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THE ROLE OF LINGUISTICS IN ELEMENTARY LANGUAGE EDUCATION: A SYSTEMATIC LITERATURE REVIEW

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Abstract

This review examines how linguistic knowledge informs literacy instruction, classroom discourse, and multilingual inclusion in elementary education. The source manuscript described searches in Scopus, Google Scholar, and ResearchGate, reporting 420 retrieved records and 53 eligible studies for 2014–2024. An audit identified a conflicting figure of 18 full-text articles; consequently, the final study denominator and corpus-wide frequencies cannot yet be verified. We therefore present a structured, evidence-traceable synthesis of selected cited studies rather than unsupported pooled claims. Illustrative findings connect phonological and morphological awareness with early literacy, language-focused intervention with modest reading gains, teacher linguistic knowledge with instructional mediation, and multilingual policy with participation and inclusion. Evidence also reveals tensions between language simplification and disciplinary precision, as well as between linguistic differences and deficit-oriented interpretations. We propose a multilevel framework linking linguistic resources, pedagogical enactment, equitable participation, and measurable learning. Completion of a reproducible screening log, study-level extraction matrix, and methodological quality appraisal is required before this manuscript can substantiate a fully systematic synthesis.

Keywords: Education; Elementary School; Impact; Language; Linguistic

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INTRODUCTION

Language education at the elementary level involves more than the accumulation of vocabulary or the memorization of grammatical rules. Students must learn to recognize how sounds, words, sentences, and texts construct meaning in interactions shaped by classroom tasks, social relationships, and language histories. Studies of French spelling errors, bilingual reading development, and early literacy interventions illustrate why phonology, morphology, orthography, and semantic knowledge are relevant to elementary learning (Joye et al., 2022; Novita et al., 2022; Zoski & Erickson, 2017). Yet these linguistic dimensions do not translate automatically into effective teaching.

The literature distinguishes several components of early language processing rather than treating literacy as a single undifferentiated outcome. Studies of phonological memory and awareness, morphological sensitivity, and word-level spelling examine partly different aspects of children's linguistic development (Cárnio et al., 2015; Han & Kim, 2018; Werfel et al., 2019). The cross-language transfer of handwriting performance adds a related, but

distinct, dimension of written-language learning (Salameh-Matar et al., 2022). These investigations justify assessing the language feature actually targeted by an instructional activity.

At the classroom level, teachers mediate between the complexity of disciplinary language and students' opportunities to participate. In elementary science read-alouds, teachers alternated between simplifying complex linguistic input and introducing specialized language (Glass & Oliveira, 2014). Teacher education offers another entry point: an instructional course based on systemic functional linguistics strengthened teacher candidates' recognition of linguistic and genre-related features, although the use of technical metalanguage remained incomplete (Dost, 2021). These studies imply that linguistic knowledge must be enacted through particular explanations, discussion routines, and text-analysis practices.

Differences in literacy performance also require attention to learner characteristics and the tools used to evaluate progress. Research has addressed the combined relevance of socioeconomic status and dyslexia to reading-related skills, while a word database for early readers has been developed to support more systematic selection of reading materials (Asadi et al., 2023; de Oliveira et al., 2021). Work on comprehension tools for teachers further links diagnostic information to the practical challenge of designing responsive literacy instruction (McDonald Connor et al., 2014). None of these sources, by itself, establishes that every elementary student benefits from an identical linguistic intervention.

Language education also involves questions of equity. A large observational study reported differences in Grade 4 reading comprehension between monolingual learners and differently situated bilingual groups, while their phonological processing skills were comparable (Novita et al., 2022). In contrast, longitudinal school-based research documented how multilingual language policies could support newly arrived students' participation across language-support and mainstream settings (Wedin & Wessman, 2017). Such evidence cautions against treating linguistic diversity itself as a learning deficit or assuming that instructional effects can be separated from context.

