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Oral Language and Vocabulary Instruction for Preschool-Aged Students: A Narrative Synthesis

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Abstract

This review provides a narrative synthesis of 36 studies reporting results of oral language and vocabulary interventions delivered to preschool-aged children. We included studies published between 2018 and 2025. The purpose of this review is to summarize study and intervention characteristics and identify instructional components associated with stronger effects on oral language and vocabulary outcomes

Introduction

Oral language is the ability to understand and use spoken language (National Early Literacy Panel [NELP], 2008). For this narrative synthesis, we reviewed studies focused on two components of oral language: syntax and semantics. Syntax refers to the set of grammatical rules that govern word order and sentence structure, and semantics refers to meaning conveyed by words, sentences, and discourse. These oral language skills are developed across two domains: expressive language and receptive language. Expressive language is *production* of spoken language, and receptive language is *comprehension* of spoken language. Receptive language skills begin developing before expressive language skills, and they develop more quickly (Benedict, 1979; Gershkoff-Stowe & Hahn, 2013). That is, regardless of the size of their vocabulary repertoire, children often, but not always, understand a word before they can say it (i.e., a comprehension–production gap; Gershkoff-Stowe & Hahn, 2013). As children's vocabularies grow, they become more efficient at learning new words in both the receptive and expressive domains (Burchinal et al., 2022; Gershkoff-Stowe & Hahn, 2013).

Expressive and receptive language skills form a critical foundation for later literacy development (Snow, 2016), and stronger oral language skills in early childhood are consistently associated with more successful reading and writing development during formal schooling (NELP, 2008). Preschool children begin developing oral language skills through speaking and listening before they begin developing conventional literacy skills (e.g., decoding, writing, reading comprehension; Dickinson & Morse, 2019; NELP, 2008). Thus, oral language is the primary mode through which preschool children learn new information and express what they know (Stagnitti et al., 2016). Throughout early childhood, children develop their oral language system, building linguistic knowledge and increasingly complex vocabulary, grammar, and discourse skills (Castles et al., 2018). Between the ages of three and five, children experience rapid language growth, expanding productive language from simple phrases of two or three words to detailed sentences with increasing grammatical complexity (*Speech and Language Developmental Milestones* | *NIDCD*, 2022). As children learn more words and develop expressive and receptive language skills, their vocabulary knowledge becomes larger, more connected, and more sophisticated, with links between semantically related words growing in number and strengthening over time (e.g., happy, ecstatic; Gershkoff-Stowe & Hahn, 2013). Importantly, word learning is dynamic rather than linear, and children may learn, forget, relearn, and strengthen the depth of their knowledge of word meanings over time (Gershkoff-Stowe & Hahn, 2013).

The Science of Oral Language and Reading (SOLAR) framework (Snow, 2021) reasserts the critical role oral language serves in overall literacy development. The Language House schema (Snow, 2021), places particular emphasis on children's oral language experiences from birth to age five by presenting it as the foundation of the house, set upon the bedrock of children's social and emotional needs being met during early childhood. The walls of the house represent a language-rich instructional environment and home-literacy environment. This conceptualization highlights that strong oral language development is shaped by the qualities of children's early childhood experiences and their learning environments. Because oral language

serves as the foundation upon which later reading and writing skills are built, synthesizing research evidence to identify the most effective oral language and vocabulary instructional practices for preschool children is essential for supporting translation of research evidence into practice and supporting long-term literacy success.

When Oral Language and Vocabulary Interventions are Most Effective

The landmark report of the National Early Literacy Panel (2008) describes meta-analyses of approximately 500 studies focused on emergent literacy and provides information about the efficacy of a range of instructional practices focused on literacy development for children ages zero to five. As part of this report, the panel conducted meta-analyses for two categories of interventions that target oral language development: shared reading interventions and language enhancement interventions. They defined language enhancement interventions as those designed to "explicitly and directly improve young children's language skills, in terms of vocabulary development, syntactic sophistication, listening comprehension, and other similar aspects of language development" (National Early Literacy Panel [NELP], 2008, p. 211). In the sections that follow, we summarize effective approaches to oral language and vocabulary interventions within these two categories.

Shared Reading

Shared reading is an interactive read-aloud during which adults engage children in at least one planned activity (e.g., asking open-ended questions, defining vocabulary words; U.S. Department of Education et al., 2015). It offers a rich context for language development by providing more complex and varied linguistic input than that of everyday conversation (Flack et al., 2018). During shared reading sessions, adults use a wider range of vocabulary and more syntactically complex sentences, features that are supportive of children's vocabulary growth and oral language development (Massaro, 2015; Montag et al., 2015).

Shared reading has been widely examined as an instructional practice in early childhood settings. Overall, available evidence indicates that shared reading supports children's development of oral language skills and vocabulary knowledge; however, the magnitude and consistency of these effects vary depending on study design, instructional features, and comparison conditions. In 2008, the National Early Literacy Panel reviewed 19 randomized control trials and quasi-experimental studies of shared reading interventions. To be eligible, studies had to primarily or exclusively focus on shared reading. Across all outcome domains assessed (i.e., alphabetic knowledge, cognitive ability, phonological awareness, print knowledge, reading readiness, writing), the largest effects were observed on oral language outcomes (*ES* = 0.73), which included measures of vocabulary knowledge.

Subsequent reviews have reported smaller effect sizes than those reported in the NELP report (2008). Mol and colleagues (2009) conducted a meta-analysis of 31 experimental and quasi-

experimental studies of shared reading interventions, with interaction before, during, and after reading, delivered to both preschool and kindergarten students. They reported a moderate effect (d=0.54, p<.001) on oral language skills (including receptive vocabulary, expressive vocabulary, story comprehension, and syntax), and a slightly larger effect size for expressive language outcomes (d=0.62, p<.001). The mean effect on measures of receptive vocabulary was lower (d=0.45, p<.001) but did not statistically significantly differ from the effect on expressive vocabulary outcomes. Though teachers were not specifically trained to provide alphabetics instruction, modest effects were also reported for alphabetic knowledge (d=0.39, p<.01), phonological sensitivity (d=0.43, p<.001), and orthographic awareness (d=0.41, p<.001). Specific features of implementation moderated effects. Researcher-implemented shared reading yielded stronger effects than teacher-implemented shared reading on oral language and expressive vocabulary outcomes, though it is important to note that researchers more frequently delivered individualized instruction than teachers. Additionally, when comparing dialogic reading, interactive reading (shared reading not specified as dialogic reading; IR), and interactive reading with additional classroom activities (IR+), IR was most effective, followed by IR+, then dialogic reading. Dialogic reading implemented by researchers was more effective than dialogic reading implemented by teachers.

Noble and colleagues (2019) synthesized 54 studies of shared reading interventions delivered to preschool or school age students (up to age 7) and reported an even smaller overall effect on children's language development (i.e., g=0.19). Notably, this review focused on studies with greater methodological rigor than some previous reviews, and only studies that included a control group and pre-test assessment were eligible. When studies employed passive control conditions, shared reading appeared to have a modest positive effect; however, when active control groups were the comparison condition, effects were negligible (g=0.03). Importantly, child age, socioeconomic status, intervention duration, and outcome type were not reliable moderators.

Additional guidance on vocabulary instruction during shared reading is suggested by the results of Flack and colleagues' (2018) meta-analysis of 38 studies examining the effects of shared reading on vocabulary outcomes. They found that children aged two through 10 could learn approximately two to five new words through shared reading experiences, with a slightly higher rate of learning for verbs as compared to nouns. Several variables moderated vocabulary learning: use of dialogic reading strategies (i.e., "reader added something to a verbatim text reading"; Flack et al., 2018, p. 10), word occurrences in books (i.e., tokens), and the number of words tested. Story repetitions and word types (e.g., nouns, verbs) may also moderate effects on vocabulary outcomes, but more research is needed to explore these variables.

In addition, researchers have reviewed studies examining the effects of shared reading for subpopulations of students (i.e., students with disabilities, multilingual learners). Boyle and colleagues (2019) synthesized 11 single-case studies in which shared reading was implemented with children with autism. Improvement rate differences (IRD) ranged from 0.28 to 0.95 across four outcome domains (i.e., listening comprehension, expressive communication, participation, and combination), with the largest differences observed for combination (n=17;

IRD=0.95) and listening comprehension outcomes (*n*=16; IRD=0.74), suggesting that shared reading can be an effective intervention to improve language outcomes of children with developmental disabilities.

Reviews focused specifically on multilingual learners also highlight shared reading as an effective instructional practice. Pico and Woods (2023) synthesized 17 experimental studies (14 group designs, 3 single-case designs) of shared reading delivered to Spanish-speaking emergent bilingual students in preschool (64%) or elementary (36%) settings. Most studies (65%) measured vocabulary knowledge, and though some significant effects were reported on researcher-created measures, none were reported for standardized measures of vocabulary. Though few eligible studies measured other oral language outcomes, some evidence of the effect of shared reading on other aspects of oral language was evident. Finally, Zhou and colleagues' (2025) scoping review of 19 studies provides insight into three key mechanisms through which adults support children's learning in both their heritage language and the majority language: bilingual interactions (e.g., translanguaging, parallel bilingual reading, bilingual vocabulary instruction), eliciting responses through prompts and questions, and strategic linguistic choices during reading (e.g., clause complexity and elaboration). Most studies reported positive effects on both receptive and expressive vocabulary outcomes. However, the literature is largely concentrated in Spanish-English contexts and vocabulary outcomes are measured most often, highlighting a need for more research on diverse multilingual populations and measurement of outcomes across oral language domains.

Overall, available evidence suggests that shared reading supports children's oral language development and is particularly supportive of increased knowledge of taught words. However, the magnitude of reported effects is smaller in more rigorous studies with active control conditions and depends on the quality of implementation. For multilingual learners, more intentional language supports, including dual language instructional strategies, have been shown to enhance shared reading.

Language Enhancement Interventions

Effective language enhancement interventions share several characteristics. Results of meta-analyses and systematic reviews suggest that language development is best supported through explicit instruction, or a combination of explicit and implicit instruction, rather than implicit instruction alone (e.g., Christ & Wang, 2011; Frizelle et al., 2021; Goldfeld et al., 2022; Marulis & Neuman, 2010). Interventions in which word meanings are explicitly taught, and children are provided structured opportunities to use targeted words have been reported to produce stronger outcomes than exposure-only approaches (e.g., Loftus-Rattan et al., 2016). It is important to note that children do develop language through both planned and incidental exposure and cycling review of taught words over time is beneficial (Burchinal et al., 2022). Additionally, theme-based and multimethod programs have yielded stronger effects on measures of vocabulary and oral language, likely because these conditions create repeated and contextually connected exposure to vocabulary and support children with developing and deepening their

content knowledge (Burchinal et al., 2022; Christ & Wang, 2011; Goldfeld et al., 2022). This speaks to the cumulative nature of vocabulary learning; as children learn more words, they understand more information, which helps them learn more words (Burchinal et al., 2022).

