches that often integrate first-language support and address the unique demands of academic language, which frequently extend beyond the scope of instruction reviewed by the panels (August & Shanahan, 2006; Lesaux et al., 2010).

Concerns have also been raised regarding socioeconomic and cultural diversity. While the NRP's focus on foundational skills is crucial, critics argue that it may overshadow the need for rich, culturally responsive, and engaging texts and instruction (García, 2005). Students from low-

income backgrounds, in particular, often lack the opportunities to build the oral language and world knowledge necessary for deep comprehension and vocabulary acquisition; therefore, the reports' recommendations may be insufficient without broader curriculum reform (Neuman, 2010). Finally, while the NRP's recommendations have been applied to students with disabilities, such as those with emotional and behavioral disorders (E/BD) or learning disabilities (LD), the actual number of studies in the original review that specifically targeted these diverse populations was small, leaving significant gaps in the evidence base for effective, differentiated instruction (Lane et al., 2010).

These landmark reports provide a clear, evidence-based framework for understanding the essential building blocks of reading, profoundly influencing educational standards and curricula worldwide.

Revisiting Standards: The Common Core Case

The findings of the NRP (2010) and NELP (2008) have significantly shaped educational standards and curricula, exemplified by the Common Core State Standards (CCSSI) for English Language Arts (ELA) in the United States (CCSSI, 2010). The CCSSI explicitly integrates the five components of reading identified by the NRP, emphasizing the development of phonological awareness, phonics, fluency, vocabulary, and comprehension across all grade levels.

The ELA standards outline specific learning progressions for each of these areas, ensuring that students develop a strong foundation in foundational skills in the early grades and build upon these skills to become proficient and critical readers in later grades. For instance, kindergarten standards emphasize phonological awareness and letter recognition, whereas first-grade standards focus on systematic phonics instruction and developing reading fluency. As students' progress, the standards increasingly emphasize vocabulary acquisition through reading complex texts and developing sophisticated comprehension strategies (CCSSI, 2010).

Beyond the United States, the principles articulated in the NRP (2010) and NELP (2008) reports have informed curriculum development and teacher-training programs in numerous countries. The emphasis on explicit and systematic instruction in foundational reading skills, alongside a focus on developing oral language and print awareness in the early years, has become a widely accepted framework for effective early literacy education.

The Global Pursuit of Literacy: Transcending National Boundaries

The pursuit of literacy transcends national boundaries, with international initiatives like the Jomtien Declaration (UNESCO, 1990) and the Dakar Framework for Action (UNESCO, 2010) underscoring the global commitment to making primary education accessible to all as a fundamental human right.

The World Conference on Education for All, held in Jomtien, Thailand, in 1990, marked a significant turning point in global commitment to basic education. The Jomtien Declaration articulated a vision of universal access to quality education, emphasizing the importance of literacy as a foundational skill for lifelong learning and active citizenship (UNESCO, 1990). This conference galvanized international efforts to increase school enrollment and improve the quality of education in developing countries.

Building upon the Jomtien Declaration, the World Education Forum, held in Dakar, Senegal, in 2000, reaffirmed the Education for All (EFA) commitment and adopted the Dakar Framework for Action (DFA). This framework set specific goals, including expanding and

improving comprehensive early childhood care and education, achieving universal primary education by 2015, and increasing adult literacy rates (UNESCO, 2010). The Dakar Framework emphasizes the need for a holistic approach to education, recognizing the interconnectedness of early childhood development, primary education, and adult literacy. These global initiatives have played a crucial role in raising awareness about the importance of literacy and mobilizing resources to support educational development worldwide, fostering international collaboration and the sharing of best practices in literacy instruction.

Challenges in Sub-Saharan Africa: The Case of Ethiopia

Despite substantial global advancements in increasing school enrollment, numerous nations in sub-Saharan Africa, notably Ethiopia, continue to struggle with significant hurdles in both guaranteeing the quality of primary education and attaining universal literacy (World Bank, 2021). These challenges stem from a confluence of interconnected factors that impede educational progress throughout the continent.

One of the foremost constraints is the limited resources. Many countries in sub-Saharan Africa contend with considerable financial constraints, which invariably restrict vital investments in essential education infrastructure, robust teacher training, and the provision of adequate, quality learning materials (Lewin, 2009). Compounding this, the issue of teacher quality and training is critical. Ensuring a sufficient pool of well-trained and motivated teachers, especially in rural and underserved areas, remains an uphill challenge. Existing teacher preparation programs often fall short, failing to thoroughly equip educators with the essential skills and pedagogical knowledge needed to excel in the classroom (Akyeampong, 2017).

Furthermore, the vast linguistic diversity of the region presents unique complexities. The sheer number of languages in many African countries complicates curriculum development and instruction in several ways. Key decisions regarding the appropriate language of instruction and the development of effective strategies for teaching reading in multiple languages are inherently difficult and complex (Brock-Utne, 2001). Beyond structural challenges, pervasive socioeconomic factors also significantly impact educational outcomes. Poverty, malnutrition, and limited access to healthcare can negatively affect a child's school readiness and their inherent ability to learn to read. Moreover, parents' literacy levels and the overall quality of home learning environments are critically important in shaping early literacy development (Baker, 1995). Finally, infrastructure and access issues create physical barriers to receiving quality education. Inadequate infrastructure, including a persistent lack of classrooms, sufficient learning materials, and reliable transportation options, severely hinders access, particularly for children living in remote and rural areas (UNESCO, 2019).

Ethiopia's Prioritization of Early Grade Reading

In Ethiopia, the Ministry of Education has prioritized early grade reading, utilizing tools such as the Early Grade Reading Assessment (EGRA) to monitor and improve literacy outcomes across its diverse linguistic regions, including the Sidama Regional State (Ministry of Education, 2016). This highlights the government's recognition of the critical importance of early literacy as a foundation for future educational success and overall development in the country.

The Early Grade Reading Assessment (EGRA) is a widely used tool for assessing foundational reading skills in early grades (RTI International, 2010). It typically measures letter knowledge, phonological awareness, oral reading fluency, and reading comprehension. By

administering the EGRA, the Ethiopian Ministry of Education can gather data on students' reading performance, identify areas of strength and weakness, and monitor the impact of interventions to improve early-literacy outcomes. The focus on diverse linguistic regions, such as the Sidama Regional State, acknowledges the importance of addressing the specific needs and challenges of teaching reading in local languages.

