American Journal of Interdisciplinary Research and Innovation (AJIRI)

ISSN: 2833-2237 (ONLINE)

VOLUME 5 ISSUE 4 (2026)

PUBLISHED BY

E-PALLI PUBLISHERS, DELAWARE, USA

American Journal of Interdisciplinary Research and Innovation (AJIRI)

Volume 5 Issue 4, Year 2026
ISSN: 2833-2237 (Online)
DOI: https://doi.org/10.54536/ajiri.v5i4.8449
https://journals.e-palli.com/home/index.php/ajiri

Universal Design in Early Literacy: A Scoping Review of Decodable Texts, Accessibility, and Diverse Learning Needs in Tanzanian Primary Schools

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Article Information

Received: June 12, 2026

Accepted: August 29, 2026

Published: October 31, 2026

Keywords

Decodable Texts, Foundational Literacy, Inclusive Education, Phonics, Scoping Review, Primary Education, Tanzania, Universal Design Learning

ABSTRACT

Foundational literacy is central to participation and subsequent learning, yet the instructional routes through which beginning readers encounter print are not equally accessible to all learners. In Tanzania, renewed attention to systematic phonics and early-grade reading has increased the relevance of decodable texts: texts designed to give learners opportunities to apply previously taught grapheme–phoneme correspondences. Their instructional value, however, cannot be assessed only in terms of the linguistic structure of the text. Classroom activities, teacher directions, response requirements, assessment procedures, and available formats can either widen or restrict access. This scoping review maps literature and policy- and curriculum-related evidence concerning decodable or phonics-oriented early reading in Tanzanian primary education and examines the extent to which the evidence engages with accessibility, learner variability, and Universal Design for Learning (UDL). The review follows PRISMA-ScR and considers literature published between 2014 and 2026. The synthesis indicates a plausible pedagogical alignment between controlled text and the development of decoding, while also revealing a major gap in directly tested evidence on inclusive adaptations of decodable materials in Tanzania. Across the mapped literature, accessibility is more often treated as an implementation concern than as a design principle embedded in reading materials from the outset. The review therefore advances the concept of inclusive decodable-text pedagogy, in which systematic phonics is retained while unnecessary sensory, motor, speech, and communication barriers are reduced through multiple means of representation, action and expression, and engagement. Implications are developed for curriculum design, teacher education, classroom practice, formative assessment, and future research. The central conclusion is that decodability and accessibility should be treated as complementary properties: a text may be linguistically decodable yet still be instructionally inaccessible if participation depends on a single route that is unrelated to the intended literacy skill.

INTRODUCTION

Early literacy, access, and instructional design

Learning to read involves the gradual coordination of several capabilities, including knowledge of the relationships between spoken language and written symbols, accurate word recognition, language comprehension, vocabulary, and increasing automaticity. For beginning readers, instruction must therefore do more than expose children to print. It must create repeated and meaningful opportunities to practise the relationships that are being taught. Decodable texts have attracted renewed attention because they are structured around this instructional principle: the words and patterns presented to learners are intended to be substantially consistent with previously taught correspondences. In this sense, the instructional value of a decodable text lies not simply in its controlled vocabulary but in the deliberate relationship between teaching and practice.

In Tanzanian primary education, foundational learning remains closely connected to national aspirations for quality, equity, participation, and progression through schooling. Policy and curriculum developments have continued to emphasise early competence in reading, writing, and arithmetic. These developments create an important context for examining phonics-oriented materials and decodable readers. At the same time, primary classrooms are heterogeneous. Learners differ in their sensory access, communication, language experience, attention, motor control, pace of learning, prior opportunities to interact with print, and preferred or available ways of participating. An approach that is effective for many learners can still exclude others when the route through which the learning objective is delivered is unnecessarily narrow.

This distinction is particularly important for early reading. A lesson may have the legitimate cognitive objective of asking a learner to identify a grapheme, map it to a sound, blend a sequence of correspondences, recognise a word, or demonstrate understanding of a short passage. None of these objectives necessarily requires every learner to see the same size of print, hear information through the same channel, respond orally, write with a pencil, or complete a task at the same speed. When those features become compulsory despite not being intrinsic to the

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target skill, they can convert an instructional routine into an access barrier.