Beyond explicit instruction and use of thematic units that integrate multiple instructional methods, three other instructional methods show promise: (a) providing opportunities for children to produce language by eliciting responses, (b) increasing variability of language input, and (c) integration of play-based learning opportunities that are connected to literacy objectives. Children demonstrate greater language learning when they are required to retrieve, produce, and apply new vocabulary in multiple contexts, as opposed to passively listening (e.g., Burchinal et al., 2022; Frizelle et al., 2021). Opportunities to engage in conversations using target vocabulary words can be integrated throughout the day so that children have more exposures to each word and opportunities to practice using them in varied contexts (Burchinal et al., 2022). For children with developmental learning disorders, in particular, increasing variability in the presentation of words (e.g., representation of objects) has been shown to decrease the number of word exposures needed to learn a word as compared to provision of a single word exemplar (Aguilar et al., 2018; Frizelle et al., 2021). A varied approach better supports generalization and retention. Lastly, evidence suggests interventions that incorporate play support stronger language growth (e.g., Stagnitti et al., 2016). This may include strategies such as playing with objects that represent or relate to target words and acting out words (e.g., Burchinal et al., 2022) Despite the promise of these instructional components, implementation of comprehensive language interventions that integrates a wide range of instructional components is resource-intensive and has often produced mixed results unless accompanied by strong curricula and robust professional development, including ongoing coaching (Piasta et al., 2022).

Barriers to Implementing Oral Language and Vocabulary Interventions

Although oral language and vocabulary interventions have demonstrated promise for enhancing children's language development, implementing high-quality oral language and vocabulary instruction in preschool settings presents several challenges. Three prominent challenges include: (a) ensuring educators have the knowledge and skills necessary to provide evidence-based oral language and vocabulary instruction, (b) meeting the needs of diverse learners, and (c) embedding a sufficient number of language interactions.

Early childhood educators are expected to support children's development across oral language domains, which requires specialized knowledge. Though preschool teachers recognize their important role in supporting early language development (Weadman et al., 2022), several studies have highlighted shortcomings in teachers' preparation to provide evidence-based oral language instruction (e.g., Piasta et al., 2022; Mathers & Siraj, 2021; Weadman et al., 2022). This is concerning, as preschool teachers' oral language knowledge has been shown to predict instructional quality (Mathers, 2021). Though professional development programs designed to support teachers' adoption of evidence-based practices for oral language instruction are initially effective, positive effects on teachers' knowledge and skills decline over time (Markussen-

Brown et al., 2017; Neuman & Wright, 2010; Weadman et al., 2022). These findings suggest that one burst of professional development may not be sufficiently intensive, and teachers may require ongoing training and coaching to sustain implementation of evidence-based oral language instruction.

It may be also challenging for teachers to navigate the considerable heterogeneity in preschool children's oral language skills. Differences in socioeconomic backgrounds (e.g., Hoff, 2013), in students' access to language-rich experiences, and multilingual learners' varied experiences with learning two languages (e.g., Gutiérrez et al., 2010) contribute to variability in children's language development. As a result, preschool educators must be responsive to a wide range of strengths and needs among students and develop knowledge about differences in language development. Distinguishing between language differences and language impairments can be challenging for educators, particularly when considering multilingual learners, who are at risk of being over- or under-identified with language impairments (Bedore & Peña, 2008). Bilingual children's receptive and expressive language skills often develop differently across languages, with expressive language becoming more dominant in the majority language while receptive language remains more balanced across heritage and majority languages (Giguere & Hoff, 2022). Though the comprehension–production gap is apparent in monolinguals, the gap exceeds that of monolinguals for bilingual children (Giguere & Hoff, 2022). That is, bilingual children's expressive language skills do not reliably predict their receptive language skills in either language, in part due to the complexities of managing two language systems and differences in the number of exposures needed to acquire new vocabulary knowledge in each language domain (Giguere & Hoff, 2022). Consequently, expressive language performance alone may not accurately reflect multilingual learners' language knowledge, and it is necessary to assess children's receptive and expressive language skills in both languages to more accurately characterize their language proficiency. This illustrates just one example of potential variation in children's language development that has implications for assessment and instruction (e.g., providing balanced opportunities for language comprehension and production).

Finally, creating sufficient opportunities to incorporate interactive language practices may be difficult within the logistical constraints of preschool classrooms (e.g., group size). Many features of teacher–child interactions (e.g., multi-turn exchanges, posing open-ended questions, recasting and expanding responses, exposing children to sophisticated language) support children's oral language development (e.g., Cabell et al., 2015; Farrow et al., 2025). However, children's opportunities to engage in conversation with their teacher may be too few during child-centered activities such as free play (Booren et al., 2012), or during whole class instruction if only a few students participate (Hadley et al., 2023). Finding a balance of instructional groupings and activities that promote opportunities for high-quality teacher-child interactions may be challenging for teachers.

Research Question

The purpose of this review is to synthesize evidence pertaining to oral language and vocabulary interventions in preschool settings. In this review, we addressed the following research questions:

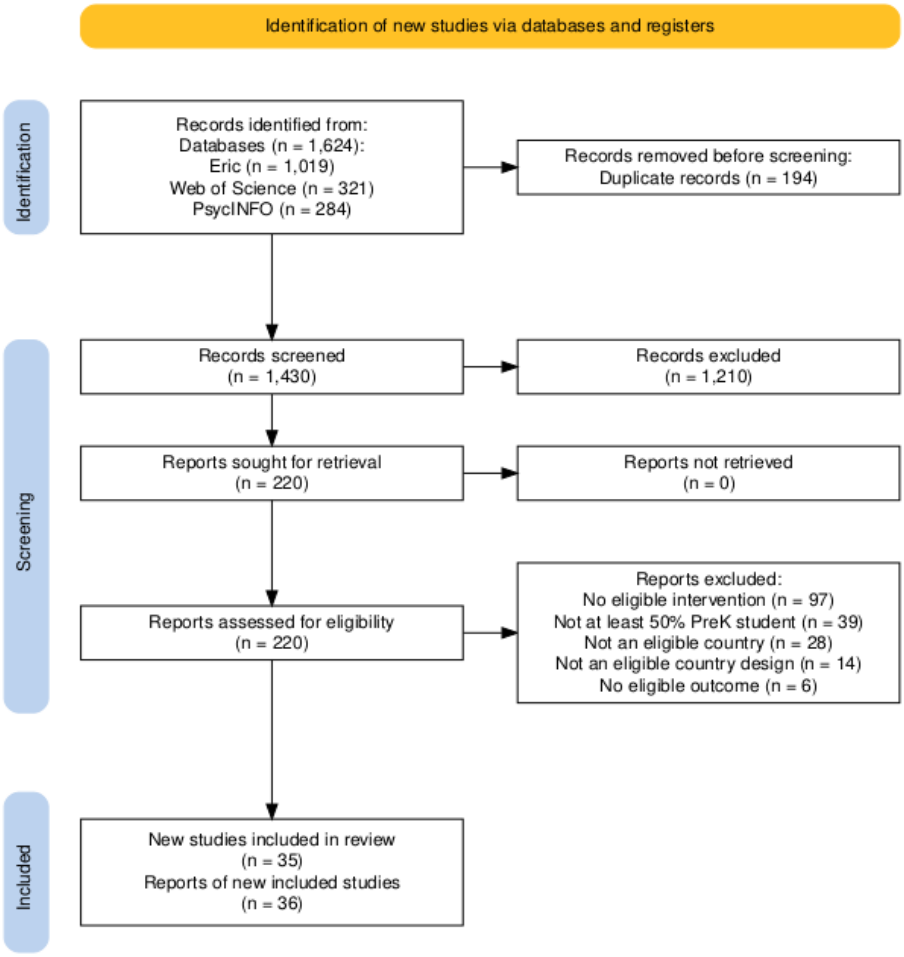
1. What evidence-based instructional practices are effective to support the development of oral language and vocabulary acquisition (as related to literacy) in preschool aged students?
2. What oral language and vocabulary instructional components are associated with improved outcomes? Do these features differ according to student characteristics?

Method

Search Strategy

In consultation with a university librarian, we developed a search string using the EBSCO interface for ERIC. The search string included a combination of key words that we searched via exact subject terms, titles, and abstracts. Key words focused on the population (e.g., preschool teachers), reading domain (e.g., oral language, vocabulary), instructional practices (e.g., teaching, strategy), and research design (e.g., experiment, interviews). We adapted the search syntax according to the requirements of the three databases we searched: ERIC, PsychInfo, and Web of Science. We ran the ERIC search in November 2025 and the PsycInfo and Web of Science searches in December 2025, limiting the results to studies published between January 1, 2018, and December 31, 2025.

Figure 1. PRISMA Diagram (Haddaway et al., 2021)



Screening Procedures and Interrater Agreement

All screening procedures were conducted in alignment with the PRISMA guidelines for systematic reviews (Page et al., 2021) and via the Covidence web platform. Together, the database searches yielded 1,625 records. Following both automated and manual deduplication in Covidence, we screened 1,430 abstracts for eligibility. Of these records, 1,210 abstracts were excluded. We screened 220 full texts for eligibility, and 36 reports were eligible for inclusion. Figure 1 specifies the number of full-text documents eligible for inclusion. However, one study was described in two reports (i.e., a dissertation and a published article), and one report included two interrelated, yet distinct, studies. Therefore, the number of studies included in this review differs from the number of included reports.

A doctoral level research assistant independently double-screened just over 20% of abstracts. Interrater agreement (IRA) was 92.7%. The same research assistant double screened just over 20% of full-texts, and IRA was 91.1%. The primary author and research assistant met to discuss discrepancies and resolved them through consensus.

Inclusion and Exclusion Criteria

We used the same inclusion and exclusion criteria for both the abstract and full-text screening phases, applying five criteria to assess eligibility.

1. *Publication Type/Study Design:* All study designs were eligible to be included, including qualitative studies. We excluded literature syntheses (meta-analysis, systematic review), book chapters, practice guides, and practitioner articles. Technical reports were excluded unless they reported on an experimental study.
2. *Population:* To be included, at least 50% of the student participants had to be preschool aged. In cases in which fewer than 50% of student participants were preschoolers, we also included the study if the authors reported disaggregated results for preschool students.
3. *Language and Study Location:* Studies were included if the article was written in English and conducted in one of the following countries: United States/U.S. and its territories, Canada, Australia, Ireland, New Zealand, United Kingdom.
4. *Instructional Setting:* Studies that were school-based, school, classroom, public school, private school, early childhood center, home, clinic were eligible for inclusion.
5. *Intervention Type:* We included studies that examined the efficacy of an oral language or vocabulary intervention in isolation or as part of a multicomponent instructional package. We defined oral language/vocabulary interventions as those focused on teaching children to comprehend or use spoken language using adult-directed instructional approaches. Though all study designs were eligible for inclusion, we required that the research team actively manipulate oral language and/or vocabulary instruction in some way (e.g., test efficacy of or compare specific oral language or vocabulary practice(s), treatment(s), program(s), or instructional approach(es). Any type of oral language (e.g.,

shared reading/interactive read-alouds, purposeful play, sharing oral stories, modeling rich language, conversations) or vocabulary intervention was eligible for inclusion if conducted within the context of literacy instruction. We included studies that focused on content area vocabulary (e.g., science/social studies) only if in the context of text. Studies focused on vocabulary outside of the context of literacy (e.g., movement vocabulary with a movement-based intervention) were excluded. We included studies focused on developing a non-English language, both a first and second language. Observational studies were excluded even if oral language/vocabulary instruction is the focus of observations (e.g., the researchers examined features of business-as-usual classroom instruction or home literacy environments in relation to student literacy outcomes).Teacher-focused interventions (e.g., PD/coaching) were excluded even if student outcomes were reported. Finally, we excluded secondary analyses of data (e.g., moderator analyses) that did not represent a new evaluation of intervention effects.