The Existing Research Gap: Focus on Local Language Reading Strategies in Ethiopia

Despite existing research exploring various aspects of reading challenges across different contexts (Snowling, 2011), there remains a notable gap in the investigation of effective reading instruction strategies tailored to local languages within Ethiopia. This crucial point underscores the significance and potential contribution of this study. While the general principles of effective early reading instruction outlined by bodies such as the National Reading Panel (NRP, 2000) and the National Early Literacy Panel (NELP, 2008) likely apply across various languages, the practical application of these principles must be adapted to the unique characteristics of different writing systems and linguistic structures (Geva, 2000). For instance, the nature of phonics instruction will differ significantly between alphabetic languages such as English and languages with different orthographic systems. Similarly, customized strategies for developing phonological awareness are necessary to address the specific phonological features of each language. In the Ethiopian context, with its diverse array of languages—including Amharic, Oromo, Tigrinya, and Sidaamu Afoo—there is a critical need for research investigating effective reading instruction strategies specifically designed for these local languages. This research should meticulously consider several key factors: Orthographic Characteristics (the relationship between letters and sounds in each language), Phonological Structures (the sound systems and their implications for instruction), Available Resources (the availability of culturally relevant and linguistically appropriate reading materials), Teacher Training and Preparation (ensuring educators can effectively teach reading in their students' specific local language(s)), and the Cultural and Contextual Factors that influence reading development within the socio-cultural setting.

Research on early grade literacy across sub-Saharan Africa consistently reveals marked disparities between urban and rural schools in both instructional quality and reading outcomes. Studies from Tanzania, Benin, Burkina Faso, Togo, and Cameroon demonstrate that rural learners typically score significantly lower on foundational reading tasks, a pattern largely explained by unequal access to resources, teacher preparation, and home literacy environments (Ndijuye & Beatus, 2022; Sanfo, 2023). These findings indicate that contextual and pedagogical differences, rather than inherent learner ability, account for much of the gap, underscoring the need for research that disentangles how teachers' specific reading-instruction strategies interact with local conditions. In the Ethiopian context, where the national commitment to early grade literacy remains central to the General Education Quality Improvement Program (GEQIP-E), empirical evidence on how teachers adapt reading strategies across diverse settings remains limited.

Evidence from classroom-based investigations shows that many Ethiopian primary-grade teachers possess incomplete knowledge of the key components of reading—phonemic awareness, phonics, fluency, vocabulary, and comprehension—and therefore employ inconsistent instructional practices inconsistently (Yisihak & Damtew, 2024; Ukumo, 2024). While scripted lessons and coaching interventions have improved reading outcomes in several regional languages, including Sidaamu Afoo, little is known about whether teachers in rural schools apply these strategies with the same fidelity or perceived effectiveness as their urban counterparts (Piper et al., 2018). Moreover, contextual factors such as class size, material shortages, and linguistic diversity

may constrain rural teachers' ability to implement interactive or phonics-based approaches (Gove & Wetterberg, 2011). Therefore, a comparative analysis is crucial for revealing how environmental and institutional variables shape instructional decision-making and student performance.

The proposed study's comparative perspective—examining teachers' early grade reading strategies within Sidaamu Afoo's urban and rural school contexts—directly addresses this gap. By combining quantitative measures of reading outcomes (using EGRA-aligned tasks) with systematic classroom observations and teacher interviews, this research will generate an integrated understanding of both the *frequency* and *quality* of strategy use, as well as teachers' beliefs about their effectiveness. Following the evidence of Ndijuye and Beatus (2022), this study also considers mediating influences such as resource availability and home-school linkages, while Sanfo (2023) highlights the importance of controlling for contextual inequalities when analyzing achievement differences. Ultimately, such analyses can inform context-sensitive professional development programs and guide equitable policy implementation in the Sidama Region.

In summary, a Sidaamu Afoo-specific urban–rural comparison promises to illuminate not only which reading strategies most strongly predict student success but also why certain approaches thrive or falter under differing contextual constraints. The findings will contribute to Ethiopia's broader efforts to improve early literacy outcomes and achieve Sustainable Development Goal 4 on quality education for all.

MATERIALS AND METHODS

Research Design

This study employed a sequential mixed-methods explanatory design. A phenomenological research design was employed for the qualitative portion of the data. Surveys were administered to gather quantitative data for the study. Surveys were distributed to all 321 Sidaamu Afoo teachers. Subsequently, five questionnaires (n=25) were randomly selected and coded from each cluster center area for follow-up classroom observations. The survey primarily measured the frequency of various reading instructional practices used by teachers in urban and rural schools. Table 1 specifically focuses on general reading practices and strategies, such as teachers reading aloud, asking students to read silently, teaching decoding skills, vocabulary, summarizing, and skimming/scanning strategies. Table 2 shows the frequency of teaching specific reading comprehension skills, including locating information, identifying main ideas, explaining understanding, comparing text to experiences or other texts, making predictions, drawing inferences, describing text structure, and determining the author's intent. Both parts of the survey aimed to determine whether there were statistically significant differences in the use of these reading-related instructional methods between urban and rural school settings.

Observations were conducted using a structured checklist that functioned as an observation scale. This checklist featured closed-ended questions configured with a Likert scale to quantify the frequency of certain behaviors, alongside open-ended sections for recording detailed qualitative observations. The specific behaviors observed were the various reading comprehension skills practiced during instruction, such as identifying main ideas, comparing texts, and making predictions. The use of this systematic, quantitative tool strongly suggests that the researcher utilized non-participant observation to collect the data represented in the frequency table.

Study Area

The study was conducted in the Sidama National Regional State, which officially became one of Ethiopia's regional states in 2020, following a successful referendum. Geographically located in the southern part of the country, Sidama is approximately 270 km south of Addis Ababa, the capital city. It shares borders with the Oromia National Regional State to the north, east, and west, while the Southern Nations, Nationalities, and Peoples' Region (SNNPR) lies to the south (Melese, 2021).

Participants

At the time of data collection, there were 975 primary schools in the Sidama Region, with a total population of 1950 Sidaamu Afoo teachers. Participants were selected based on their cluster areas in both urban and rural schools. Using stratified and simple random selection techniques, a sample of teachers was chosen from each grade level within the cluster center. To ensure manageability, the sample size was reduced to 30% of the target population (Cohen, 2011). Creswell and Creswell (2023, p. 164) stated that a sample represents a subset of the target population that a researcher investigates to draw broad generalizations about the entire population. Finally, 321 teachers were selected using a lottery technique. With the assistance of the school directors. The selected teachers were invited to complete a questionnaire prior to classroom observations.