This pedagogical relationship depends partly on teachers' beliefs and professional preparation. Studies have examined elementary teachers' linguistic-educational conceptions, their understanding of communicative language teaching, and the construction of curricula for young language learners (Iparraguirre & Scheuer, 2016; Li & Peng, 2022; Rixon, 2019). The "Little Linguists" initiative offers a further example of engagement between university students and elementary learners, although a program description should not be interpreted as evidence of a universal learning effect (Farris-Trimble & Reid, 2019).

Existing work therefore illuminates particular linguistic components, interventions, teacher practices, and inclusion policies, but the connection among these levels has remained insufficiently explicit in the source manuscript. Its earlier discussion treated a broad range of citations as interchangeable support for the general importance of linguistics, without specifying whether a claim concerned an observed learner association, a tested instructional intervention, teacher learning, or a policy and classroom process. This conflation limits both evidence interpretation and curriculum recommendations. This review addresses that analytic gap by distinguishing the mechanism, site of enactment, type of evidence, and scope of inference in elementary language education.

The sociocultural literature makes additional distinctions between heritage-language learning, lexical development in multilingual settings, and children's responses to geographical language varieties (Dávila, 2017; Papazachariou et al., 2018; Rinker et al., 2022). Research on Indigenous children's school trajectories also illustrates that linguistic participation may be embedded in local histories of schooling (Angulo, 2021). These

studies cannot be collapsed into a single measure of "multilingual advantage" or "multilingual disadvantage."

Conceptual distinctions are important for this task. Phonological awareness concerns sensitivity to the sound structure of words; morphological awareness concerns meaningful word parts; syntactic and semantic knowledge are required for interpreting sentence relationships and vocabulary in context. Pragmatics and sociolinguistics, meanwhile, examine how meaning and appropriateness depend on participants and interactional settings. In primary classrooms these domains intersect, yet interventions typically emphasize only some of them. A review that names all dimensions without tracing the relation between learning target, teaching move, and outcome risks explaining too much and demonstrating too little (Schleppegrell & Moore, 2018).

The issue is especially relevant when education spans a first language, a school language, and a heritage or additional language. Students may possess linguistic strengths that are not visible through a single language of assessment, while teachers must make disciplinary discourse accessible without making its meanings imprecise. Comparative multilingual education in South Tyrol, for example, has investigated metalinguistic awareness and proficiency across several languages (Hofer & Jessner, 2019). Such work motivates a review organized around the conditions and mediators of learning, not a simple positive-versus-negative inventory of linguistic approaches.

Language opportunities are shaped outside the classroom as well. Longitudinal research has related early parent–child book reading to later vocabulary and comprehension after accounting for other language input, while an investigation of migrant parents describes structural conditions affecting access to school resources (Campbell-Montalvo & Pfister, 2021; Demir-Lira et al., 2019). The latter is a contextual study, not an estimate of the effectiveness of any language-teaching technique. Preparation for culturally and linguistically responsive support therefore deserves explicit consideration when translating linguistic theories into classroom practice (Hoover & Soltero-González, 2018).

The review asks: (1) Which linguistic dimensions and instructional processes are represented in the traceable literature? (2) What does the evidence establish, and what remains uncertain, about language and literacy learning? and (3) How do teacher mediation and sociocultural conditions qualify the application of linguistic concepts? Its intended contribution is a multilevel explanatory synthesis connecting linguistic resources, pedagogical enactment, and equitable participation. This framework is proposed as an interpretive contribution rather than a validated causal model. Because the source selection records are incomplete, conclusions about the prevalence of any theme across the originally claimed 53 studies remain provisional.

Indonesian elementary-school research provides a particularly useful contextual contrast. A qualitative study by Utaminingsih and colleagues documented restricted learning media, low listening engagement, monotonous strategies, and challenges in teaching Bahasa Indonesia in a Grade 3 classroom (Utaminingsih, Sulasih, et al., 2023). A separate investigation described the characteristics and instructional needs of Grade 3 students, whereas a study of barriers to Indonesian-language learning focused on difficulties in school implementation (Khoiruman, 2021; Utaminingsih & Purwati, 2024). These studies contribute locally grounded evidence about classroom conditions; they do not independently demonstrate gains attributable to a specified linguistics-based intervention.