6. *Outcome:* Studies were included if they reported results of at least one measure of students' oral language or vocabulary knowledge. Studies reporting only observational language ratings were excluded.

Coding Procedure

The primary author and a doctoral-level research assistant coded all eligible studies in a spreadsheet. Prior to coding independently, the research assistant independently coded a practice article to ensure alignment with the primary author. The remaining studies were each coded by one individual. We extracted information pertaining to the following codes: a) research design, b) participant demographics; c) features of the intervention and its implementation (e.g., setting, dosage, implementer, fidelity), and d) dependent variable(s) and effect size(s). For one study reported in both a published article and dissertation (Wong, 2020; Wong et al., 2021), we referenced both reports during coding. Additionally, we treated and coded the two studies reported by Dickinson, Nesbitt, and colleagues (2019) as separate studies (i.e., Study A, Study B), as each met inclusion criteria. Thus, in subsequent sections, the number of unique studies coded is 36.

We used an inductive approach to dichotomously code (i.e., yes/no) instructional components by each eligible study condition. We read the descriptions authors provided for each condition and added categories for each distinct component. We continued adding instructional components to our coding scheme as we reviewed studies until no additional unique instructional components were described.

Analysis

We developed two tables to synthesize key information about each study and the results. Table 1 includes a summary of each study design, participant characteristics, implementers of instruction, the unit of instructional delivery, and dosage. Table 2 summarizes: (a) each study

design, (b) intervention and comparison conditions, and (c) outcomes and reported effects. We used Excel formulas to calculate frequencies of instructional components used across study conditions and created bar graphs to visualize frequencies.

To synthesize reported effects, we employed a vote counting strategy, coding for the direction of effects as positive (and statistically significant), negative, null, or mixed (Campbell et al., 2020). We indicated mixed effects if the result was mixed at immediate post-test and follow-up or if results were mixed across eligible conditions. We converted initial descriptive coding to analyzable, dichotomous (i.e., yes/no) codes to permit analysis of the reported direction of effects in relation to other key variables (i.e., majority of participants were multilingual learners, standardized and researcher-created measures, subcategories of outcome domains). We used filters in Excel and crosstabs analyses in SPSS to analyze the direction of effects based on multilingual learner status and measure type. We created stacked bar graphs and pie charts to visualize the reported effects across outcome domains, measure types, and reported effects in studies in which more than 50% of participating students were multilingual learners.

Results

Characteristics of Reviewed Studies

Table 1 provides a summary of study designs, implementers, dosage, unit of delivery of instruction, and student characteristics. Study design types included: randomized control trials (*n*=18, 50.0%), quasi-experimental, including one nested within a mixed-methods design, (*n*=4, 11.1%) single-case experimental (*n*=5, 13.9%), within-subjects (*n*=6, 16.7%), crossover (*n*=1, 2.8%), single-case experimental design/crossover hybrid (*n*=1, 2.8%), and SMART/adaptive intervention developmental study (*n*=1, 2.8%). Most tested interventions were researcher-created or researcher-adapted, except for one study in which iPad applications available for purchase were utilized and two studies that used the *Story Friends* curriculum (Kelley et al., 2020; Seven et al., 2020). Interventions were delivered by a range of implementers, including teachers (with or without the support of a teaching assistant, *n*=19, 52.8%), members of the research team (*n*=11, 30.6%), a combination of teaching staff and research team members (*n*=2, 5.6%), parent (*n*=2, 5.6%), teacher and parent (*n*=1, 2.8%), and computer-aided intervention (*n*=1, 2.8%). Interventions were implemented primarily in a combination of whole class, small group, or individual grouping arrangements (*n*=11, 30.6%) or delivered individually only (*n*=11, 30.6%). Grouping arrangements also included small group instruction only (*n*=9, 25.0%), whole class instruction only (*n*=3, 8.3%), or a combination of small group and individualized instruction (*n*=2, 5.6%).

Intervention dosage varied widely across studies, ranging from a single session to year-long programs delivered daily or multiple times per week. Most interventions were implemented over six to 26 weeks and were delivered in two to five sessions per week. The length of sessions ranged from approximately ten minutes to three hours, with most studies reporting intervention sessions lasting 20 to 30 min.

In total, 5,131 preschool-aged students were included across all studies. On average, participants were approximately 4.4 years old. Where available, we dichotomously coded whether children aged three, four, and/or five were included in each study. In studies reporting this information (*k* = 28), 28 (100%) included four-year old children, 20 (71.4%) included five-year old children, and 17 (60.7%) included three-year old children. In nine studies, most children (<50%) were multilingual learners. Though a small percentage of students with disabilities were included in many studies, just three studies focused on students with disabilities. In most studies (63.9%), children were identified as being at-risk due to being economically disadvantaged (e.g., eligible for free-and-reduced price lunch, parent income, qualified for state-funded preschool) or due to academic achievement below expected performance.

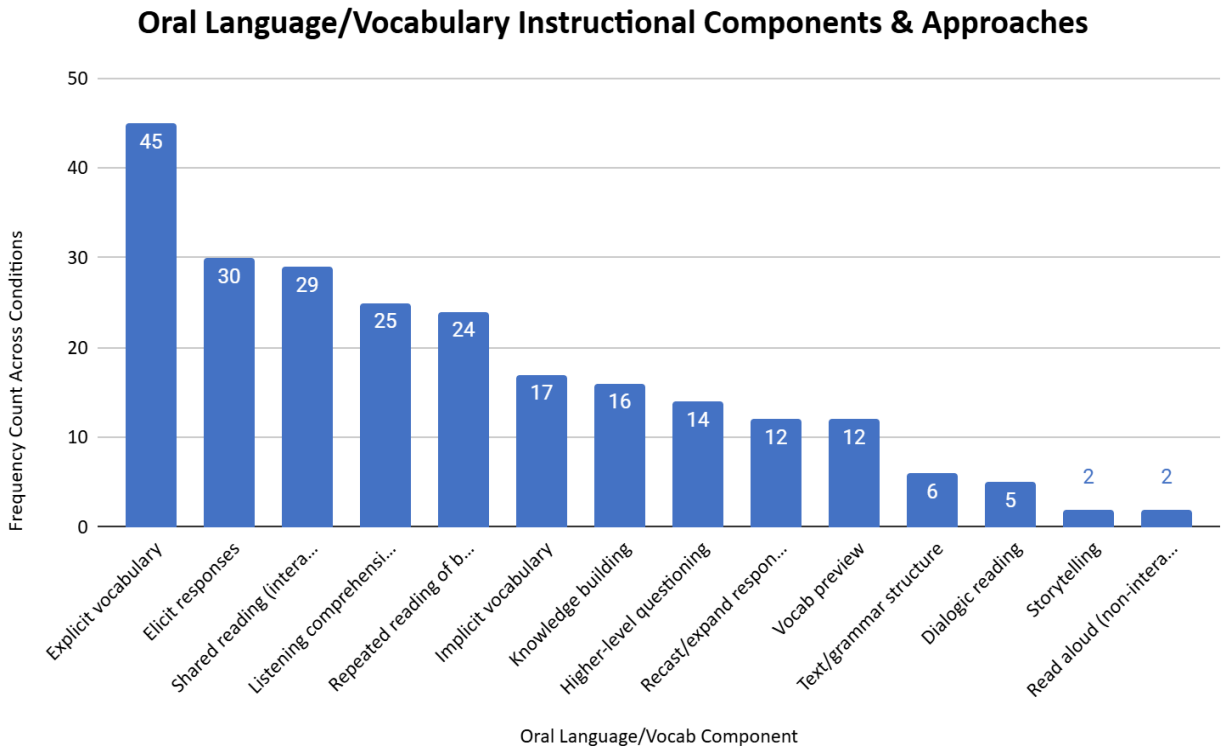
Instructional Components

We coded for oral language and vocabulary instructional components and approaches employed in each eligible intervention condition (*n*=51; see Figure 2). In more than half of

intervention conditions, oral language and vocabulary skills were taught through shared reading (*n*=29), dialogic reading (*n*=5), or non-interactive read-alouds (*n*=2). Often, implementers read selected texts aloud more than one time (*n*=24). In nearly all intervention conditions, selected vocabulary words were taught explicitly (*n*=45); in 31 conditions explicit approaches were used only, and in 14 conditions vocabulary words were taught using both explicit and implicit approaches. In just three conditions, only implicit approaches to vocabulary teaching were used. Additionally, in 12 conditions, implementers previewed vocabulary before reading a selected text (*n*=12).

A range of approaches were utilized to support children with expanding oral language production, including eliciting responses from students through prompts or requests (*n*=30), recasting and expanding students' responses (*n*=12), and storytelling with or without wordless books or props (*n*=2). Several instructional components pertaining to developing listening comprehension skills (e.g., oral retellings, answering comprehension questions) were also embedded (*n*=25). More specifically, intervention conditions focused on building content knowledge (*n*=16), developing higher-order listening comprehension skills via questioning techniques (*n*=14), and teaching text and grammatical structures (*n*=6).

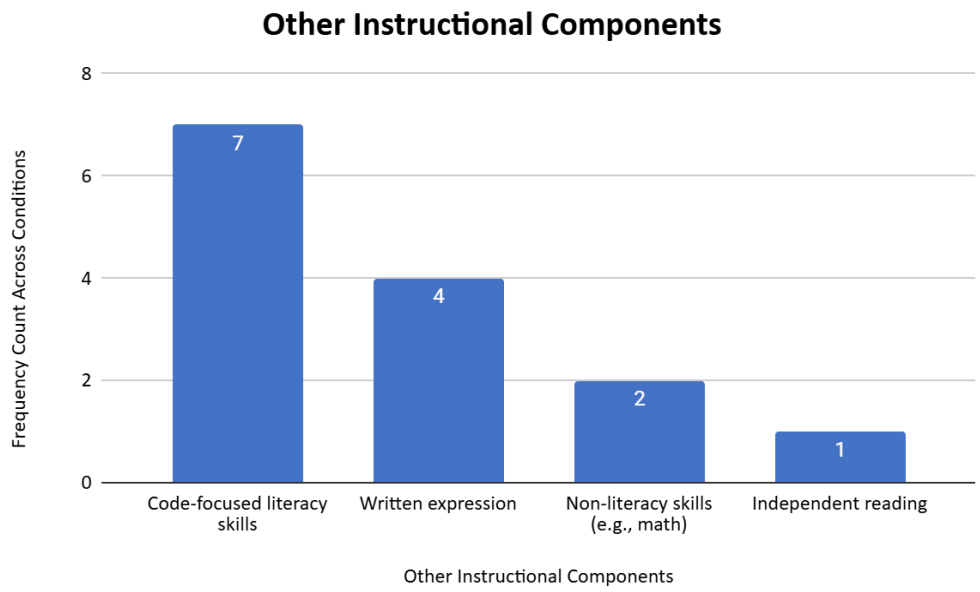
Figure 2. Oral Language/Vocabulary Instructional Components & Approaches



To be eligible for inclusion in this review, all studies incorporated oral language or vocabulary instructional components in the context of literacy. Some studies incorporated additional instructional components (see Figure 3). These included code-focused literacy skills (e.g.,

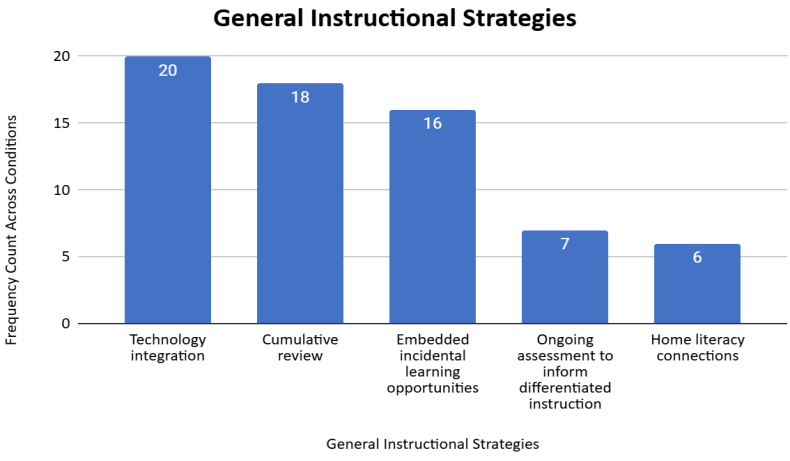
phonological awareness; *n*=7), written expression skills including shared writing (*n*=4), non-literacy skills (e.g., mathematical concepts; *n*=2), and independent reading (*n*=1).