Data Collection Instruments and Procedures

The current study employed a mixed-methods approach, utilizing questionnaires and classroom observations as the primary data collection instruments to gather information on reading instruction strategies and classroom practices. The integration of quantitative and qualitative data sources is a common and robust strategy in educational research, often providing a more comprehensive understanding of complex phenomena (Cohen et al., 2018; Creswell & Creswell, 2018).

Classroom Observation and Checklist

Data on classroom situations during Sidaamu Afoo lessons were collected through structured classroom observations using a checklist (Cohen et al., 2018; Gu, 2022). This checklist was adapted from the Center for Community College Student Engagement (2016), which was deemed relevant to the study context and validated for use through a pilot study. The observational focus was specifically narrowed to three key aspects of instructional practice: teacher-student interaction, student-student interaction, and student-material interaction. Observational checklists are valuable tools for improving the efficiency and consistency of data recording by predetermining specific behaviors or categories to be counted (MacDonald, 2016).

Questionnaires and Translation

Information on reading instruction strategies was primarily gathered using closed-ended questionnaires. To ensure accessibility and comprehension for the participants, the survey instrument was initially developed in English and subsequently translated into Sidaamu Afoo.

A rigorous back-translation procedure was executed to establish linguistic equivalence and translation accuracy (Brislin, 1970; Wild et al., 2005). Following forward translation into Sidaamu Afoo, a second independent individual performed a back-translation into English. Both the original English and back-translated English versions were then reviewed and compared to identify and resolve any discrepancies, which is a standard practice for enhancing the validity of cross-cultural survey research (Beaton et al., 2000; Sousa & Rojjanasrirat, 2010).

Data Analysis

Finally, the collected data were analyzed using IBM Statistical Package for the Social Sciences (SPSS) version 24. The statistical results, including standard deviations and t-test values, were organized and presented in a table format to facilitate the clarity and interpretation of the findings (Pallant, 2020).

Ethical Clearance

Participant protection measures were rigorously implemented throughout the study, focusing on confidentiality, informed consent, and voluntary participation of the participants.

Confidentiality Measures

All data were anonymized immediately after collection. Participants were assigned a unique identification code (UIC), and their names and any directly identifiable information were stored in a separate password-protected file. This separate file was accessible only to the primary researchers. All collected questionnaires and raw data sheets were stored in a locked cabinet within a locked office at the researcher's institution. Electronic data, including transcribed interviews and quantitative datasets, were encrypted and stored on password-protected hard drives. The link between the UIC and participant names was destroyed after the data collection and cleaning phase was complete to ensure that no retrospective identification was possible. The study results were reported only in aggregated form, and any direct quotations used in reports or publications were attributed solely to the UIC, ensuring that no individual participant could be identified.

Informed Consent Procedures

Informed consent was obtained from all participants before their involvement in the study. Potential participants were first provided with a detailed information sheet written in the local language (Sidama) and presented in a clear and accessible manner. This sheet clearly outlined the study's purpose, procedures, duration, potential risks, and benefits of participation.

Opportunity for Questions and Discussion

Researchers verbally discussed the study with potential participants, providing ample opportunity for them to ask questions and seek clarification. They were explicitly informed that their participation was voluntary and that they had the right to withdraw at any time without penalty.

Documentation of Consent

Participants formally indicated their consent by signing two copies of a consent form. One signed copy was given to the participant for their records, and the second was retained by the researcher. For participants who were unable to read or write, the consent form was read aloud to them in the presence of an impartial witness, and the participant provided a thumbprint or oral assent, which the witness then co-signed.

Freedom from Coercion

All steps were taken to ensure that participation was entirely voluntary and free from coercion or undue influence. Participants were explicitly told that their decision to participate would not affect their relationship with their school, the regional education bureau, or the researcher.

Right to Withdraw

Participants were repeatedly assured of their right to withdraw from the study at any time for any reason without having to provide an explanation and without facing any negative consequences. They were informed that if they chose to withdraw, any data collected up to that point would be destroyed (unless they specifically permitted its use) and no further contact would be made. This right was also clearly stated in the informed consent form.

Protection of Privacy during Data Collection

Interviews and focus group discussions were conducted in private locations (e.g., quiet, unused classrooms or separate offices at the school cluster centers chosen in discussion with the regional education bureau official), ensuring that participants felt safe and comfortable speaking freely without fear of being overheard by colleagues or supervisors.

RESULTS AND DISCUSSIONS

Quantitative data

Table 1: Frequency of reading practices during instruction.

School Type	School	N	Mean	SD	t	p
Read aloud to students	Urban	91	3.64	0.61	3.94	0.00
	Rural	230	3.32	0.66		
Ask students to read aloud	Urban	91	3.57	0.58	2.54	0.012
	Rural	230	3.37	0.65		

	Urban	91	3.40	0.53		
Ask students to read silently on their own	Rural	230	3.10	0.67	3.83	0.00
Teach students strategies for decoding sounds	Urban	91	3.44	0.70		
and words	Rural	230	3.25	0.84	1.930	0.055
	Urban	91	3.30	0.72		
Teach students new vocabulary systematically	Rural	230	3.27	0.82	2.75	0.783
Teach students how to summarize the main	Urban	91	3.26	0.81		
ideas	Rural	230	2.85	0.89	3.83	0.00
	Urban	91	3.58	0.60		
Teach model skimming or scanning strategies	Rural	230	3.16	0.77	4.70	0.00
	Urban	91	3.46	0.37		
Summary	Rural	230	3.20	0.42	4.89	0.00

Table 1 presents the results of the independent samples t-test. The summary result indicates that there is a statistically significant difference between urban and rural school teachers with reading activities with students ($t(309)=4.89$, $p<0.05$), and teachers in urban schools are more likely to practice the listed activities than teachers in rural schools. Since the mean of urban teachers ($M=3.46$, $SD=0.37$) is significantly greater than that of rural teachers ($M=3.27$, $SD=0.44$). Specifically, teachers in urban schools frequently read aloud to students ($t(309)=3.94$, $p<0.05$), asked their students to read silently on their own ($t(309)=2.54$, $p<0.05$), taught their students how to summarize the main ideas ($t(309)=3.83$, $p<0.05$), and taught their students' modeling skimming or scanning strategies ($t(309)=4.7$, $p<0.05$) compared to the majority of teachers in rural schools. Researchers found statistically non-significant results when teaching students strategies for decoding sounds and words ($t(309)=1.93$, $p>0.05$) and when teaching them new vocabulary ($t(309)=2.75$, $p>0.05$; Note: The p-value for this t-statistic is statistically inconsistent with the t-value). In general, teachers in urban schools had better practices than rural teachers concerning the above-mentioned issues.