METHODS

Review design and source audit

The review was originally designed as a literature review informed by PRISMA 2020 (Page et al., 2021), focusing on applications of linguistics to elementary language education. It reports a 2014–2024 publication window and searches in Scopus, Google Scholar, and ResearchGate. These sources are not equivalent in indexing scope: Google Scholar is a broad discovery tool, while ResearchGate is a research-sharing platform rather than a curated bibliographic database. The accessible search documentation does not provide reproducible full Boolean search strings, search dates, a deduplication log, or a list of unique included records. Consequently, PRISMA 2020 compliance should not be claimed until these details are reconstructed and verified.

The reported identification records list 393 Scopus results, 25 Google Scholar results, and two ResearchGate results (420 in total). It reports 93 records after initial filters (82 from Scopus and 11 from the other two sources), 68 following title and abstract screening, and 53 following eligibility assessment. However, the same flow graphic labels only 18 full-text articles as analyzed. The counts 53 and 18 cannot both serve as the final included-study denominator without an explanation. Table 1 preserves the reported values but explicitly distinguishes arithmetic consistency from independently confirmed eligibility.

Table 1.
Reported literature-selection counts and audit status

Stage	As reported	Audit interpretation
Identification	Scopus 393; Google Scholar 25; ResearchGate 2 (total 420)	Search strings, dates, duplicates not documented
Initial filters	82 Scopus + 11 other sources = 93	420 − 93 = 327 excluded; source graphic splits these as 311 + 16
Title/abstract screening	93 − 25 = 68	Arithmetic aligns with source graphic, but reasons are missing
Eligibility	68 − 15 = 53	Full-text exclusion reasons and unique-study list unavailable
Full-text analysis	18 articles (separate figure label)	Unresolved discrepancy with 53 allegedly eligible studies

The numbers reproduce the source manuscript, not a newly validated PRISMA flow. A definitive diagram must be generated from the dated search export, deduplication decisions, and the list of full texts reviewed.

Eligibility, data charting, and synthesis

The stated scope emphasizes empirical articles published between 2014 and 2024 concerning primary-school learners, elementary classrooms, or teacher preparation for such classrooms, with a relevant linguistic mechanism or language-education outcome. The reported search procedure also describes English-language and open-access filters for part of the search. Because screening forms and excluded-record decisions are unavailable, applying these as a fully verified set of inclusion rules would misrepresent the underlying work. In a final systematic version, eligibility decisions must be documented study by study, with duplicates and non-empirical or out-of-scope works removed explicitly.

In operational terms, a study should be considered eligible for the complete review only when it (a) has an identifiable empirical design or directly investigates primary-school

classroom practices, (b) specifies elementary learners or educators working in that context, (c) analyzes an identifiable linguistic feature or language-use process, and (d) reports an observable learning, instructional, or inclusion-related outcome. Publication year and source-type restrictions must be applied uniformly across databases. The references in the earlier draft include books, chapters, work outside the elementary level, and publications outside the stated date window; these should serve as theoretical background only when appropriate and must not be silently counted as included empirical studies.

To enable a traceable synthesis, identifiable sources were organized by an explicit charting schema: author/year; geographical and educational setting; population; research design; linguistic dimension; pedagogical practice; outcome or observation; and main limitation. Thematically, evidence was grouped at three linked levels: linguistic and literacy processes, teacher and classroom mediation, and multilingual or sociocultural participation. A fourth cross-cutting category considered digital and multimodal contexts where an elementary-school connection could be established. A study could inform several interpretive themes, but these categories were not converted into study frequencies because the complete 53-study extraction matrix was unavailable. Table 2 records the analytic rules needed for a reproducible recoding of the final corpus.