The problem

The central problem addressed in this review is therefore broader than the question of whether decodable texts work. The more consequential question is how the instructional benefits associated with systematic decoding practice can be made available to learners with diverse learning needs without changing the construct that the lesson is intended to teach or assess. Existing discussion of early literacy frequently separates evidence about effective reading instruction from discussion of inclusive pedagogy. This separation can produce a false choice: either fidelity to systematic instruction or flexibility in how learners participate. The present review proceeds from the position that the two can be combined when the instructional objective is distinguished from the particular mode through which the objective is accessed or demonstrated.

The available Tanzanian evidence is also fragmented across research studies, policy documents, curriculum materials, professional reports, and broader international literature that has implications for local practice. Direct empirical studies that simultaneously evaluate decodable texts and inclusive adaptations are especially limited. A scoping review is consequently appropriate because the purpose is to map the nature and boundaries of the evidence, clarify concepts, identify patterns, and establish priorities for future research rather than to calculate a pooled intervention effect.

Purpose and research questions

The purpose of this review is to map available evidence relevant to the use of decodable or phonics-oriented texts in Tanzanian primary education and to examine how accessibility and UDL-informed practices are addressed within that evidence. The review is guided by four questions:

- What evidence is available regarding the relationship between decodable or phonics-oriented materials and foundational reading outcomes in Tanzanian primary education?
- To what extent are decodable texts and associated instructional activities adapted or designed to accommodate diverse learning needs and abilities?
- How are the principles of Universal Design for Learning reflected in early-grade reading materials, teaching practices, and related policy or curriculum discussions?
- What implementation challenges, design opportunities, and research gaps shape the effective and inclusive use of decodable readers in resource-constrained primary classrooms?

Theoretical and Conceptual Framework

The Simple View of Reading

The Simple View of Reading provides one of the conceptual anchors for this review. In its classic formulation, reading comprehension is represented as the interaction of decoding and linguistic comprehension. The formulation is useful because it distinguishes the ability to identify written words from the broader language processes through which meaning is constructed. For beginning readers, weaknesses in either component can constrain comprehension. The framework therefore supports attention to decoding without reducing reading as a whole to decoding alone (Gough & Tunmer, 1986; Hoover & Gough, 1990).

Decodable texts are most directly connected to the decoding component. They provide practice in applying correspondences that have been explicitly taught, potentially helping learners move from effortful analysis towards more efficient recognition of familiar patterns. However, the Simple View does not prescribe a single sensory or motor pathway through which decoding must be taught. That distinction is critical for inclusive practice. A learner may need adapted print, tactile resources, visual supports, sign-supported communication, alternative response formats, additional time, or other reasonable forms of access while still engaging with the same underlying literacy construct.

Universal Design for Learning

UDL provides a complementary framework for analysing the accessibility of literacy instruction. The framework emphasises the proactive design of learning environments that anticipate learner variability rather than relying exclusively on retrospective accommodation after exclusion has occurred. Its three broad areas—multiple means of representation, multiple means of action and expression, and multiple means of engagement—offer a practical way of examining both reading materials and the activities that surround them (CAST, 2018).

Applied to early literacy, multiple means of representation can involve ensuring that relevant information is available through appropriate combinations of print, enlarged or high-contrast formats, tactile resources, carefully designed visual supports, audio, or other communication modes. Multiple means of action and expression directs attention to how learners are permitted to demonstrate understanding. Depending on the construct being assessed, speaking, pointing, selecting, arranging, signing, using supported communication, or writing may represent equally valid ways of demonstrating knowledge. Multiple means of engagement concerns the motivational and participatory conditions under which practice occurs, including cultural relevance, predictable routines, manageable challenge, feedback, peer interaction, and opportunities for successful participation.

Inclusive decodable-text pedagogy

Bringing the two frameworks together leads to the conceptual proposition advanced in this review: systematic phonics specifies an instructional relationship between what has been taught and what learners are asked to practise, while inclusive design concerns the conditions under which learners can access and demonstrate that

learning. Inclusive decodable-text pedagogy therefore combines controlled linguistic progression with flexible, construct-relevant routes to participation. The approach does not imply that every text must be presented in every possible format or that all response modes are interchangeable in every assessment. Rather, it requires educators to identify the intended construct first and then determine whether a particular delivery or response requirement is genuinely necessary.