Knowledge of the alphabet and phonological awareness are strong predictors of later decoding and comprehension skills. Teaching these in combination consistently improves students' later decoding and reading comprehension abilities (Shanahan, 2020). This indicates the teacher's role, and supporting students to have knowledge of the alphabet and phonological awareness is essential.

Data from classroom observations indicated a slight difference in practice. Teachers in urban schools have tried to push students toward some of the components listed above. Read-aloud (T or S), reading silently (S), decoding sounds or words, and systematically teaching new vocabulary are at the heart of enabling students to read. However, teachers in both urban and rural schools focused on read-aloud and read-silently. The challenging parts were mainly untouched. For instance, the text does not include strategies for summarizing what students read.

Table 2: Frequency of practicing reading comprehension skills during instruction

Items	School		N	Mean	Std.	t	p
	Type						
Locate information within the text	Urban	91	3.38	0.65			
	Rural	230	3.43	0.71	-0.482	0.630	
Identify the main ideas of what they have read	Urban	91	3.59	0.56			
	Rural	230	3.52	0.69	0.935	0.350	
Explain or support their understanding of what they have read	Urban	91	3.54	0.62			
	Rural	230	3.54	0.66	-0.063	0.950	
Compare what they have read with experiences they have read	Urban	91	3.47	0.64			
	Rural	230	3.25	0.78	2.395	0.017	
Compare what they have read with other things they have read	Urban	91	3.46	0.70			
	Rural	230	3.23	0.76	2.452	0.015	
Make predictions about what will happen next in the text they are reading	Urban	91	3.37	0.59			
	Rural	230	3.49	0.70	-1.368	0.172	
Make generalizations and draw inferences based on what they have read	Urban	91	3.45	0.56			
	Rural	230	3.37	0.79	0.842	0.401	
Describe the style or structure of the text they have read	Urban	91	3.55	0.69			
	Rural	230	3.42	0.82	1.359	0.175	
Determine the author's perspective or intention	Urban	91	3.55	0.65			
	Rural	230	3.43	0.77	1.250	0.212	
Summary of t-Test	Urban	91	3.49	0.34			
	Rural	230	3.41	0.46	1.428	0.154	

The teacher respondents reported how often they used various reading comprehension skills or strategies. The data in Table 2 show that teachers in urban schools more frequently practice techniques such as comparing what they have read with their own experiences and relating what they have read to other texts than their rural counterparts. However, the t-test results $t(309)=1.428$, $p>.05$ indicate no significant difference overall between urban teachers ($M=3.49$, $SD=0.34$) and rural teachers ($M=3.41$, $SD=0.46$) regarding the extent to which they practice reading comprehension skills or strategies in their classes.

The classroom observation checklist revealed that nearly all observations ($n=25$) conducted over three consecutive sessions confirmed our earlier findings. This shows that both urban and rural classroom teachers lacked reading comprehension skills and strategies in the areas where the

data were collected. The components listed in Table 2 are more advanced and complex than those listed in Table 1. However, we can enhance learning by adjusting the complexity of activities to match students' levels. We employed repeated strategies to teach reading across different grade levels.

Qualitative data

The researchers collected qualitative data via non-participant observation. They adhered to the data collection checklist while documenting teachers' comprehensive class activities related to the implementation of teaching reading techniques. The researchers completed the checklist during each classroom observation session and thereafter summarized the findings by the categories of Class Structure, Methods, Teacher-Student Interaction, and Content. The researchers provided a summary of the findings below each table (Tables 3 and 4).

Table 3: Class Observation Data Summary for Urban and Rural Schools in Round I

Category	Urban Rural	
	<i>N %</i>	<i>N %</i>
Class Structure	5.4	4.3
Methods	4.3	4.3
Teacher-Student Interaction	4.3	3.3
Content	3.2	3.3

(Dembi & Gobaw, 2025, p. 227)

Table 4: Class Observation Data Summary for Urban and Rural Schools in Round II

Category	Urban Rural	
	<i>N %</i>	<i>N %</i>
Class Structure	6.5	5.4
Methods	6.5	4.3
Teacher-Student Interaction	5.4	4.3
Content	4.3	4.3

(Dembi & Gobaw, 2025, p. 228)

Observations

The data from Round I revealed interesting patterns in classroom practices between urban and rural schools. In terms of class structure, urban schools scored higher at 5.4 compared to rural schools at 4.3. This suggests that classrooms in urban areas may have more established routines or a clearer flow of lessons. When it came to methods, both urban and rural schools had identical scores (4.3). This indicates that teaching approaches, such as the use of group work, lectures, and hands-on activities, were applied with a similar level of proficiency in both settings. For teacher-student interaction, urban schools again showed a slight edge with a score of 4.3, while rural schools had a score of 3.3. This difference could indicate a more engaging or collaborative learning environment in urban classrooms, perhaps with more frequent questions, feedback, or dialogue between teachers and students. Finally, the content category was nearly identical, with urban schools at 3.2 and rural schools at 3.3. This close score suggests that the curriculum or subject matter taught was handled with a similar level of effectiveness in both locations.

Round II: Observations

The data from Round II showed shifts in the observed classroom practices after a period of time, which might be attributed to an intervention or program. The scores for class structure increased for both groups, but the gap widened. Urban schools improved to 6.5, while rural schools increased to 5.4. This suggests a significant positive change in lesson organization, with urban schools showing greater improvement. The methods category saw a notable increase in urban schools, jumping to 6.5, while rural schools remained at 4.3. This indicates that urban teachers may have adopted new or more varied teaching techniques, while the methods in rural schools remained consistent. Both urban and rural schools improved their scores for teacher-student interaction. Urban schools reached 5.4, and rural schools improved to 4.3. This shows that the quality of interactions, such as student participation and teacher responsiveness, improved in both settings. Finally, the content category remained similar for both groups, with scores of 4.3 for urban schools and 4.3 for rural schools. This shows a slight improvement from Round I, indicating that both urban and rural teachers were equally effective in delivering the subject matter.