Table 2.
Evidence-charting and thematic synthesis scheme

Dimension	Coding decision / example	Basis for synthesis
Linguistic resources	Phonology, morphology, spelling, syntax, semantics, pragmatics	Identify precise feature and learner outcome; avoid generic "linguistics" label
Pedagogical mediation	Teacher language, explicit instruction, genre analysis, dialogue, intervention	Separate observed practice from evaluated change
Participation and context	Home languages, inclusion, policy, sociocultural positioning	Identify population and setting; do not infer deficit from group differences
Evidence strength	Descriptive, observational, quasi-experimental, case/ethnographic	Keep association, feasibility, intervention impact, and policy process distinct

The analytic unit is an individual empirical study rather than the number of citations in a paragraph. A complete extraction sheet should therefore assign a stable study ID, preserve the full bibliographic record and DOI, indicate whether multiple reports use the same data, and record verbatim evidence or page references supporting each thematic judgment. In coding, the same study may contribute to more than one theme while still being counted only once when reporting the total number of studies. A coding decision is defensible only when its criterion and supporting text are both documented. Without this procedure, claims that a particular region, design, or linguistic dimension is "dominant" cannot be substantiated.

The synthesis compared claims according to study design rather than averaging heterogeneous outcomes. For intervention research, reported changes are distinguished from controlled effects and the size of the sample is considered. In ethnographic and classroom discourse studies, the analytical emphasis is on explanatory processes and transferability rather than on population-level effect size. No evidence is currently available of a formal risk-of-bias assessment or independent double coding; therefore, neither is claimed here. These procedures, including agreement resolution and a source-to-theme

audit trail, remain necessary before the review can be represented as a complete systematic review.

RESULTS & DISCUSSION

Evidence coverage, research settings, and design patterns

Any aggregate research map would ordinarily describe publication years, study locations, participant groups, methodological designs, and reported outcomes using a denominator consistent with the final PRISMA flow. Here, only illustration-level information can be reported. The sampled studies should not be interpreted as random or proportionate representations of the claimed final corpus. Their value lies in showing how an explicit evidence table changes the analysis: findings drawn from a small uncontrolled intervention are phrased differently from those in a controlled comparison, and field observation is not presented as a causal estimate.

The extractable examples cited below span North American interventions and classroom observations, European cohort and multilingual policy investigations, Turkish teacher education, and Indonesian elementary language instruction. This is a description of individually traceable sources, not a geographical distribution of all 53 claimed studies. The represented designs range from a small feasibility intervention to a quasi-experimental field trial, longitudinal observation, classroom discourse analysis, qualitative teacher education, and ethnographic action research. Because this variation affects which claims are defensible, Table 3 presents results alongside their methodological qualifications rather than presenting every study as equivalent proof of effectiveness.

Table 3.
Illustrative evidence from traceable cited studies (not the full 53-study corpus)

Study / setting	Design / sample	Relevant finding	Interpretive boundary
Zoski & Erickson (2017); USA	Six-week feasibility intervention; 17 kindergarten students	Reading and linguistic-awareness measures improved; no significant difference across the tested intervention types	Small sample; preliminary feasibility, not definitive comparative effectiveness
Proctor et al. (2020); USA	Quasi-experimental field trial; 239 bilingual Grade 4–5 students	Language-focused instruction showed effects on academic language (g = 0.248) and comprehension (g = 0.166)	Modest effects; setting and bilingual population matter
Joye et al. (2022); France	Descriptive spelling analysis; 194 Grades 1–5 students	Morphological spelling errors remained salient across grades	Error profile describes developmental patterns, not treatment efficacy
Novita et al. (2022); Germany	Observational panel data; 2,348 Grade 4 students in three language groups	Differences in comprehension and linguistic knowledge; phonological processing more similar across groups	Association does not demonstrate bilingualism causes lower reading outcomes

Glass & Oliveira (2014); USA	Observations of science read-alouds by five teachers	Talk simplified texts while sometimes building uptake of specialized science language	Context-specific mediation; not a controlled attainment study
Dost (2021); Turkey	Qualitative case study; 19 teacher candidates	Greater recognition of genre/language elements following an SFL-informed course	Incomplete metalanguage use; no causal controlled comparison
Wedin & Wessman (2017); Sweden	Longitudinal ethnographic action research	Multilingual school policies supported inclusion and transitions between support and mainstream work	Context-dependent practice and policy analysis
Gunawan et al. (2022); Indonesia	One-group pretest–posttest; 22 Grade 6 students	Post-intervention language-skill scores increased	No control group; improvement cannot be attributed conclusively to treatment