MATERIALS AND METHODS

Review design and reporting

This study is a scoping review with a verified evidence-map reconstruction. The review was guided by the PRISMA extension for Scoping Reviews (PRISMA-ScR) as a reporting framework and followed the scoping-review purpose of mapping the extent, characteristics, and gaps of a heterogeneous evidence field rather than estimating a pooled intervention effect (Tricco *et al.*, 2018). The final submission version also includes a record-level evidence audit. This audit was undertaken because the earlier manuscript contained a numerical selection summary but did not transparently identify every record represented in the synthesis. The present version therefore distinguishes between the historical screening figures retained from the underlying review record and the 16 individually identifiable records used in the auditable evidence map.

Eligibility criteria

Eligibility was organised around setting, population, concept, and evidence type. Records were eligible when they addressed early-grade or primary reading; phonics, decoding, structured word-reading, or closely related foundational-literacy instruction; Tanzanian educational contexts or, for framework sources, concepts directly informing the analysis of decoding and accessibility; and, where relevant, inclusion, disability, accessibility, differentiated instruction, or Universal Design for Learning. Empirical studies, systematic or contextual reviews, theses, official policy and curriculum documents, and methodological or theoretical sources were considered. The core Tanzanian evidence was prioritised; non-Tanzanian theoretical and methodological records were included only where they provided the analytic framework required to interpret the Tanzanian evidence. Opinion pieces without an identifiable evidentiary basis were excluded.

Information sources and search approach

The search framework combined education and multidisciplinary databases, search engines, and institutional sources. The source types recorded in the underlying review included ERIC, African Journals Online, Scopus, Google Scholar, PubMed, and Tanzanian institutional repositories. In the final evidence audit, bibliographic details were checked against publisher, journal, ERIC, or official institutional records where available. Search concepts combined Tanzania or Tanzanian primary education with early-grade reading, phonics, decoding, decodable texts, foundational literacy, 3Rs/KKK, inclusion, disability, accessibility, differentiated instruction, and Universal Design for Learning. Reference lists and official curriculum and policy materials were used for citation chaining and contextual verification. Because terminology is inconsistent, the strategy deliberately treated 'decodable text' as a narrower concept nested within a broader search for phonics and structured decoding evidence.

Because the evidence base includes documents that are not always indexed consistently, the search strategy necessarily involved terminology variation. This is important in the Tanzanian context, where relevant work may be described through literacy, 3Rs/KKK, special needs education, inclusive education, curriculum implementation, or teacher practice rather than through the specific expression 'decodable text'. The review therefore maps conceptually related evidence while maintaining a distinction between direct evidence about decodable materials and indirect evidence that informs their inclusive implementation.

Selection, charting, and synthesis

The review proceeded through identification, screening, full-text assessment, record verification, and data charting. For the final submission version, each mapped record was checked for traceable bibliographic information and assigned an evidence role: direct Tanzanian phonics/reading evidence, Tanzanian contextual or curriculum evidence, policy evidence, or theoretical/methodological framework evidence. Data charting captured author and year, setting or jurisdiction, evidence type, population or document focus, instructional or conceptual focus, principal contribution to the review, and directness of relevance to the review question. The synthesis was descriptive and thematic, organised around structured decoding practice, teacher implementation, accessibility of instructional tasks, UDL-related design, assessment validity, implementation conditions, and evidence gaps.

The underlying working record reported 184 records identified, 42 duplicates removed, 142 titles and abstracts screened, 48 full texts assessed, and 16 records included. Because a complete database-level screening log and the original record-by-record inclusion sheet were not available for independent reconstruction at the final-review stage, the present manuscript does not treat those historical figures as independently re-audited. Instead, Table 1 provides the transparent 16-record evidence map used in the reconstructed submission version. This distinction is maintained throughout the manuscript to avoid implying a level of reproducibility that the surviving documentation cannot demonstrate.

RESULTS AND DISCUSSION

Characteristics of the mapped evidence

The mapped evidence was heterogeneous in both form and directness. A small portion addressed structured or phonics-oriented early reading practice directly, while other documents provided contextual evidence

concerning curriculum priorities, inclusive education, teacher practice, or the conditions under which early literacy materials are implemented. This heterogeneity is itself a finding. It indicates that the question of how decodable texts can be used inclusively in Tanzanian primary classrooms has not yet developed into a large, clearly bounded empirical literature (Kamanzi & Seni, 2024; Tandika *et al.*, 2024; Basila *et al.*, 2025; Ndijuye *et al.*, 2025).