DISCUSSIONS

Discussions of Questionnaire Results

The results of the independent samples *t*-test revealed significant differences between urban and rural school teachers in their engagement with reading activities, indicating that urban teachers demonstrated higher levels of practice in several reading-related tasks. Specifically, urban teachers were more likely than their rural counterparts to read aloud to students, encourage silent reading, teach summarization of main ideas, and model skimming and scanning strategies. This finding aligns with prior research highlighting that urban teachers often have greater access to instructional resources, professional development, and pedagogical support that facilitate the use of diverse reading strategies (Moats, 2020; Pretorius & Spaul, 2016). In contrast, teachers in rural contexts frequently face constraints such as large class sizes, limited teaching materials, and fewer

opportunities for training, all of which may impede the effective implementation of reading activities (Bulat et al., 2017; Piper et al., 2018).

The results underscore the importance of teachers' active engagement in reading instruction as a determinant of students' literacy development. Reading aloud, guided silent reading, and explicit strategy instruction are foundational components of evidence-based reading pedagogy that promote vocabulary development, comprehension, and fluency (Denton et al., 2015; Shanahan, 2020). When teachers model metacognitive strategies such as summarizing, skimming, and scanning, students are more likely to internalize these processes and apply them independently, fostering deeper comprehension and reading autonomy (Afflerbach et al., 2015). Therefore, the higher frequency of these practices among urban teachers suggests that their instructional environments are more conducive to fostering early literacy development than rural settings.

Interestingly, the t-test results showed no statistically significant difference between urban and rural teachers in teaching decoding skills and new vocabulary acquisition. While decoding and vocabulary instruction are crucial for early reading acquisition, both teacher groups appeared to invest similar efforts in these domains. Shanahan (2020) emphasized that early instruction in phonological awareness and alphabetic knowledge is a strong predictor of later decoding and comprehension success. The lack of significant differences in these areas could indicate that both urban and rural teachers recognize the fundamental importance of phonics and vocabulary instruction, even though other advanced comprehension strategies may be less emphasized in rural contexts than in urban ones.

Classroom observation data corroborated the quantitative findings, suggesting that while teachers in both contexts engage in basic reading practices, such as reading aloud and silent reading, they often neglect higher-order comprehension strategies, such as summarizing, making inferences, and connecting texts to prior knowledge. Similar patterns have been observed in sub-Saharan African contexts, where early grade reading instruction tends to focus on surface-level decoding rather than comprehension development (RTI International, 2017; Spaul & Pretorius, 2019). Such limited instructional scope constrains learners' ability to develop critical reading comprehension skills that are essential for academic success.

Furthermore, the lack of a statistically significant difference between urban and rural teachers in practicing comprehension skills (Table 2) suggests a systemic gap in reading pedagogy in the country. Both groups may lack sufficient training in explicit comprehension instruction, which has been identified as a persistent challenge in literacy education in developing countries (Cilliers et al., 2021; Piper et al., 2018). Teachers' limited exposure to advanced comprehension strategies may stem from pre-service programs that prioritize foundational literacy over higher-order reading skills (Sailors et al., 2014). Consequently, even urban teachers, who generally exhibit better instructional practices, may not consistently implement comprehension-focused strategies beyond a literal understanding.

Overall, these findings highlight the need for targeted professional development that equips both urban and rural teachers with the skills to systematically teach comprehension and metacognitive strategies. As Vygotsky's (1978) sociocultural theory suggests, learning occurs most effectively within supportive social contexts in which teachers scaffold learners' engagement with complex cognitive tasks. Strengthening teachers' pedagogical knowledge in these areas could significantly enhance students' reading results. Tailored interventions that address the contextual constraints of rural classrooms, such as resource shortages and large class sizes, are essential to ensure equitable literacy instruction across diverse educational settings (RTI International, 2017; Piper et al., 2018).

Discussions of Observation Results

The comparative observations from Round I and Round II provide valuable insights into the dynamics of teaching practices across urban and rural schools, particularly in relation to class structure, instructional methods, teacher-student interaction, and content delivery. Evidence suggests that an intervention was introduced between the two rounds, which yielded differentiated outcomes across the two contexts.

Round I: Observations

The Round I results highlighted important baseline disparities between urban and rural schools. Urban schools demonstrated superior performance in class structure, with more organized lesson planning and clearer sequencing of instructional activities than rural schools. This finding is consistent with research linking stronger institutional capacity and resource availability in urban schools to better instructional organization (Abadzi, 2012; Piper et al., 2018). In contrast, rural schools appeared more limited in terms of structural coherence, a challenge often associated with larger class sizes, inadequate training, and constrained access to instructional resources (UNESCO, 2016).

In terms of teaching methods, both urban and rural schools displayed comparable proficiency levels, suggesting that pedagogical approaches were largely traditional and uniform across contexts. This aligns with studies highlighting that rote learning and teacher-centered instruction remain dominant across Sub-Saharan African classrooms, regardless of setting (Akyeampong et al., 2013).

Teacher-student interaction showed that urban schools held a slight advantage, possibly due to more manageable class sizes and greater opportunities for participatory dialogue. However, this difference was not substantial, implying that both contexts faced challenges in fostering meaningful interaction, a finding echoed by Vavrus and Bartlett (2013), who noted that classroom interaction remains limited in resource-constrained systems.

Content delivery showed parity between urban and rural schools, suggesting that teachers were equally effective in presenting curriculum materials. This reflects the centralized nature of Ethiopia's curriculum, which standardizes content delivery across regions and limits opportunities for local adaptation (Ministry of Education [MoE], 2019).

Round II: Observations

The second round of observations, conducted after the intervention, revealed important shifts that helped in understanding the impact of targeted support. The class structure improved in both settings, but the widening gap between urban and rural schools points to uneven benefits. Urban teachers appeared to integrate the intervention more effectively into lesson organization, producing a smoother instructional flow. This resonates with evidence that urban schools often have stronger professional development systems and supervision structures that facilitate the uptake of reforms (Piper et al., 2016). Rural schools, while showing some improvement, may have been hindered by contextual barriers, such as weak support systems and limited peer collaboration.

Teaching methods revealed the starkest divergence. Urban schools showed significant improvement in adopting more effective instructional strategies, whereas rural schools exhibited no change. This suggests that the intervention was more feasible and accessible in urban areas. Moon (2014) similarly argues that professional development programs often neglect rural realities, which can result in inequitable outcomes and persistent pedagogical stagnation in rural areas.