Theme 1: Linguistic awareness and measurable literacy learning

Several studies link specific aspects of linguistic knowledge to elementary literacy, but the evidence they present supports different kinds of conclusions. Joye et al. (2022) used a linguistic spelling framework to distinguish error types made by French learners across Grades 1–5; this supports more diagnostic classroom assessment. Novita et al. (2022) examined longitudinal predictors of reading in monolingual and bilingual children and identified group differences on language-related measures, whereas phonological processing was comparable between groups. Neither study evaluates a classroom program, so their descriptive and associative findings cannot, by themselves, establish the effectiveness of explicit linguistic instruction.

Complementary studies clarify the breadth of outcomes included under linguistic awareness. Research on morphological awareness, spelling accuracy, and phonological memory concerns associated but nonidentical constructs (Cárnio et al., 2015; Han & Kim, 2018; Werfel et al., 2019). An investigation of dyslexia and socioeconomic conditions and the development of a database for selecting words to read further illustrate how learner variability and instructional resources affect the interpretation of language performance (Asadi et al., 2023; de Oliveira et al., 2021). These findings are better used to specify mechanisms and measurement choices than to support one undifferentiated effectiveness claim.

Intervention studies offer a more direct instructional perspective. In a quasi-experimental trial, Proctor et al. (2020) reported positive but modest effects of language-based small-group reading instruction for bilingual students. Zoski and Erickson (2017) also found improved language and literacy indicators in a small feasibility study, yet no significant advantage of one tested intervention format over another. Accordingly, the evidence does not warrant a universal claim that combining more linguistic components always produces greater learning gains. Rather, it supports attention to the precise components taught, the assessment selected, and the learners for whom an approach is feasible.

The meaning of reading outcomes also varies across settings. The design of comprehension supports for teachers and the linguistic simplification of mathematics test items show why academic-language demands need to be examined within particular tasks, not only within language lessons (Haag et al., 2015; McDonald Connor et al., 2014).

Evidence on parent–child shared book reading extends the comparison beyond formal instruction while remaining observational rather than an elementary-school intervention trial (Demir-Lira et al., 2019).

Theme 2: Teacher linguistic knowledge becomes consequential through mediation

Research into teaching processes clarifies why linguistic knowledge is educationally useful only when it is translated into tasks and classroom interactions. Glass and Oliveira (2014) observed that teachers spent substantial time discussing texts during science read-alouds, often simplifying lexical input while also providing opportunities to acquire disciplinary language. This constitutes a pedagogical tension: accessibility may require reformulation, whereas academic development also requires encounters with precise vocabulary. Effective mediation thus involves purposeful alternation between explanation, student talk, and the use of more specialized forms rather than indiscriminate simplification.

This mediation mechanism also changes the design of classroom assessment. When the target is morphological awareness, an assessment should probe recognition or use of word parts; when the target is comprehension, it should require interpretation of text rather than reproduction of definitions. Likewise, the analysis of classroom talk should distinguish attempts to make vocabulary understandable from opportunities to practice sophisticated disciplinary language. These distinctions create a testable bridge from linguistic theory to observable lesson design. Work on language-aware pedagogy emphasizes attention to classroom texts and dialogue rather than isolated terminology (Schleppegrell & Moore, 2018).

Teacher knowledge itself is modifiable but not automatically complete. Dost (2021) showed that teacher candidates participating in a systemic functional linguistics course increasingly identified genre and language features in published and student writing. Nevertheless, participants did not fully use metalanguage by the end of the course. This distinction argues for professional learning that assesses application in lesson planning, response to learner texts, and classroom explanation, rather than measuring knowledge of terms alone. Gunawan et al. (2022) additionally reported improved language scores following an Indonesian verbal-linguistic learning design, although its one-group design does not rule out alternative explanations.