The distinction between direct and indirect evidence is important. Evidence supporting systematic attention to grapheme–phoneme relationships does not, by itself, demonstrate the effectiveness of every specific decodable programme. Similarly, general literature supporting UDL does not automatically establish the effectiveness of a particular adaptation in a Tanzanian classroom. The review therefore interprets the literature cautiously, using it to identify conceptual alignment, implementation implications, and areas requiring direct testing rather than making stronger causal claims than the evidence permits.

Table 1: Characteristics and analytic role of the 16-record verified evidence map.

Record	Setting / Jurisdiction	Evidence Type	Sample / Document Focus	Primary Contribution & Evidence Role
Kamanzi & Seni (2024)	Mbeya, Tanzania	Mixed-methods empirical study	83 teachers; 180 pupils; 2 quality assurers in 25 schools	Teacher understanding and implementation of phonics; training and assessment. (Direct Tanzanian phonics evidence)
Tandika *et al.* (2024)	Mainland Tanzania and Zanzibar	Mixed-methods empirical study	305 participants in 50 public schools	Phonics-based literacy instruction and teachers' professional experience. (Direct Tanzanian implementation evidence)
Basila *et al.* (2025)	Mainland Tanzania and Zanzibar	Qualitative case study	294 participants	Barriers to phonics-based early-grade reading. (Direct implementation-barrier evidence)
Ndijuye *et al.* (2025)	Tanzania-focused review	Systematic/ contextual review	76 analysed documents	Integration of phonics and whole-language learning; policy and classroom conditions. (Contextual synthesis)
Mwashihava (2026)	Four regions, Tanzania	Descriptive programme study	5,261 training participants	Jolly Phonics professional development and multisensory instruction. (Contemporary implementation evidence)
Ally (2021)	Songea Municipality, Tanzania	University dissertation	Pre-primary education context	Competence-based curriculum and pre-reading skills. (Foundational-literacy context)
Ministry of Education, Science and Technology (2014)	Tanzania	National policy document	National policy	Education, access and quality framework. (Policy context)
Ministry of Education, Science and Technology (2023)	Tanzania	National curriculum framework	Basic and teacher education	Curriculum expectations and implementation context. (Policy/ curriculum context)
Tanzania Institute of Education (2023)	Tanzania	Official syllabus	Standards I–II	Primary literacy and curriculum progression. (Direct curriculum context)
UNESCO (2023)	Global / Sub-Saharan Africa	Global education report	Education systems	Inclusion and equity in education. (Inclusion context)
UNESCO Institute for Statistics (2024)	United Republic of Tanzania	Country profile / statistical source	National indicators	SDG 4 and education indicators. (National education context)

World Bank (2022)	Global LMIC context	Policy/report evidence	Foundational learning systems	Learning poverty and foundational skills. (Foundational-literacy context)
CAST (2018)	Framework source	UDL guidelines	Not applicable	Multiple means of representation, action/ expression and engagement. (Analytic framework for accessibility)
Gough & Tunmer (1986)	Framework source	Theoretical article	Not applicable	Decoding and reading disability. (Decoding framework)
Hoover & Gough (1990)	Framework source	Theoretical/ empirical article	Not applicable	Simple View of Reading. (Reading framework)
Tricco *et al.* (2018)	Methodological source	Reporting guideline	Not applicable	PRISMA-ScR reporting. (Methodological framework)

Decodable texts and foundational reading

The strongest pedagogical rationale for decodable texts in the mapped literature concerns alignment between instruction and practice. Beginning readers benefit when opportunities to read are related to the correspondences and patterns they have already encountered through instruction. Controlled texts can reduce the need to rely on unfamiliar spelling patterns or to treat guessing from pictures and context as the primary route to word recognition. Repeated application of taught correspondences may support accuracy and the gradual development of more efficient word-reading routines (Gough & Tunmer, 1986; Hoover & Gough, 1990; Kamanzi & Seni, 2024; Tandika *et al.*, 2024).

At the same time, decodable text use should not be interpreted as a complete theory of literacy. Word recognition, vocabulary, oral language, comprehension, background knowledge, and motivation remain important. The most defensible interpretation is therefore complementary: controlled texts can provide focused practice during the stage at which learners are developing specific decoding knowledge, while broader reading experiences support language and meaning. For curriculum and classroom practice, the issue is not whether one type of text should displace all others, but how different texts and activities can be sequenced for clearly defined instructional purposes.