Figure 3. Other Instructional Components



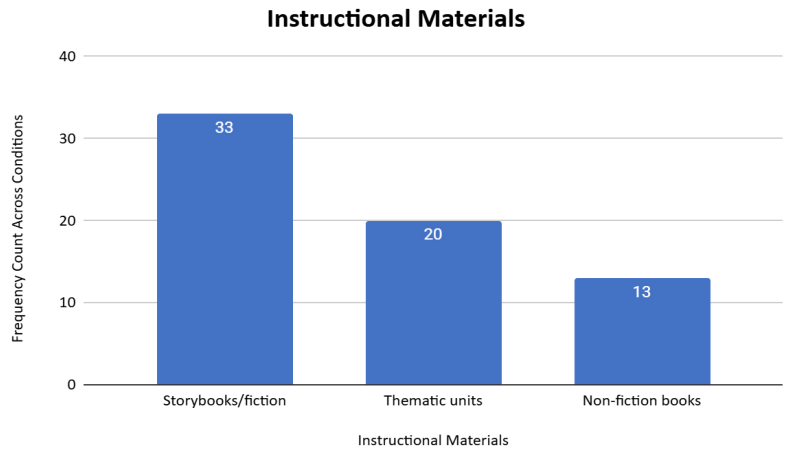
Layered with the oral language and vocabulary instructional components, intervention conditions also embedded several general instructional strategies (see Figure 4). The most used strategies were technology integration, including pre-recorded storybooks or multimedia supports, (*n*=20), cumulative review of taught words or concepts (*n*=18), and embedded incidental learning opportunities across daily activities and content areas, including visual materials posted in the classroom (*n*=16). Fewer studies incorporated ongoing assessment to inform differentiated instruction (*n*=7) or home literacy connections (*n*=6), which we coded separately from studies in which there was a caregiver-implemented intervention.

Figure 4. General Instructional Strategies



For studies in which interactive or non-interactive read-alouds were implemented, we coded for the types of instructional materials used (see Figure 5). Storybooks/fiction texts (*n* = 33) were used more commonly than non-fiction books (*n* = 13). Additionally, in a large portion of intervention conditions, instruction was organized around thematic units or topics (*n* = 20).

Figure 5. Instructional Materials



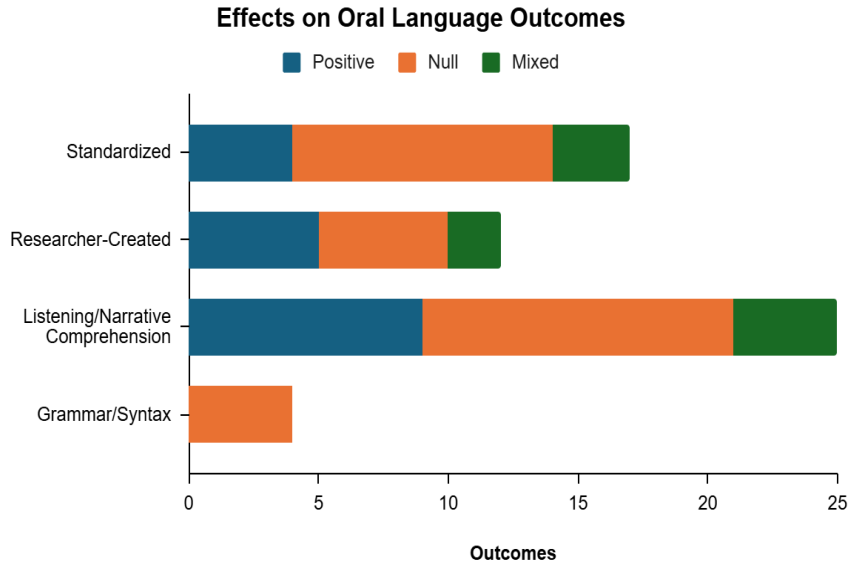
Dependent Variables and Effects

Oral Language Outcomes

Of the eligible studies, eight (22.2%) administered one or more measures of oral language. A total of 29 oral language measures were administered across studies. Seventeen (58.6%) measures were standardized, and 12 (41.4%) were developed by researchers. See Figure 6 for a summary of reported effects on oral language outcomes. Of the 17 standardized measures of oral language administered, positive effects were reported on four measures (23.5%), null effects were reported for 10 measures (58.8%), and mixed effects were reported for three measures (17.6%). Of the 12 researcher-created measures of oral language, five yielded positive effects (41.7%), five yielded null effects (41.7%), and 2 yielded mixed effects (16.7%).

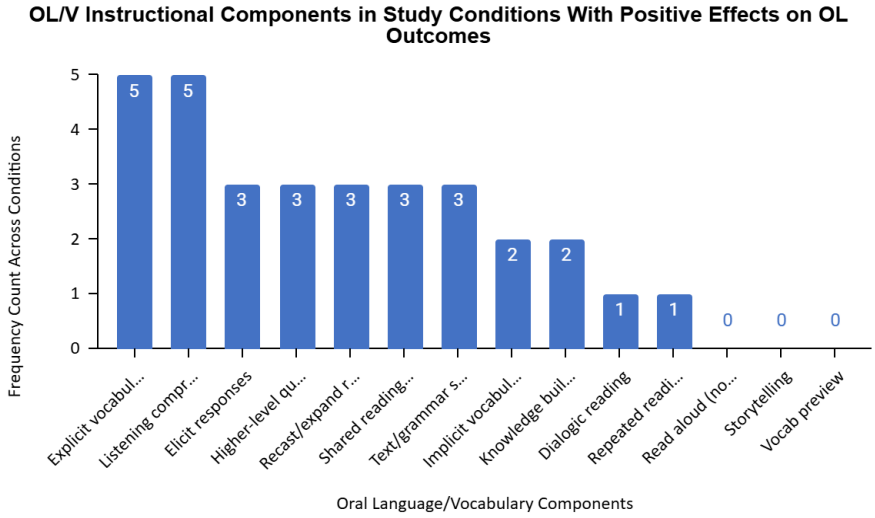
To further examine nuance in reported oral language outcomes, we grouped them into two categories: measures of listening or narrative comprehension (including story retell; *n* = 25) and measures of grammatical abilities (*n* = 4). Of the measures of listening or narrative comprehension, nine (36.0%) yielded positive effects, 12 (48.0%) yielded null effects, and four (16.0%) yielded mixed effects. Null effects were reported for all measures of children's grammatical abilities.

Figure 6. Summary of Effects on Oral Language Outcomes



Frequencies of instructional components included in study conditions in which positive effects were reported on at least one measure of oral language are shown in Figure 7. In all study conditions, explicit vocabulary instruction and listening comprehension activities were incorporated. Additionally, approximately 60% of conditions incorporated strategies to elicit and expand upon children's responses, including asking higher-level, inferential-type questions. Shared reading strategies and instruction in text or grammatical structure were equally as common. Implicit vocabulary instruction, knowledge building, dialogic and repeated reading were used less often.

Figure 7. Oral Language and Vocabulary (OL/V) Instructional Components with Positive Effects on Oral Language (OL) Outcomes



The Language and Reading Research Consortium and colleagues (2022) reported a significant positive effect of the Let's Know! Deep curriculum, which was intended to be delivered 4 days per week over 25 weeks, as compared to a business-as-usual control group (d=0.49; p=.003) on a researcher-created measure of understanding expository text for which children listened to an expository passage and responded to two comprehension questions about the main idea and details. This research team reported significant positive effects resulting from both the comparison of the Let's Know! Deep curriculum to the control group (d=0.77; p<.001) and the Let's Know! Broad condition to the control (d=0.55; p=.003) on a researcher-created measure of comprehension monitoring. Additionally, children in the Let's Know! Deep group outperformed children in the control condition on a researcher-created measure of comprehension of expository text (d=0.49, p=.003). Null results were reported for all other oral language measures, including four standardized measures.

Gray and colleagues (2024) also compared the Teaching Early Literacy and Language [TELL] curriculum, which was delivered to the whole class with some small group instruction over a full school year with planned sessions of three hours four times per week, to a business-as-usual control condition. They reported positive effects at two time points on one of three administered oral language measures: TELL CBM: Expository Book Summary, which is a researcher-created measure of a child's ability to accurately answer questions about an informational passage (Month 3.5, d=0.22, p=.04; Month 7.3, d=0.58, p=.0008). The authors reported null effects for the remaining two measures, one of which was a standardized measure. Similarly, S. Spencer and colleagues (2025) reported positive effects on one researcher-created measure of expressive language at both immediate post-test and follow-up following a small-group intervention focused on communication supporting strategies delivered in 12 sessions over six weeks. Significant positive effects were also reported on a standardized measure of grammatical abilities, but the effect was not maintained at eight-week follow-up.

In the final study, whole class instruction, along with small group Tier 2 instruction with bilingual Spanish/English lessons for qualifying children, in a multicomponent intervention that included shared reading and explicit vocabulary instruction organized within thematic units along with second-language scaffolds, among other components (T. D. Spencer et al., 2020). The intervention yielded significant positive effects on five of the seven oral language measures administered: standardized oral retell measure and a receptive language comprehension of spoken sentences administered in both English and Spanish and a researcher-created measure of story comprehension. Effect sizes for English measures ranged from g=0.49 to 0.85, and from g=0.41 to 0.48 for Spanish measures. The intervention had the largest effect on the English oral retell measure.