Professional learning must encompass teachers' existing conceptions of how children speak and write as well as their stated orientations toward communicative pedagogy (Iparraguirre & Scheuer, 2016; Li & Peng, 2022). Curriculum design and university–school engagement provide potential settings for this translation from conceptual knowledge to instructional decisions (Farris-Trimble & Reid, 2019; Rixon, 2019). Work on culturally and linguistically responsive educator preparation highlights the further need to align language support with the backgrounds of children and families (Hoover & Soltero-González, 2018).

Theme 3: Multilingual diversity is a condition of participation, not a deficit category

The multilingual dimension introduces an additional source of variation. Hofer and Jessner (2019) compared children experiencing multilingual educational programs with those following more traditional language instruction in South Tyrol. This supports the relevance of program context to questions about metalinguistic learning, but it should not be reduced to an unconditional recommendation for one language model in all settings. Van Viegen (202(2020) similarly describes plurilingual approaches across the curriculum, providing a conceptual rationale for recognizing the full range of language resources available to learners.

The social dimensions of educational linguistics alter how differences in reading and language performance should be interpreted. Novita et al. (2022) reported group patterns after socioeconomic adjustment, but the same study did not establish that multilingual experience itself caused difficulties. Ethnographic action research by Wedin and Wessman (2017) illustrated how school language policies that acknowledge learners' linguistic repertoires may facilitate participation and movement between supplementary language support and mainstream instruction. Collett (2018) likewise examined bilingual students' linguistic agency, while Fotiou and Ayiomamitou (2021) examined language-variety attitudes and relationships in a distinctive social setting.

These lines of work do not contradict language-focused interventions; they clarify that interventions should be designed without reducing bilingual learners to a single "low proficiency" group. Language choice, classroom identities, and access to valued ways of speaking influence whether students can deploy what they know. For curriculum design, explicit attention to language and inclusive multilingual pedagogy should be treated as complementary, yet their joint effects remain an empirical question that the current set of sources cannot resolve at scale.

Heritage-language and sociolinguistic studies broaden this account by attending to the ecologies of language learning, multilingual lexical development, children's interpretations of dialect differences, and schooling histories (Angulo, 2021; Dávila, 2017; Papazachariou et al., 2018; Rinker et al., 2022). Research on migrant families' access to schools makes clear that equitable participation cannot be reduced to an individual child's linguistic test score (Campbell-Montalvo & Pfister, 2021). Thus, an inclusive model requires both analysis of language features and scrutiny of whose linguistic resources are recognized in teaching.

Theme 4: Digital language practices and limits of generalization

Digital communication provides additional settings for linguistic meaning-making, including multimodal composition and socially situated language use (Mills et al., 2020; Mudiono, 2022). Nevertheless, digital tools should not be treated as evidence of successful linguistic instruction simply because they provide audio, text, video, or interactive tasks. Outcome claims require an elementary-school population, a clearly identified linguistic activity, and an assessment aligned with that activity. The present corpus audit does not support a frequency estimate or pooled effect for technology-assisted language instruction. This theme is therefore a direction for targeted investigation rather than a quantified finding of the review.

Digital language education also calls for careful separation of outcomes. Work on e-learning resources for the Slovene language concerns digital instructional materials, whereas the systematic review by Utaminingsih and colleagues examined digital literacy in relation to character education (Lopert & Koletnik, 2019; Utaminingsih, Ellianawati, et al., 2023). Neither source alone provides direct causal evidence that a digital application improves elementary phonological, morphological, or reading-comprehension performance. For this reason, a technology-mediated activity should be evaluated with language-specific measures, not merely enthusiasm or access indicators.

Cross-study tensions and theoretical contribution

A more discriminating interpretation emerges when evidence is compared across levels. Descriptive studies characterize language development; interventions estimate possible instructional benefit; teacher-education and classroom discourse studies show how linguistic knowledge is enacted; policy studies explain inclusion within institutional conditions. These categories cannot be conflated into the claim that linguistics invariably

improves every dimension of language education. In particular, the modest controlled effects observed by Proctor et al. (2020), the non-differentiation of tested interventions in Zoski and Erickson (2017), and the incomplete teacher metalanguage in Dost (2021) counter an exclusively celebratory account. The simplification/specialization tension documented by Glass and Oliveira (2014) adds a concrete pedagogical trade-off.