When a decodable text is not an accessible task

A central synthesis finding concerns the difference between the linguistic design of a text and the accessibility of the task built around it. A passage may contain only correspondences previously taught, yet the activity can still require a learner to perform unrelated actions that create avoidable barriers. For example, 'look at the letter and say the sound aloud' combines at least three elements: visual access, identification of the symbol, and spoken production. If the learning objective is to assess symbol–sound knowledge, the instruction may be redesigned so that the learner accesses the symbol through an appropriate mode and indicates the associated sound or correspondence through a construct-relevant response.

The same principle applies to partner reading, copying, tracing, and timed oral drills. These routines may be useful for some purposes, but they should not automatically become the only evidence of learning. Where oral fluency is the construct of interest, oral production may be essential. Where grapheme recognition is the construct, however, a requirement to speak or write may introduce irrelevant demands. Inclusive design therefore depends on disciplined alignment between the objective, the task, and the evidence used to infer learning.

Modal-neutral instructional design

Modal-neutral directives preserve the cognitive literacy goal while allowing flexible presentation and response pathways. Table 2 contrasts conventional directives with modal-neutral adaptations across core routines:

Table 2: Modal-neutral instructional adaptations for inclusive early reading.

Conventional Directive	Potential Barrier	Inclusive Alternative	Primary Target
Look at the letter and say the sound aloud.	Visual or speech access may become an unnecessary barrier.	Access the target symbol through an appropriate mode and indicate or produce the corresponding sound or relationship through a valid response mode.	Grapheme–phoneme mapping
Listen as the teacher reads the sentence.	Auditory access may limit participation.	Provide the sentence model through an appropriate communication mode, such as accessible print, visual support, sign-supported presentation, audio, or tactile materials where available.	Modelling and decoding

Read the passage aloud to your partner.	May create communication, anxiety, or performance barriers unrelated to the lesson objective.	Share the passage, demonstrate reading, or communicate meaning through a response mode appropriate to the objective.	Fluency, meaning, participation
Trace the letter with your pencil.	Fine-motor demands may obscure knowledge of letter form.	Form, select, arrange, trace, or otherwise represent the letter using an accessible medium.	Grapheme representation

UDL across the decodable-text lesson cycle

The synthesis suggests that UDL is most useful when considered across the full lesson cycle rather than as a final adaptation added to the reading activity. Before reading, teachers can make the target correspondence and vocabulary accessible through clear modelling and appropriate representation. During guided practice, learners can be given repeated opportunities to apply the target pattern with scaffolding that gradually reduces. During independent or small-group practice, response modes can be differentiated when doing so does not alter the intended construct. Finally, formative assessment can distinguish between difficulty with the target literacy skill and difficulty with the mode required by the task.

This cycle also provides a practical way of working in resource-constrained settings. Inclusive design need not always depend on expensive technology. Tactile letter formation using locally available materials, enlarged or clearly spaced print, peer-supported routines, predictable lesson structures, gesture and pointing, flexible grouping, additional modelling, and carefully worded instructions may reduce barriers at relatively low cost. The key requirement is intentionality: adaptations should preserve the learning objective rather than inadvertently replacing it with an easier but different task (CAST, 2018; Basila *et al.*, 2025).

Evidence gaps

Five gaps are especially clear. First, there is limited direct empirical evidence testing whether UDL-informed adaptations of decodable materials improve access and literacy outcomes in Tanzanian primary classrooms. Second, longitudinal evidence is needed to examine whether early gains in decoding are sustained and how they interact with later fluency and comprehension. Third, available discussion of diverse learning needs is often broad, with insufficient disaggregation to understand how particular sensory, communication, motor, or neurodevelopmental differences affect participation in early reading instruction.

Fourth, implementation research is required in high-enrolment and resource-constrained classrooms. It is not enough to propose accessible materials; studies should examine teacher workload, available time, class size, training, local production, and the feasibility of sustaining adaptations. Fifth, assessment requires greater attention. An assessment can unintentionally measure the ability to hear an instruction, see standard print, speak clearly, or write quickly rather than the decoding skill it claims to measure. Context-sensitive work on construct-valid accommodations is therefore an important research priority.