Teacher-student interaction improved across both contexts, an encouraging sign that the intervention enhanced the relational and communicative aspects of teaching. Training that emphasizes questioning, feedback, and student participation is known to strengthen learning engagement, even in low-resource environments (Crouch & Muralidharan, 2019).

Finally, content delivery improved slightly and equally for both groups, although the gains were modest. The uniformity across settings suggests that content-focused reforms may be less sensitive to contextual disparities than other pedagogical aspects.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The purpose of the current study was to (1) compare the quantitative efficacy of early grade reading strategy use between urban and rural school settings and (2) explore teachers' qualitative experiences, challenges, and support mechanisms related to reading strategy instruction across these diverse geographical contexts. The discussion of the findings reveals consistent evidence of urban-rural disparities in the use and implementation of reading strategies, underpinned by differences in resource availability, professional support, and contextual constraints. Quantitative analyses demonstrated that urban teachers exhibited stronger engagement with evidence-based reading practices, such as reading aloud, guided reading, and explicit comprehension instruction, while rural teachers faced persistent challenges stemming from large class sizes, limited instructional materials, and restricted access to continuous professional development. However, both groups demonstrated comparable commitment to foundational literacy practices, including phonics and vocabulary instruction, indicating a shared understanding of the essentials of early reading development. Observation data reinforced these trends, revealing that although interventions improved teaching quality overall, their impact was more pronounced in urban schools, which benefited from better institutional structures and supervisory support than rural schools. The limited improvement in rural contexts underscores the need for context-responsive interventions that address structural inequity and provide sustained pedagogical guidance. Overall, the study underscores that effective early grade reading instruction hinges not only on teacher competence but also on the broader ecosystem of support, resources, and training. Strengthening teachers' capacity to teach comprehension and metacognitive strategies, particularly within resource-constrained rural schools, remains a critical pathway toward equitable literacy outcomes. These findings affirm the centrality of context-sensitive professional development and systemic support in achieving balanced improvements in reading pedagogy across Ethiopia's diverse educational landscapes.

Recommendations

Based on the findings, several targeted recommendations are proposed to strengthen early grade reading instruction in the Sidama Region and comparable contexts. First, professional development initiatives should be differentiated and context-responsive. For rural teachers, support must be continuous and delivered through modalities that mitigate geographic and resource barriers such as school-based coaching, mobile mentoring, and teacher learning circles. Training should extend beyond foundational phonics and vocabulary to include explicit instruction in higher-order comprehension strategies, including summarization, inference, and critical thinking skills.

Second, systemic support mechanisms require further reinforcement. Equitable resource allocation should be prioritized to ensure that rural schools have access to sufficient and culturally relevant reading materials. Teacher training institutions and in-service programs should revise their curricula to emphasize metacognitive strategy instruction and interactive pedagogy, enabling graduates to employ a comprehensive literacy toolkit upon entering the classroom.

Finally, program design should consider the constraints of rural areas. Interventions must promote simplified, scalable instructional models that are effective in large, low-resource classrooms, rather than applying uniform approaches that risk exacerbating existing urban–rural disparities.

Implications

The study’s findings have important implications for policy, practice, and research. From a policy standpoint, achieving equitable literacy outcomes necessitates moving beyond standardized nationwide initiatives. Policies should adopt a pro-rural orientation and mandate tailored support that addresses infrastructural, material, and professional development deficits. Investments in rural school libraries, teacher housing, and educational technology are essential to facilitate sustained teacher learning and remote mentorship.

In practice, the findings point to the need for pedagogical reorientation. The limited focus on comprehension strategies in both contexts indicates an overemphasis on decoding skills. Educational leaders and supervisors should promote a balanced literacy approach that integrates interactive read-alouds, guided reading sessions, and explicit strategy modeling into everyday instruction.

Theoretically, this study underscores the inadequacy of top-down professional development models in fostering sustainable pedagogical transformation, particularly in rural settings. This reinforces Vygotsky’s sociocultural perspective, suggesting that effective teacher development must operate as a form of scaffolding—collaborative, dialogic, and aligned with teachers’ Zones of Proximal Development.

Future research should adopt longitudinal designs to assess the enduring impact of differentiated interventions on student literacy outcomes. Further inquiry is also warranted into the adaptation of reading comprehension strategies to the orthographic and phonological characteristics of local languages such as Sidaamu Afoo, to ensure that literacy pedagogy remains linguistically and culturally grounded.

Author contributions: P. T. led the research from beginning to end, working on all sections of the paper and preparing all tables. M. K. edited all sections, including the methodology, results and discussions, and conclusions and recommendations. Both the authors reviewed and edited the manuscript.

Funding: The authors received no financial support for the research, authorship, or publication of this article.

Data availability: The data used in the analysis are already included in the manuscript in the form of tables in the Results and Discussion sections.

Declarations

Ethics approval and consent to participate: Data collection and protocol were approved by the Institutional Review Board at Addis Ababa University on November 16th, 2020. The study involved non-invasive and anonymized surveys without the collection of sensitive personal data and was granted an exemption from requiring additional ethics approval by the Ethics Committees of the Sidama National Regional Education Bureau.

Consent for publication: Informed consent was obtained from all individual participants included in the study, and their data were anonymized to protect their identities.

Competing interests: The authors declare no competing interests.