The review proposes a four-link interpretive pathway: (1) linguistic resources, such as form, meaning, and language variation; (2) pedagogical enactment through explanations, texts, tasks, dialogue, and assessment; (3) equitable opportunities to participate within multilingual and institutional contexts; and (4) observable learner outcomes, including comprehension, spelling, language use, and metalinguistic awareness. This pathway reframes educational linguistics from an inventory of language subfields into a set of testable relationships among knowledge, teaching practices, and participation. It is a conceptual synthesis of selected traceable evidence, not a causal framework that has been confirmed across 53 studies.

Limitations and future research

The proposed explanatory pathway suggests practical priorities for elementary teacher education. Coursework could begin with interpreting authentic child-language evidence, progress to planning text and talk supports, and culminate in assessment tasks that reveal whether learners can use new language resources independently. For example, a teacher might analyze morphological spelling errors, plan a brief comparison of word forms, facilitate a discussion of how those forms change meaning in a real text, and collect written responses to determine what students have transferred. In multilingual settings, the same sequence must permit learners to connect home-language knowledge with the school language. These are design implications generated from the synthesis, not interventions that have already been demonstrated to be effective in the present review.

When applied in Indonesian elementary schools, such a sequence should begin with a classroom diagnosis rather than selecting a preferred technique in advance. The reported constraints of Grade 3 Indonesian-language instruction and research into Grade 3 learner characteristics support a needs-sensitive starting point (Utaminingsih & Purwati, 2024; Utaminingsih, Sulasih, et al., 2023). Linguistic barriers documented in Indonesian-language teaching, together with research on cross-linguistic writing and the developmental profile of bilingual analytical writing, provide useful prompts for choosing contextually appropriate tasks and outcomes (Khoiruman, 2021; Salameh-Matar et al., 2022; Tolchinsky et al., 2022). These are design implications across heterogeneous sources, not effects estimated by the present review.

Three restrictions are decisive. First, the search record and eligibility decisions were not provided, and the source document reports both 53 eligible studies and 18 full texts analyzed. Full-corpus geographical, temporal, methodological, and thematic distributions, therefore, remain unverified. Second, English-language and open-access filtering may omit relevant work, while using ResearchGate for discovery complicates reproducibility. Third, the studies illustrated here vary widely in design and outcome and have not undergone a documented independent risk-of-bias appraisal. The summary cannot estimate a pooled effect or establish whether any theme is dominant across the full corpus.

Before resubmission, the review should be rebuilt from an auditable record of unique studies: dated search strings and exports, deduplication, explicit exclusion reasons, an included-study table, duplicate extraction/coding with disagreement resolution, and design-sensitive quality appraisal. Future primary studies should evaluate how teachers' linguistic knowledge affects classroom enactment and student outcomes, compare explicit language teaching across multilingual contexts, and report digital language interventions with clear

comparison groups and appropriate outcome measures. Such work would test which links in the proposed explanatory pathway are supported, for whom, and under which conditions.

CONCLUSION

The available traceable evidence indicates that educational linguistics is relevant to elementary learning at several distinct levels: linguistic awareness informs diagnosis and intervention, teacher discourse mediates access to challenging texts, and multilingual policies shape participation. Reported instructional gains vary in magnitude and strength of inference, and teacher learning does not necessarily imply full pedagogical mastery. Rather than equating linguistic knowledge with guaranteed achievement, this review offers a framework connecting linguistic resources, instructional enactment, inclusion, and assessed outcomes. Its immediate limitation is the absence of an auditable final included-study set: the original report of 53 eligible studies conflicts with a figure of 18 analyzed full texts. Reconciliation of those records and complete study-level coding are necessary before final corpus-wide claims can be made. Future investigations should test the proposed links across settings and distinguish the effects of language-focused pedagogy from contextual influences.

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