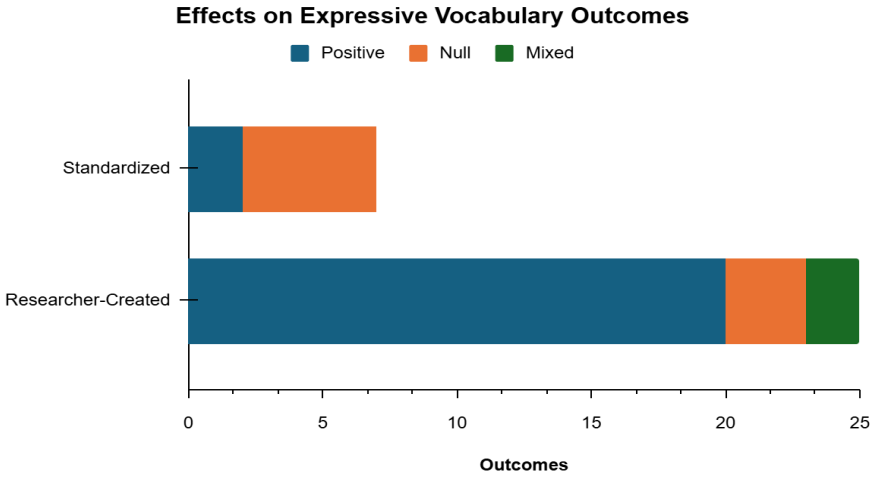
Vocabulary Outcomes

Expressive Vocabulary Outcomes. See Figure 8 for a summary of expressive vocabulary outcomes. Across 24 studies (66.6%), 32 measures of expressive vocabulary knowledge were

administered. Seven measures (21.9%) were standardized and 25 (78.1%) were researcher-created. Positive effects were reported on two (28.6%) standardized measures of expressive vocabulary knowledge and 20 (80.0%) researcher-created measures, often assessing knowledge of instructed words. Mixed effects were reported for two measures (8.0%).

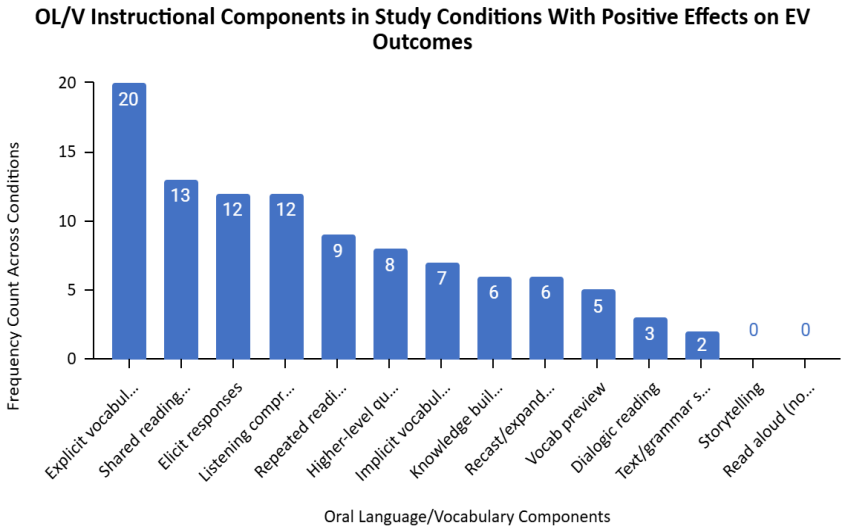
In all studies reporting positive effects on expressive vocabulary outcomes, explicit vocabulary instruction was provided. In most effective studies implementers delivered instruction via interactive shared reading, more so using storybooks than nonfiction texts, and elicited responses from students through prompts and requests. Approximately two-thirds of these studies also incorporated listening comprehension activities (e.g., oral retellings, answering comprehension questions, understanding main idea or details, sequencing) and prioritized building students' content knowledge.

Figure 8. Summary of Effects on Expressive Vocabulary Outcomes



See Figure 9 for a summary of instructional components included in study conditions for which significant positive effects were reported on measures of expressive vocabulary. The most commonly used instructional components were explicit vocabulary instruction (*n*=20), shared reading (*n*=13), eliciting responses with prompts or questions (*n*=12), and listening comprehension activities (*n*=12). Together, this combination of instructional components suggests that opportunities to learn new vocabulary through explicit teaching methods and activities that require productive language (e.g., eliciting responses, listening comprehension activities) support vocabulary learning, particularly of taught words.

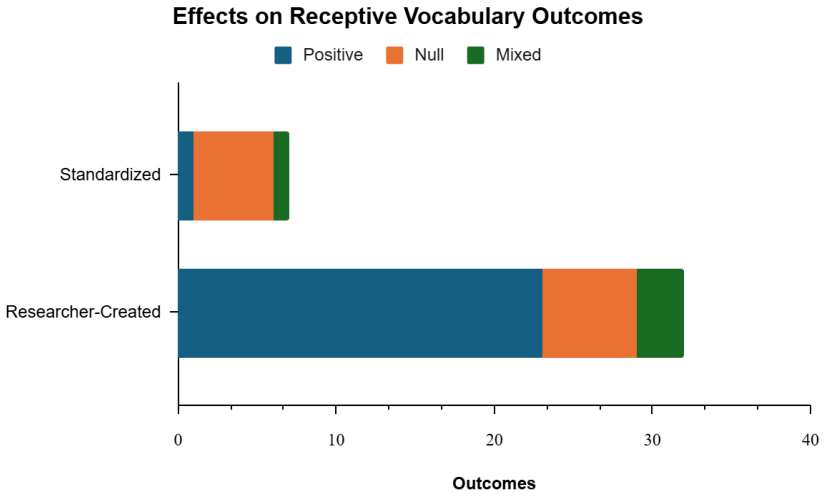
Figure 9. Oral Language and Vocabulary (OL/V) Instructional Components with Positive Effects on Expressive Vocabulary (EV) Outcomes



Receptive Vocabulary Outcomes. See Figure 10 for a summary of receptive vocabulary outcomes. Across 23 studies (63.9%), 39 measures of receptive vocabulary knowledge were administered. Seven measures (19.4%) were standardized and 32 (82.1%) were researcher-created. Positive effects were reported on one (14.3%) standardized measure of expressive vocabulary knowledge and 23 (71.9%) researcher-created measures, often assessing knowledge of instructed words. Additionally, mixed effects were reported for one of seven standardized measures (14.3%) and three of 32 researcher-created measures (9.4%).

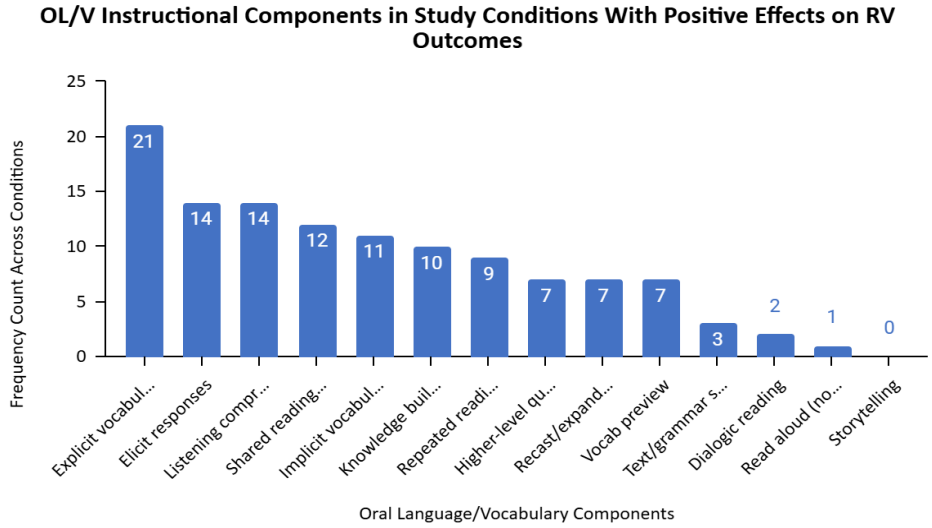
Like patterns observed in instructional components in studies yielding positive effects on expressive vocabulary outcomes, explicit vocabulary instruction was the most common instructional component included in studies reporting positive effects on receptive language outcomes. The most used instructional components used in studies reporting positive effects on receptive vocabulary outcomes also included interactive shared reading, eliciting student responses through prompts and requests, and listening comprehension activities.

Figure 10. Summary of Effects on Receptive Vocabulary Outcomes



See Figure 11 for a summary of instructional components included in study conditions for which significant positive effects were reported on measures of receptive vocabulary. The most commonly used instructional components were explicit vocabulary instruction (*n*=21), eliciting responses (*n*=14), listening comprehension activities (*n*=14), shared reading (*n*=12), implicit vocabulary instruction (*n*=11), knowledge building (*n*=10), and repeated read-alouds (*n*=9). Though the frequencies of instructional components used in studies reporting positive effects on expressive and receptive vocabulary outcomes are similar, there are some notable differences. Shared reading was included less often in studies with positive effects on receptive vocabulary, and implicit vocabulary instruction, knowledge building, and eliciting responses were components that were incorporated more often.

Figure 11. Oral Language and Vocabulary (OL/V) Instructional Components with Positive Effects on Receptive Vocabulary (RV) Outcomes



Direct Comparisons of Approaches to Vocabulary Instruction. Studies in which direct comparisons of instructional approaches (i.e., explicit vs. implicit instruction, play vs. no play) offer insight into practices that yield positive effects on vocabulary outcomes. Kelley and colleagues (2020) compared the Story Friends curriculum, which involved use of prerecorded audiobooks to support explicit vocabulary instruction and home literacy strategies, to a condition in which the same books were read aloud but vocabulary words were not explicitly taught. They reported a large effect (*d*=1.83) favoring the Story Friends condition on a measure of children's depth of expressive vocabulary knowledge of instructed words. Relatedly, a comparison of digital applications designed to support vocabulary development indicated that "scaffolding-like" (I-SL) apps produced stronger effects than open-ended (I-OE) or control applications on researcher-created measures of expressive and receptive vocabulary knowledge of nine iPad functions and mixed effects on two standardized measures of expressive and receptive vocabulary (Vatalaro et al., 2018). On the PPVT-4, children who used the I-SL application improved significantly more than those who used the I-OE application. There was no significant between-group difference on the EVT-2, but children who used the I-SL application improved significantly on this standardized expressive vocabulary measure over time.

Dickinson, Nesbitt, and colleagues' (2019) directly compared word learning of instructed words, exposure words, and control words and reported that both explicit vocabulary instruction yielded stronger effects on depth of expressive vocabulary knowledge of instructed words than exposure words (*d*=0.63) or control words (*d*=1.19). On the receptive vocabulary measure, stronger effects were observed on instructed words as compared to control words (*d*=0.48, *p*<.01), and though they performed better on a measure of instructed words than exposure words, the difference was not statistically significant (*d*=0.19, ns). These findings suggest that exposure may be more effective for supporting receptive vocabulary growth than expressive.

In a second study in which the Story Friends curriculum was implemented, Story Friends was compared to Story Friends+Classwide Vocabulary Review Strategies (CVRS; Seven et al., 2020). Children who participated in the Story Friends+CVRS condition demonstrated stronger growth on a measure of expressive vocabulary knowledge of taught words. Together, the results of these studies indicate that: (a) explicit vocabulary instruction generally outperformed word exposure (i.e., implicit instruction) and (b) repeated exposure to words through review and practice opportunities embedded throughout the day in a variety of contexts yielded additional benefits.