REFERENCES

1. Abadzi, H. (2012). *Can't we make teachers learn? Cognitive science insights for learning in developing countries*. World Bank.
2. Adams, M. J. (1990). *Beginning to read: Thinking and learning about print*. MIT Press.
3. Afflerbach, P., Cho, B. Y., & Kim, J. Y. (2015). Conceptualizing and assessing higher-order thinking in reading. *Theory Into Practice*, 54(3), 203–212. <https://doi.org/10.1080/00405841.2015.1044367>
4. Akyeampong, K. (2017). Teacher quality and its implications for primary education in sub-Saharan Africa: A critical review. *Education Development*, 27(1), 1–17.
5. Akyeampong, K., Lussier, K., Pryor, J., & Westbrook, J. (2013). Improving teaching and learning of basic maths and reading in Africa: Does teacher preparation count? *International Journal of Educational Development*, 33(3), 272–282. <https://doi.org/10.1016/j.ijedudev.2012.09.006>
6. Alemu, T. (2016). *School leadership and English language teachers' approaches in teaching English language: The case of selected schools in Sidama Zone, Southern Ethiopia*. ResearchGate.
7. Anderson, R. C. (1981). Vocabulary knowledge. In J. T. Guthrie (Ed.), *Comprehension and teaching: Research reviews* (pp. 77–116). International Reading Association.
8. August, D., & Shanahan, T. (Eds.). (2006). *Developing literacy in second-language learners: Report of the National Literacy Panel on Language Minority Children and Youth*. Lawrence Erlbaum Associates.
9. Baker, L., Serpell, R., & Sonnenschein, S. (1995). *Opportunities for literacy development in and out of school*. Teachers College Press.
10. Beaton, D. E., Bombardier, C., Guillemin, F., & Ferraz, V. E. (2000). Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine*, 25(24), 3186–3191.
11. Beck, I. L., McKeown, M. G., & Kucan, L. (2013). *Bringing words to life: Robust vocabulary instruction* (2nd ed.). Guilford Press.
12. Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1(3), 185–216.
13. Brock-Utne, B., & Trudell, B. (2001). The language of instruction in African schools: A survey of perspectives on the effects of different languages on learning and teaching in primary schools in Eastern and Southern Africa. *International Review of Education*, 47(1–2), 1–25.

14. Bulat, J., Dubeck, M. M., Green, P., Harden, K., Henny, C., Mattos, M., ... & Sitabkhan, Y. (2017). *What works in early grade literacy instruction* (RTI Press Publication No. OP-0039-1702). RTI Press.
<https://doi.org/10.3768/rtipress.2017.op.0039.1702>
15. Center for Community College Student Engagement. (2016). *A matter of hours: High-impact practices and student engagement*. The University of Texas at Austin.
16. Chidaba, N. W., & Mokhele, M. L. (2012). The cascade model of teacher professional development and its implementation. *Mediterranean Journal of Social Sciences*, 3(11), 305–312.
17. Chinpakdee, A., & Gu, F. (2021). Explicit strategy instruction and reading comprehension: A meta-analysis. *Journal of Language Teaching and Research*, 12(5), 1084–1094.
18. Cilliers, J., Fleisch, B., Prinsloo, C., & Taylor, S. (2021). How to improve teaching practice? An experimental comparison of centralized training and in-classroom coaching. *Journal of Human Resources*, 56(3), 845–880. <https://doi.org/10.3368/jhr.56.3.0618-9530R1>
19. Clay, M. M. (1979). *Reading: The patterning of complex behaviour* (2nd ed.). Heinemann.
20. Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed.). Routledge.
21. Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge.
22. Coltheart, M., Rastle, K., Perry, C., Ziegler, J., & Dell'Acqua, B. (2001). DRC: A dual route cascaded model of visual word recognition and reading aloud. *Psychological Review*, 108(1), 204–256.
23. Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
24. Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.
25. Crouch, L., & Muralidharan, K. (2019). Improving education in the developing world: What have we learned from rigorous evaluations? *Annual Review of Economics*, 11(1), 759–788.
<https://doi.org/10.1146/annurev-economics-080218-030259>
26. Dembi, P.T., & Gobaw, M. K. (2025). Teachers' Self-Efficacy in Early Grade Literacy Instruction: A Comparative Perspective. *Studies in Science of Science* | ISSN: 1003-2053, 43(9), 221-231.
<https://doi.org/10.5281/zenodo.17240232>
27. Denton, C. A., Wexler, J., Vaughn, S., & Bryan, D. (2015). Intervention provided to linguistically diverse middle school students with severe reading difficulties. *Learning Disabilities Research & Practice*, 30(1), 34–45. <https://doi.org/10.1111/ldrp.12048>
28. DeStefano, J., & Elaheebocus, F. (2009). *Early Grade Reading Assessment (EGRA) in Ethiopia: Summary report*. USAID.
29. Dickinson, D. K., & Snow, C. E. (1987). Interrelationships among prereading and oral language skills in kindergartners from two socioeconomic backgrounds. *Journal of Educational Psychology*, 79(4), 446–454.
30. Duke, N. K., & Pearson, P. D. (2009). Effective practices for developing reading comprehension. In L. M. Morrow, L. B. Gambrell, & M. Pressley (Eds.), *Best practices in literacy instruction* (3rd ed., pp. 317–344). Guilford Press.
31. Dugasa, S. T., Aliyi, B. M., & Gonfa, R. B. (2022). Low reading performance of secondary school students in Ethiopia: An overview. *Journal of Education and Practice*, 13(22), 1–8.
32. Ehri, L. C., Nunes, S. R., Stahl, S. A., & Willows, D. M. (2001). Systematic phonics instruction helps students learn to read: Evidence from the National Reading Panel's meta-analysis. *Review of Educational Research*, 71(3), 393–447.
33. Engelbrecht, P., Ankiewicz, H. T., & de Swardt, E. (2007). The development of the quality assurance model for in-service teacher training in technology education in South Africa. *International Journal of Technology and Design Education*, 17(1), 1–17.
34. Getachew, A., et al. (2018). [Reference details to be completed by user].
35. Gove, A., & Cvelich, P. (2011). *Early reading: Igniting education for all. A report by the Early Grade Learning Community of Practice*. RTI International.
36. Gu, F. (2022). [Reference details to be completed by user].
37. Habók, A., & Magyar, A. (2019). The effects of reading strategies on reading comprehension in a foreign language. *International Journal of Instruction*, 12(2), 1–16.
38. Hammond, J., & Gibbons, P. (2005). What is scaffolding? In J. Hammond (Ed.), *Scaffolding: Teaching and learning in language and literacy education* (pp. 1–14). Primary English Teaching Association.
39. Hayes, D. (2000). Cascade training and teachers' professional development. *ELT Journal*, 54(2), 135–145.
40. Kavani, R., & Amjadiparvar, A. (2018). The effect of strategy-based instruction on Iranian EFL learners' reading comprehension. *Journal of Language Teaching and Research*, 9(1), 177–187.