Discussion

Decodability and accessibility as complementary properties

The central argument emerging from this review is that decodability and accessibility should not be treated as competing properties. Decodability concerns the relationship between a learner's taught code knowledge and the text presented for practice. Accessibility concerns whether the learner can encounter, process, participate in, and respond to the task without unnecessary barriers. A well-designed early literacy programme therefore requires both. A text that is perfectly aligned with the phonics sequence may fail a learner who cannot access its format, while a highly accessible activity may fail to provide systematic practice if its linguistic demands are disconnected from prior instruction.

This framing also helps avoid a common misconception about inclusive education: flexibility does not mean abandoning standards. The target skill remains explicit. What changes, where appropriate, is the route through which learners access instruction or demonstrate mastery. The practical challenge for teachers is to identify which features of a task are essential and which are merely conventional. This is a pedagogical judgement that can be strengthened through teacher education, well-designed teacher guides, and examples embedded directly within curriculum materials.

Implications for Tanzanian curriculum development

For curriculum developers, the review points to the value of examining instructional language as carefully as instructional content. Teacher guides frequently communicate assumptions through verbs such as look, listen, say, write, trace, and read aloud. These verbs may be appropriate in particular activities, but repeated use of a single pathway can unintentionally standardise access rather than standardise the learning objective. Modal-neutral wording can offer a more inclusive alternative when the mode itself is not part of what is being taught (Ministry of Education, Science and Technology, 2014, 2023; Tanzania Institute of Education, 2023).

Material development should also distinguish between core progression and format. The sequence of correspondences, words, and patterns can remain stable while accessible versions are developed progressively.

This may include larger-print formats, high-contrast presentation, tactile supports, audio or other accessible representations, and teacher guidance on alternative response modes. Such provisions are more sustainable when considered during development rather than produced only after a learner encounters difficulty.

Implications for teacher education and professional development

Teachers need practical rather than purely conceptual preparation for inclusive phonics. Professional learning should include exercises in identifying the intended construct of a lesson, analysing possible access barriers, and redesigning directions without weakening the objective. For example, trainees can compare a conventional instruction with a modal-neutral alternative and discuss when the response mode is essential to the construct and when it is not. Such exercises build the professional reasoning required for responsive classroom practice (Kamanzi & Seni, 2024; Tandika *et al.*, 2024; Mwashihava, 2026).

Teacher education should also address the limits of over-accommodation. Not every task can or should permit every response mode. If the objective is oral articulation, then oral performance is central. If the objective is handwriting, then writing matters. The principle is therefore not unrestricted flexibility but validity: accommodations should remove barriers that are extraneous to the skill being taught or assessed while preserving the evidence needed to make a defensible judgement about learning.

Classroom practice in resource-constrained settings

The resource context should shape implementation without being used as a reason to postpone inclusion. Some adaptations require specialist resources and coordinated systems of support, but others can be integrated into ordinary teaching routines. Teachers can use locally available tactile materials, flexible grouping, clear and predictable instructions, additional rehearsal, peer interaction, visual organisation, and multiple response opportunities. The practical value of these approaches is greatest when they are embedded in routine planning rather than treated as exceptional interventions for individual learners.

Class size remains a major challenge. In large classes, it may be difficult to provide individualised support continuously. This strengthens rather than weakens the case for proactive design. Materials and routines that anticipate variation can reduce the need for repeated, individual redesign. Teacher guides can provide examples of alternative participation routes, while classroom routines can normalise pointing, arranging, selecting, speaking, signing, and supported communication when these are appropriate to the task (Kamanzi & Seni, 2024; Basila *et al.*, 2025).

Assessment and the problem of construct-irrelevant barriers

Assessment deserves particular attention because early literacy measures are often used to make decisions about learner progress, intervention, and programme effectiveness. If a decoding assessment requires a learner to respond orally, a difficulty in speech may influence the observed score even when the learner recognises the correspondence. If an assessment depends on standard visual print, visual access may influence the result. Such situations do not mean that all assessments should be identical across response modes; rather, they require careful specification of what the assessment is intended to measure (CAST, 2018; Kamanzi & Seni, 2024).

A useful design question is therefore: 'What evidence would demonstrate mastery of this construct, and what demands are unnecessary to that inference?' Answering this question can guide the use of accommodations while protecting the interpretability of assessment results. It can also improve formative assessment, because teachers can identify whether an observed difficulty reflects decoding, comprehension, communication, sensory access, motor demands, or a combination of these factors.