Additionally, in two studies, researchers directly compared effects of explicit vocabulary instruction with and without an integrated play component. LaGamba (2018) compared "rich instruction+more rich instruction" to "rich instruction+play." The play condition involved engaging in pretend play in focused on use of target vocabulary words. Though children who participated in both conditions increased their expressive vocabulary knowledge, children's depth of expressive vocabulary knowledge increased statistically significantly more in the condition incorporating play at both immediate post-test and follow-up (*p*<.01). There was no significant difference observed between groups on a receptive vocabulary measure of taught words,

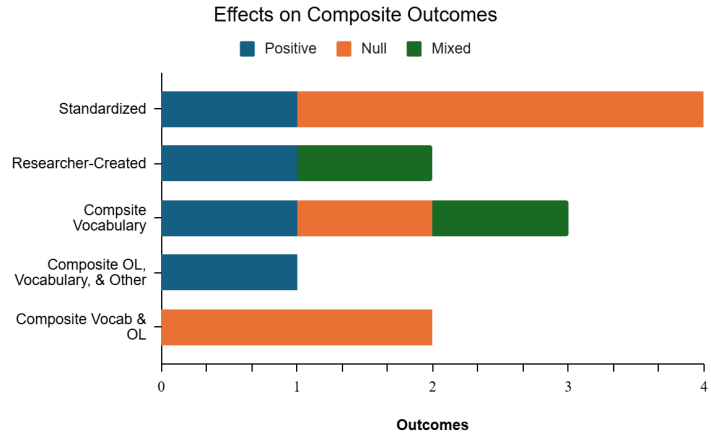
suggesting that the play may have stronger effects on expressive than receptive vocabulary development. Similarly, Lenhart and colleagues (2019) directly compared instructional approaches with and without play incorporated (Say-Tell-Do vs. Say-Tell-Do-Play). The play component involved theme-based play that was related story content delivered via shared reading and focused on use of target vocabulary. Though no significant effects were reported for standardized receptive or expressive vocabulary measures, children in the condition in which play was incorporated performed significantly better on both researcher-created measures of expressive and receptive vocabulary knowledge of taught words at both immediate post-test and follow-up. Notably, children retained more vocabulary words receptively than expressively at follow-up, which may be explained by a decline in structured opportunities to use the taught words.

Composite Outcomes

Across five studies (13.9%), six composite outcomes were administered. See Figure 12 for a summary of effects on composite outcomes. Four composite measures were standardized (66.6%), and two were researcher-created (33.3%). Of the standardized outcomes, positive effects were reported for one measure (25%), and null effects were reported for the remaining three (75%). Reported effects for researcher-created composite measures were either positive (*n*=1; 50%) or mixed (*n*=1, 50%).

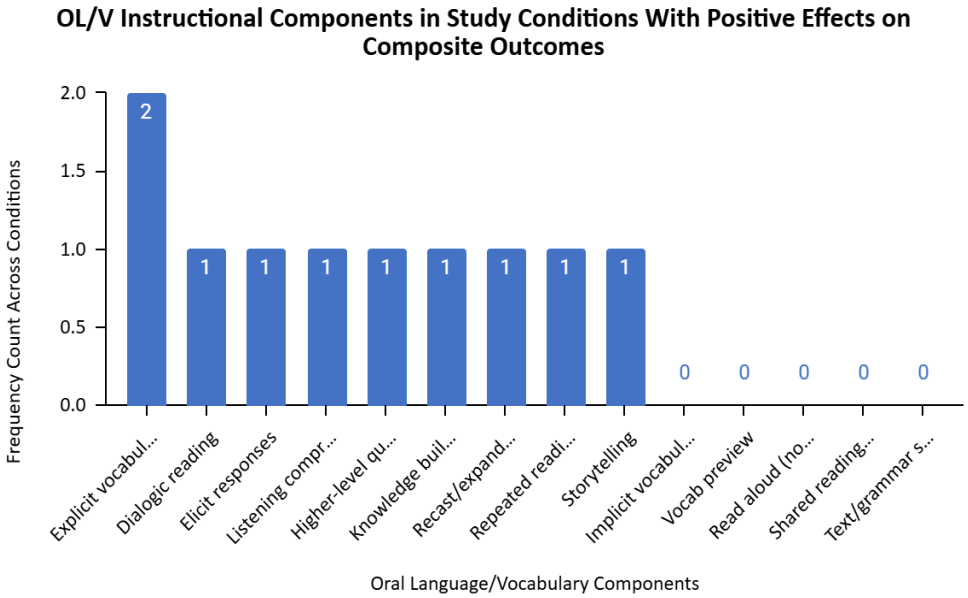
Three of the measures assessed both expressive and receptive vocabulary knowledge (50%), two assessed both vocabulary and oral language domains (33.3%), and one assessed both oral language and word recognition domains (16.7%). Reported effects for composite vocabulary measures were equally positive (*n*=1, 33%), null (*n*=1, 33%), and mixed (*n*=1, 33%). Only null effects were reported for measures on which oral language and vocabulary were both assessed (*n*=2, 100%). A positive effect was reported for the composite measure that crossed both oral language and word recognition domains (*n*=1, 100%).

Figure 12. Summary of Effects on Composite Outcomes



See Figure 13 for a summary of instructional components included in study conditions for which significant positive effects were reported on composite measures. Because so few studies reported positive effects on composite outcomes (*n*=2), few patterns emerge. Explicit vocabulary instruction was an instructional component in both studies (Murdoch et al., 2022; Phillips et al., 2022). Notably, Phillips and colleagues composite measure included both expressive and receptive vocabulary of taught words, which is well-aligned with the explicit vocabulary instruction instructional component. Murdoch and colleagues (2022) also incorporated several other instructional components and administered a measure across word recognition and language comprehension domains (i.e., alphabetic knowledge, vocabulary, oral language, listening comprehension, and phonological awareness).

Figure 13. Oral Language and Vocabulary (OL/V) Instructional Components in Study Conditions with Positive Effects on Composite Outcomes



Subgroup Analysis

Multilingual Learners

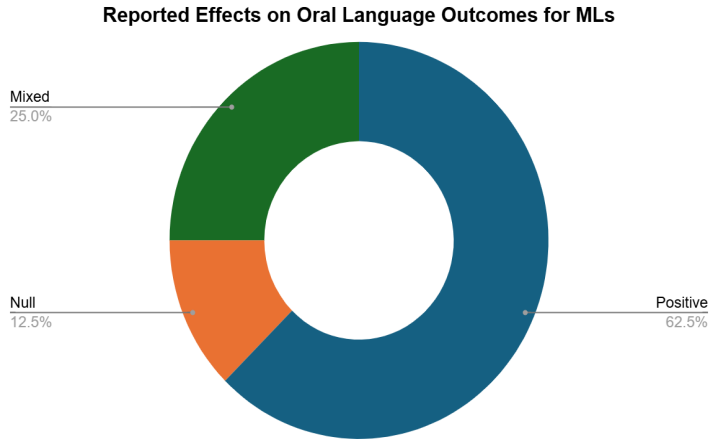
We conducted a subgroup analysis of reported effects in studies in which more than 50% of enrolled children were multilingual learners disaggregated by outcome domain (i.e., oral language, expressive vocabulary, receptive vocabulary, and composite outcomes). In nine studies (25%), the majority of enrolled students were multilingual learners. Across these studies, 37 measures were administered.

Effects on Oral Language and Composite Outcomes. Of the oral language measures (*n*=8; see Figure 14), most reported effects were positive (*n*=5, 62.5%) or mixed (*n*=2, 25.0%), and

one (12.5%) was null (T. D. Spencer et al., 2020). All five positive effects were reported in T. D. Spencer and colleagues' (2020) study of a multicomponent whole class intervention with Spanish/English bilingual instruction provided in Tier 2 for a subset of students (see the Oral Language Outcomes above for more details).

In just one study focused on multilingual learners (Murdoch et al., 2022), a composite measure of alphabetic knowledge, vocabulary, oral language, listening comprehension, and phonological awareness (i.e., Preschool Early Literacy Indicators [PELI]) was administered to assess the effects of Project READY. The curriculum integrates shared reading, various oral language listening comprehension activities, play-based thematic learning, and phonological awareness and letter-sound correspondence instruction delivered through structured whole- and small-group routines. Children assigned to the Project READY condition outperformed the matched low-income control group for both 3-year-olds (*d*=2.15) and 4-year-olds (*d*=1.44). The research team also examined the gap in performance of children who participated in Project READY to a middle-income control group. At post-test, the gap in scores between the two groups was non-significant for 3-year olds, but it remained significant for 4-year olds (*p*=.003).

Figure 14. Reported Effects on Oral Language Outcomes for MLs



Effects on Expressive and Receptive Vocabulary Outcomes. A comparison of reported effects on measures of vocabulary knowledge highlighted substantially different results for expressive vocabulary versus receptive vocabulary measures administered in studies focused on multilingual learners (see Figures 15 and 16). While the majority of reported effects were positive for receptive vocabulary measures (*n*=12; 70.6%), a smaller proportion of reported effects were positive for measures of expressive vocabulary knowledge (*n*=5; 45.0%). In the full subsample of studies that measured vocabulary outcomes, 68.8% reported positive effects on expressive vocabulary outcomes, and 61.5% reported positive effects on receptive vocabulary outcomes. Though a larger portion of expressive vocabulary measures were standardized (21.9% as compared to 19.4% of receptive vocabulary measures), children performed slightly better on expressive language outcomes overall. Thus, the clear divergence between results

reported on receptive and expressive vocabulary outcomes for studies in which the majority of children were multilingual learners is notable.

Dual-Language Instruction. In three studies, dual-language instruction was included as an intervention component. Rivera Pérez and colleagues (2019) compared English-only instruction to dual-language instruction and reported significant results favoring the dual-language condition on measures of both English and Spanish expressive vocabulary knowledge (naming and definitions) in one additional study. Specifically, they compared Spanish-English instruction with audio prompting (SEIG) to an English-only instruction (EIG) and a control group in which no instruction was provided. Both the SIEG and EIG conditions incorporated shared book reading and explicit English vocabulary instruction, but in the SEIG condition the English vocabulary instruction was supplemented with Spanish translations of vocabulary words, sentences, and definitions through an online translation tool accessed on a tablet by the clinician providing instruction. Both treatments produced large and significant improvements on an English vocabulary naming measure as compared to the control group (SEIG *OR*=37.94; EIG *OR*=21.72). Children who were assigned to the SEIG group also demonstrated significant improvements on measures of Spanish vocabulary naming (*OR*=57.45), English vocabulary definitions (*OR*=60.22), and Spanish vocabulary definitions (*OR*=36.20), and maintained these improvements at 6-week follow-up, suggesting that dual-language instruction resulted in greater expressive vocabulary knowledge development and cross-language vocabulary learning.