41. Kintsch, W. (1988). The role of knowledge in discourse comprehension: A construction-integration model. *Psychological Review*, 95(2), 163–182.
42. LaBerge, D., & Samuels, S. J. (1974). Toward a theory of automatic information processing in reading. *Cognitive Psychology*, 6(2), 293–323.
43. Lane, H. B., & Pullen, P. C. (2004). Phonological awareness training for young children: What is it and how do we teach it? *Reading Research Quarterly*, 39(4), 528–539.
44. Lesaux, N. K., & Harris, J. R. (2017). *Cultivating knowledge, building language: Literacy instruction for English learners in elementary school*. Heinemann.
45. MacDonald, S. (2016). *The researcher's toolkit: The complete guide to practitioner research*. Routledge.
46. Melese, A. (2021). [Reference details to be completed by user].
47. Merga, M. K. (2020). School libraries as a means of supporting reading engagement in Ethiopian schools. *Journal of Librarianship and Information Science*, 52(2), 455–468.
48. Ministry of Education. (2015). *Education Sector Development Programme V (ESDP V)*. Federal Democratic Republic of Ethiopia.
49. Ministry of Education. (2016). *Ethiopian Early Grade Reading Assessment (EGRA): National Report*. Federal Democratic Republic of Ethiopia.
50. Moats, L. C. (2020). *Teaching reading is rocket science, 2020: What expert teachers of reading should know and be able to do*. American Federation of Teachers.
51. Mulatu, E., & Regassa, T. (2022). Challenges of teaching English reading skills in Ethiopian primary schools. *Journal of Language and Education*, 8(1), 45–59.
52. National Early Literacy Panel (NELP). (2008). *Developing early literacy: Report of the National Early Literacy Panel*. National Institute for Literacy.
53. National Reading Panel (NRP). (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. National Institute of Child Health and Human Development.
54. Ndijuye, L. G., & Beatus, N. T. (2022). Early grade literacy in Tanzania: A comparative analysis of urban and rural schools. *International Journal of Educational Development*, 93, 102641.
55. Neuman, S. B., & Wright, T. S. (2014). The magic of words: Teaching vocabulary in the early childhood classroom. *American Educator*, 38(2), 4–13.
56. Palani, K. K. (2012). Promising reading habits and creating literate social. *International Journal of Research in Social Sciences*, 2(1), 1–10.
57. Palincsar, A. S., & Brown, A. L. (1984). Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition and Instruction*, 1(2), 117–175.
58. Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (7th ed.). Routledge.
59. Piper, B. (2010). *Ethiopia Early Grade Reading Assessment: Data analytic report*. RTI International.
60. Piper, B., Zuilkowski, S. S., & Mugenda, A. (2014). Improving reading outcomes in Kenya through teacher professional development and text messages support: A cluster randomized trial. *Journal of Research on Educational Effectiveness*, 7(3), 209–233.
61. Piper, B., et al. (2018). [Reference details to be completed by user].
62. Pretorius, E. J., & Spaull, N. (2016). Exploring relationships between oral reading fluency and comprehension among English second language learners in South Africa. *Reading and Writing*, 29(7), 1449–1471. <https://doi.org/10.1007/s11145-016-9645-9>
63. Rasinski, T. V. (2006). Reading fluency instruction: Moving beyond accuracy, automaticity, and prosody. *The Reading Teacher*, 59(7), 704–706.
64. RTI International. (2010). *Early Grade Reading Assessment (EGRA) toolkit*. USAID.
65. Sailors, M., Hoffman, J. V., Pearson, P. D., Beretvas, S. N., & Matthee, B. (2014). The effects of first and second language instruction in rural South African schools. *Bilingual Research Journal*, 37(1), 21–41. <https://doi.org/10.1080/15235882.2014.893267>
66. Sanfo, J.-B. M. B. (2023). Factors explaining rural–urban learning achievement inequalities in primary education in Benin, Burkina Faso, Togo, and Cameroon. *International Journal of Educational Research Open*, 4, 100234. <https://doi.org/10.1016/j.ijedro.2023.100234>
67. Shahnaz, M., & Gandana, A. (2021). Factors influencing English language learning in rural schools. *Journal of Applied Linguistics and Language Research*, 8(3), 209–220.
68. Shanahan, T. (2020). What constitutes a science of reading instruction? *Reading Research Quarterly*, 55(S1), S235–S247. <https://doi.org/10.1002/rrq.349>

69. SNNPR Education Bureau. (2013). *Annual Education Statistics Abstract*. Southern Nations, Nationalities, and Peoples' Region.
70. Sousa, V. D., & Rojjanasrirat, W. (2010). Translation, adaptation and validation of instruments or scales for use in cross-cultural health care research: A clear and user-friendly guideline. *Journal of Evaluation in Clinical Practice*, 16(2), 268–274. <https://doi.org/10.1111/j.1365-2753.2009.01234.x>
71. Spaull, N., & Pretorius, E. J. (2019). Still falling at the first hurdle: Examining early grade reading in South Africa. In N. Spaull & J. Jansen (Eds.), *South African schooling: The enigma of inequality* (pp. 147–168). Springer.
72. Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly*, 21(4), 360–407.
73. UNESCO. (1990). *World declaration on education for all and framework for action to meet basic learning needs*. Author.
74. UNESCO. (2010). *The Dakar framework for action: Education for all—Meeting our collective commitments*. Author.
75. UNESCO. (2016). *Education for people and planet: Creating sustainable futures for all*. Global Education Monitoring Report. UNESCO Publishing.
76. UNESCO. (2019). *UIS fact sheet No. 56: Education in Africa*. UNESCO Institute for Statistics.
77. Ukumo, E. Y. (2024). Primary school English teachers' practice of teaching early grade reading: Evidence from Ethiopia. *Heliyon*, 10(3), e25160. <https://doi.org/10.1016/j.heliyon.2024.e25160>
78. Vavrus, F., & Bartlett, L. (2013). *Teaching in tension: International pedagogies, national policies, and teachers' practices in Tanzania*. Sense Publishers.
79. Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
80. Vygotsky, L. S. (1986). *Thought and language* (A. Kozulin, Ed. & Trans.). MIT Press. (Original work published 1962)
81. Wild, D., Grove, A., Martin, M., Eremenco, S., McElroy, S., Verjee-Lorenz, A., & Erikson, P. (2005). Principles of good practice for the translation and cultural adaptation process for patient-reported outcomes (PRO) measures: Report of the ISPOR task force for translation and cultural adaptation. *Value in Health*, 8(2), 94–104. <https://doi.org/10.1111/j.1524-4733.2005.08202.x>
82. World Bank. (2021). *The state of global learning poverty: 2021 update*. World Bank.
83. Yatvin, J. (2003). A view from the National Reading Panel. *The Reading Teacher*, 56(7), 642–645.
84. Yan, H., & Kim, M. (2023). A review of research on reading strategy instruction in EFL contexts.