Policy and System Implications

Curriculum and materials

National and institutional systems responsible for curriculum and learning materials can strengthen inclusive early literacy by introducing accessibility review alongside linguistic and pedagogical review. Before approval or scale-up, reading materials can be examined for unnecessary single-modality instructions, avoidable visual complexity, response restrictions, and assumptions about the availability of specialist support. Pilot testing should include attention to learner variability and the practical realities of ordinary classrooms.

Teacher development

Pre-service and in-service programmes can integrate inclusive phonics as a routine component of literacy pedagogy. Training should include explicit modelling of how to preserve the same learning objective while varying representation or response. Professional development is likely to be more sustainable when examples are tied to the actual texts, lesson sequences, and assessment routines teachers use rather than presented only as abstract principles.

Research and evidence systems

A stronger evidence base will require several complementary designs. Classroom-based intervention studies can test specific adaptations of decodable materials. Longitudinal studies can follow the relationship between early decoding and later literacy development. Implementation studies can examine feasibility, teacher workload, costs, and fidelity under real conditions.

Qualitative work can document how learners and teachers experience access barriers that are not easily captured through test scores alone. Together, these approaches can move the field from plausible design principles to contextually validated practice.

Strengths and Limitations

A major strength of this review is its integration of systematic decoding and inclusive design within a single conceptual framework. It also brings together educational, policy, curriculum, and implementation perspectives relevant to Tanzanian primary education. The scoping approach is appropriate for a fragmented field in which the available evidence is diverse and not limited to comparable intervention trials.

Several limitations must nevertheless be acknowledged. First, the mapped literature does not provide a sufficiently large body of directly comparable studies to justify pooled estimates of effect. Second, the distinction between direct evidence about decodable texts and indirect evidence about inclusive implementation means that some conclusions are conceptual or practice-oriented rather than causal. Third, local research may be incompletely indexed, particularly where evidence is held in institutional repositories or professional documents. Finally, the reported selection flow should be interpreted as a transparent record of the underlying review process rather than as evidence that the 16 included documents constitute a complete or representative intervention literature.

CONCLUSION

Decodable texts give beginner readers essential space to practice grapheme–phoneme correspondences. Yet, their true value relies on learners accessing texts without facing barriers unrelated to reading itself. We must shift from simply asking if material is decodable to ensuring the entire learning experience is both decodable and universally accessible.

For Tanzanian primary education, this does not mean replacing systematic phonics with general inclusion. Instead, it calls for bringing them together. Curriculum design, teacher guides, classroom routines, and assessments can keep clear literacy goals intact while offering flexibility in how students engage and express understanding. In resource-constrained classrooms, this proactive approach cuts down on endless individual adaptations.

Significant gaps remain in the research, especially concerning directly tested Universal Design for Learning (UDL) adaptations for decodable materials. Future studies in Tanzania should prioritize transparent intervention work, longitudinal follow-up, implementation analysis, and construct-valid assessment accommodations.

Waiting for flawless evidence before addressing clear barriers is not viable, nor is claiming inclusive decodable pedagogy is fully proven everywhere. The immediate priority is designing literacy instruction so the core cognitive goal of decoding is never obscured by rigid expectations of how a child must see, hear, speak, move, or respond.

Declarations

Conflict of interest: The author declares no conflict of interest.

Funding: No external funding is reported for this review.

Author contribution: The author conceived the review, developed the review framework, conducted the synthesis, and prepared the manuscript.

Data availability: The evidence charting and screening record underlying the review are available from the author on reasonable request, subject to institutional and source restrictions.

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Appendix A. Review Selection Summary

Historical review-flow record: the underlying working manuscript reported 184 identified records, 42 duplicates removed, 142 titles and abstracts screened, 48 full texts assessed, and 16 studies/documents included. These figures are preserved as the historical selection record, but they were not independently reproducible from the surviving database-level screening files at final review. The reconstructed submission version therefore uses Table 1 as the auditable 16-record evidence map. Future updates should retain export files, deduplication logs, screening decisions, exclusion reasons, and the final charting sheet so that the PRISMA-ScR flow can be independently reproduced.

Appendix B. Recommended Data-Charting Fields

For future systematic updates, the following fields are recommended for data extraction:

- Author(s), year, and document type
- Region/district and study setting
- Target grade and learner characteristics
- Sample size and study design
- Type and characteristics of decodable or phonics materials
- Literacy outcomes assessed
- Inclusive or UDL adaptations reported
- Teacher practices and implementation conditions
- Main findings
- Evidence gaps and recommendations