Two additional studies offer evidence of the efficacy of dual-language instruction for improving students' oral language and receptive vocabulary knowledge (T. D. Spencer et al., 2019, 2020). Relative to Rivera Pérez and colleagues' (2019) study, these studies employed more intensive dual language instruction in which the language of instruction rotated across days of instruction, rather than providing translations during English instruction, in addition to integration of other supports for multilingual learners (e.g., dual language books). In the 2019 study, which included 24 lessons total, positive effects were reported for proximal measures of receptive vocabulary only, though expressive vocabulary was not measured. In contrast, T. D. Spencer and colleagues (2020) implemented the dual-language intervention (Puente de Cuentos - "Bridge Made of Stories") over 24-30 weeks. Children received whole class English instruction, along with a Tier 2 intervention in which the language of instruction (Spanish-English) rotated daily with additional supports for multilingual learners incorporated (e.g., dual language books, language scaffolds). A business-as-usual control in which the language of instruction was English served as the comparison condition. This was the only study focused on multilingual learners in which measures of oral language were administered, and positive effects were reported on five of the eight oral language outcomes (i.e., oral retell Spanish/English, story comprehension, sentence structure Spanish/English). Positive effects were also observed on five of six receptive language measures, but no positive effects were reported for expressive language outcomes (n = 2). Results of these studies suggest that supporting children's development of their L1 supports development of their L2.

Figure 15. Reported Effects on Expressive Vocabulary Outcomes for MLs

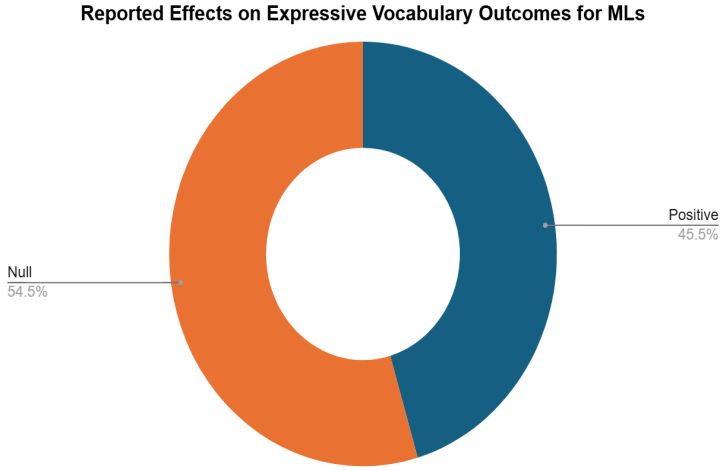
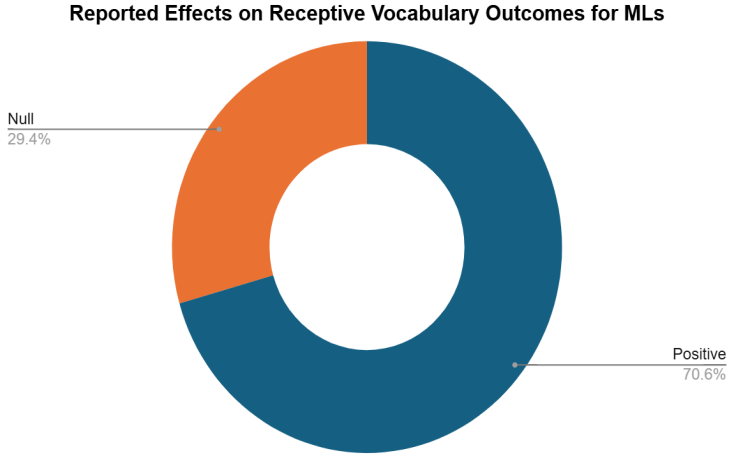
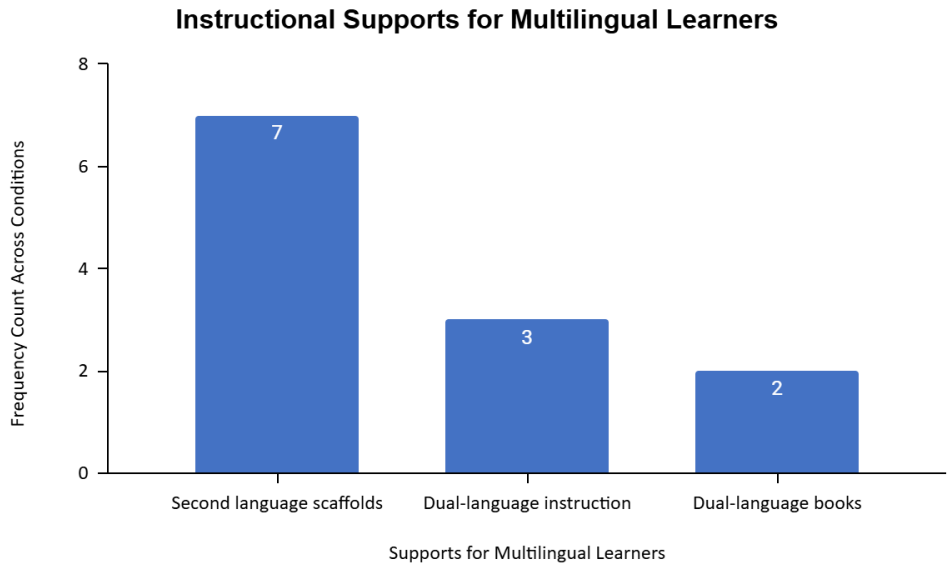


Figure 16. Reported Effects on Receptive Vocabulary Outcomes for MLs



In this subset of studies, instructional supports specifically designed to support multilingual learners were also embedded. See Figure 17 for a summary of these instructional components. We coded for three types of instructional supports: second language scaffolds (e.g., use of sentence starters, online translation tool accessed on a tablet), use of matching texts in two languages, and dual-language instruction. Use of second language scaffolds were used with high frequency across studies, and dual-language instruction (*n*=3) and books (*n*=2) were used less often. Within this subset of studies, just one study (T. D. Spencer et al., 2020) incorporated all three instructional supports for multilingual learners, and they reported the largest number of positive effects on measures of oral language and receptive vocabulary for multilingual learners.

Figure 17. Instructional Supports for Multilingual Learners



Students with Disabilities

Of the included studies, 11 (30.6%) reportedly included some children identified with disabilities. However, few studies (*n*=3) focused on the population of preschool children with disabilities (Boyle et al., 2021; Fleury & Towson, 2021; Wilcox et al., 2020). Due to the low number of studies focused on students with disabilities, we summarize results across all measured outcome domains together. Two studies centered on children with developmental disabilities (*n*=6, Boyle et al., 2021; *n*=10, Fleury & Towson, 2021), and one focused on children with developmental speech and/or language impairments (*n*=289; Wilcox et al., 2020). Boyle and colleagues (2021) tested the effects of shared reading interactive ebooks (transition to literacy feature) facilitated by a researcher with small groups of one focal student with a developmental disability and a typically developing peer on students' single-word reading and receptive vocabulary knowledge of instructed words. Six children (*M* age=4.5) were the focal participants of the study. Results indicated students learned 73% of instructed words, on average (*Tau-U*=.94). Similarly, Fleury and Towson (2021) implemented a shared book reading intervention with children with autism spectrum disorder (*n*=10; *M* age=4.3). Children participated in small-group dialogic reading instruction and 4 weeks (early decision) or 8 weeks (late decision) after the intervention began, children requiring additional support were identified and placed in either an individualized (1:1) dialogic reading intervention or modified dialogic reading intervention (i.e., visual vocabulary supports, eliciting responses using target vocabulary words, and a least-to-most prompting hierarchy for error correction. They reported null results on their researcher-created measure of expressive vocabulary knowledge of taught words, as children's rate of acquisition of new vocabulary knowledge was low, and meaningful changes were not observed across levels or conditions.

In a larger, randomized-control trial, Wilcox and colleagues (2020) examined the effects of the Teaching Early Literacy and Language (TELL) curriculum as compared to business-as-usual instruction for 289 children (*M* age=4.4) with developmental speech and/or language impairments. Specifically, 43.9% had a speech impairment and 56.1% had language or speech and language impairments. The TELL curriculum is multicomponent and delivered in a whole-class setting with some embedded small group instruction designed to be implemented over 34 weeks. It focuses on developing students' oral language skills and vocabulary knowledge through both explicit instruction and incidental exposure. Instruction is delivered via 14 thematic units that highlight both fiction and nonfiction texts. No significant effects were observed on standardized measures of language or vocabulary (i.e., Clinical Evaluation of Language Fundamentals-Preschool 2nd Edition [CELF-P2] or Test of Preschool Early Literacy [TOPEL]). In contrast, significant and positive effects were reported at both timepoints (fall, spring) on researcher-created measures of expressive and receptive vocabulary knowledge of instructed words. Notably, reported effect sizes were larger for the expressive vocabulary measure for both the fall (Cohen's f^2=.18) and spring (Cohen's f^2=.44) administrations than for the receptive vocabulary measure (Cohen's f^2=.02).

Discussion

The purpose of this review was to identify evidence-based instructional practices that support oral language and vocabulary development in preschool-aged children within the context of literacy instruction. We identified 36 eligible studies. Results of this narrative synthesis are consistent with those of prior reviews of oral language and vocabulary interventions (including shared reading), indicating that vocabulary outcomes, particularly those measuring taught words, are more malleable than those measuring oral language or general vocabulary knowledge. Additionally, instructional components used in studies reporting positive effects on one or more outcomes align with those reported in prior syntheses, with explicit vocabulary instruction, shared reading, and interactive language activities (e.g., eliciting responses) being most frequently utilized.

Discussion of Component Effectiveness

Across outcome domains, explicit vocabulary instruction emerged as the most consistently used instructional component in effective interventions. Nearly all intervention conditions that produced positive effects oral language, expressive vocabulary, and/or receptive vocabulary outcomes incorporated direct teaching of word meanings (e.g., definitions, talking about words, use of visuals). This finding aligns with prior syntheses, which have reported explicit vocabulary instruction supports language development more than word exposure only (Christ & Wang, 2011; Frizelle et al., 2021; Goldfeld et al., 2022; Marulis & Neuman, 2010). Notably, implicit vocabulary instruction was included more frequently in studies producing positive effects on receptive language outcomes than expressive outcomes, reinforcing that incidental learning also contributes to children's oral language development.

In approximately half of studies reporting positive effects, words were taught in the contexts of books during shared reading. As reported in prior reviews (Flack et al., 2018; Mol et al., 2009; NELP, 2008), this synthesis also supports the utility of shared reading for supporting language development. However, shared reading sessions were often supplemented with other instructional components. Together, the results of included studies indicate that integration of additional instructional components, such as embedding opportunities for additional teaching and review throughout the day (Seven et al., 2020), play-based opportunities that are connected to literacy objectives (e.g., Dickinson, Collins, et al., 2019), and supports for multilingual learners including dual-language instruction (e.g., T. D. et al., 2020) can enhance the effects of shared reading.

Another category of instructional approaches common to nearly all effective interventions includes those requiring children to produce language. Positive effects were reported in several studies in which responses were elicited from students through open-ended questioning (including retelling stories), teacher prompting, and to a slightly lesser degree, recasting and expanding children's responses. This is unsurprising considering that oral language skills are developed across both receptive and expressive language domains, and passive exposure is not sufficient to support development of both domains (e.g., Snow, 2016); children must have opportunities to produce language. From the perspective of the SOLAR framework and Language House schema (Snow, 2021), intentional balancing of opportunities to build language comprehension and production contribute to the language-rich instructional environments that best support children's language development.

Finally, providing oral language instruction within thematic units, including building content knowledge, were also commonly used instructional components in effective interventions. Many interventions organized instruction around high-interest themes; this was apparent in all studies reporting positive effects on oral language outcomes and approximately half of interventions for which positive effects on vocabulary outcomes were reported. Vocabulary development becomes increasingly efficient as children expand their vocabulary and deepen knowledge of the links between semantically-related words (Burchinal et al., 2017), and thematic units offer a valuable context for repeated exposures to related concepts and vocabulary.

Despite the substantial number of studies reporting positive effects on vocabulary outcomes, few positive effects were observed on broader oral language outcomes. Positive effects were reported for some measures of listening comprehension and narrative abilities, but null effects were reported for all measures of grammatical abilities and most standardized oral language measures. These results are not unexpected, as growth on broad oral language outcomes has historically been slower and more difficult to influence, emphasizing that there is no "quick fix" to supporting children in developing the language skills they need to support their success in formal schooling (Haley et al., 2016).

Implications for Practice

Several implications for practice emerged from this review. Overall, results of studies included in this corpus indicate explicit vocabulary instruction accelerates word learning most, but they also offer evidence of the supplemental contributions of incidental exposure to word learning, particularly in the receptive language domain (e.g., Dickinson, Nesbitt, et al., 2019). Though shared reading was the primary method through which vocabulary words were introduced across these studies, children also learned new words through technology-aided instruction (e.g., structured iPad applications, participatory and expository video clips). Educators should consider embedding explicit vocabulary routines within daily literacy activities rather than relying solely on shared reading sessions, as repeated exposure to words and integration of review within various classroom routines is beneficial (e.g., Seven et al., 2020). Further, cumulative review, use of thematic units (Burchinal et al., 2022), and integration of play (e.g., Lenhart et al., 2019) that is connected to literacy objectives increase children's word exposures and opportunities to use new words. Across all of these instructional approaches, a high priority should be placed on providing opportunities for students to produce language (e.g., asking open-ended questions, eliciting responses, recasting and expanding responses). These practices provide children with opportunities to practice productive language skills, which is important for expressive vocabulary development. Passive learning and word exposure alone are not sufficiently intensive approaches to support meaningful vocabulary growth. Lastly, multilingual learners may develop oral language and vocabulary skills at a faster rate in both their heritage language and the majority language when teachers use multiple supports together such as dual-language instruction, use of bilingual books, and second-language scaffolds (e.g., sentence structures), as compared to using just one of these supports in isolation (e.g., T. D. Spencer et al., 2020).

Limitations

The results of this review should be interpreted with several limitations in mind. Though we used rigorous procedures to develop a database search string in collaboration with a university librarian, we identified studies for inclusion in this review from database searches only without using supplemental search methods (e.g., ancestral searching). Thus, it is possible that there are eligible studies that were not captured through our database search. Additionally, we used vote counting based on the direction of reported effects as a primary method of synthesizing study effects. Vote counting is a useful tool for synthesizing studies without meta-analysis, but it is not the most precise method for evidence synthesis due to the lack of consideration of the sample sizes of studies and the quality of evidence provided in each study. Finally, though it could be useful for understanding study results, we did not conduct a fine-grained analysis of the reported dosage of each study (e.g., number of taught words, number of books read to children) in relation to reported effects. Additionally, our interpretation of effective instructional components is limited by our emphasis on strategies that were used most frequently in studies reporting positive outcomes; it is possible that some strategies that appeared infrequently in the literature may also be effective.

Future Research

Several priorities for future research emerged from this review. We identified a limited number of studies focused on oral language and vocabulary development of students with disabilities, and no studies that focused on multilingual learners with disabilities. Further, studies of oral language instruction for multilingual learners focused on Spanish as the L1, limiting the generalizability of findings to children from other linguistic backgrounds (including bidialectal students).

The focus of studies included in this corpus varied, with some evaluating multicomponent approaches to oral language and vocabulary instruction and others isolating individual instructional approaches. Future reviews could build on this synthesis by conducting fine-grained analyses of instructional components associated with positive outcomes. For example, examining specific aspects of explicit vocabulary instruction, such as the number and type of words taught, use of gestures and visual supports, the optimal frequency and spacing of word exposures, and frequency of opportunities for retrieval and production, may help identify the conditions under which vocabulary interventions are most optimal.

Identification of approaches that meaningfully improve oral language outcomes are also an area requiring further exploration. Although researchers frequently reported positive effects on proximal vocabulary measures, most oral language measures yielded null results. Accelerating development of broad oral language skills development may require different or more intensive instructional approaches or assessments, more time, or assessments that are sensitive enough to capture incremental progress.

Conclusion

Overall, the findings of this narrative synthesis suggest that children's vocabulary knowledge accelerates with intervention. Positive effects were reported frequently on both expressive and receptive vocabulary outcomes, especially when interventions incorporated explicit vocabulary instruction, interactive shared reading, opportunities for oral language production, and repeated exposure to target words. In contrast, effects on broader oral language outcomes were less consistent, with few studies yielding positive results. Additional research is needed to determine the features of oral language instruction can more effectively support the development of broad oral language skills and to support preschool teachers with implementing these evidence-based practices in business-as-usual settings. Given the critical role of language development from ages zero to five as the foundation of later conventional literacy skills (NELP, 2008; Snow, 2020), improving the quality and efficacy of oral language and vocabulary instruction in preschool settings remains a critical priority.

Table 1

Study Characteristics

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
Boyle et al. (2021)	SCD	6 children with developmental disabilities (+6 typically developing peer partners), *M* age=4.5 years; 4 females, 2 males	researcher	dyads with an adult (1 focal participant, 1 typically developing peer)	65 min total intervention time on average; e-book reading with each dyad M=2.1 times per week (range: 1–3); M=5 min duration (range: 4–6 min).
Dennis & Whalon (2021)	SCD	6 children with below average scores on the Total Language Scale; *M* age=4.6 years; 3 females, 3 males	researcher	individual	Instructional targets taught over 4 days, 30-min sessions in each condition counterbalanced and 30 min apart; 8 weeks (i.e., eight books per condition with three target words per book) resulting in 24 words in each condition or a total of 48 words) for 3 students; 7 weeks of intervention for a total of 42 words for 3 students

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
Derby et al. (2022)	Crossover	2 children attending a dual-language early childhood center (English dominant language for all participants), *M* age=4 years; 1 female, 1 male	parent	individual	two 6-week intervention periods with a 2-week mid-intervention break, parents were asked to read a book aloud three times per week (in English, te reo Maori, or both), and complete additional activities (e.g., songs, games, conversation)
Dickinson, Collins, et al. (2019)	RCT	227 children; 5-10.7% of students across conditions were MLs; students with ID/IDD or visual/hearing impairments were excluded, all students were from low-income backgrounds; *M* age = 4.3 in Fall, 4.75 in Spring; 52% female	teacher	whole class and small group	Read Only (RO): 4 teacher read-aloud sessions Read+Play (R+P): 4 read-alouds+3 structured play sessions
Dickinson, Nesbitt, et al. (2019) - Study A	RCT	226 children from centers serving high-risk children from low-income families, 34 MLs, *M* age=4.78; 106 males	researcher - intervention specialists	small group	approximately six-week study period, 2 books per child, books read on four consecutive days (approximately 10 min reading+10-minute play with props), each book was read four times; 48 total target words

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
Dickinson, Nesbitt, et al. (2019) - Study B	Within subjects	84 children from centers serving high-risk children from low-income families, 14 MLs, *M* age=4.89; 49 males	researcher - intervention specialists	small group	approximately two-month study period; 2 books per child, books read on four consecutive days (approximately 10-minute reading+10-minute play with props), each book was read four times; 16-18 total target words
Dillon (2021)	SCD	4 children, 1 ML, *M* age=3.5, 1 female, 3 males	teacher	individual	14 weeks total including baseline phase, one book was read each day of the week
Fleury & Towson (2021)	Pilot sequential multiple-assignment randomized trial (SMART) / adaptive intervention developmental study	10 children with autism spectrum disorder (ASD) who were required to routinely use phrases of 3 or more words in English; *M* age=4.32; 2 females, 8 males	teacher	Stage 1: small group Stage 2: individual	20 weeks total; Stage 1: 4 or 8 weeks, 4 readings/week; Stage 2 continued for remaining 16 or 12 weeks

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
Gonzalez et al. (2024)	RCT	298 children, 95.6% received free or reduced lunch, 74.4% reported an annual income <$24,000, 100% MLs, 2 students with disabilities, *M* age=4.61, 154 females, 144 males	teacher	small group	18 weeks, 5-day instructional cycles, 20 min per day
Gray et al. (2024)	RCT	324 children; focused on children with low-SES backgrounds; children had varying levels of English proficiency (English assessments used only); 178 females, 146 males	teacher	whole class and small group	TELL was developed for delivery 3 hours per day 4 or 5 days per week, average 173 days (133 implemented for Cohort 3)
Hopkins et al. (2022)	QED (Mixed Methods)	123 children attending schools in areas with low socio-economic status and above average % of students qualified for free-or-reduced lunch programs, 7 MLs, 6 students with disabilities, 4-5 years old	teacher, associate, student SLTs	whole class	10 weeks, 20 min explicit instruction at the beginning and end of the week and activities (e.g., videos, song, unstructured play) throughout the week

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
Kelley et al. (2020)	RCT	84 at-risk children, 3 students with disabilities, *M* age=4.5, 41 females, 43 males	teacher and other educational staff as facilitator (pre-recorded audiobooks); parent (home literacy materials)	small group	13 weeks, 15-min lessons, intended dosage 3 listens per instructional book (3 books per unit) and 3 listens per review book per unit
LaGamba (2018)	Within subjects	28 children, 1 student with a disability, *M* age=4.3; 15 females, 13 males	teacher	whole class and small group	3 10-day instructional cycles (one read-aloud text and six words per cycle); 297 min total Rich Instruction+Rich Instruction: 13 minutes of practice (9 minutes whole-group and 4 minutes small-group) Rich Instruction+Playful Interaction: 13 minutes of practice (9 minutes of whole-group rich instruction and 4 minutes of playful scenarios in small groups)

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
Language and Reading Research Consortium et al. (2022)	RCT	689 total children, 361 of whom were preschool-aged; 28 students with disabilities; 97% reported English as primary home language; *M* age=4.5; 186 females	teacher	whole class	intended dosage 25 weeks, four 30-min lessons per week; Let's Know! Broad condition *M*=81% of lessons implemented (range: 12-99%); Let's Know! Deep Condition *M*=69% (range: 14-100%)
Lenhart et al. (2019)	SCD/Crossover	18 children, 5 MLs, *M* age=4.4; 13 females, 5 males	teacher, teaching assistant	small group	8 weeks (4 weeks of in each condition, crossover at week 4)

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
Murdoch et al. (2022)	QED	79 children, 100% of students in the implementation and matched control conditions were experiencing poverty (0% of students in the economically advantaged control were experiencing poverty); 60% of students in the implementation school were MLs and 45% in the matched control (0% in the economically advantaged control); *M* age (Implementation School)=4.2, *M age* (Matched Control)=4.5, *M age* (Economically-Advantaged Control)=4.4; 32 females, 47 males	teacher, teaching assistant	whole class and small group	16 weeks, 90 min each morning

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
Phillips et al. (2022)	Within subjects	192 children; focused on preschools serving children from lower-income backgrounds; *M* age=4.3; 98 males	teacher, teaching assistant	Primarily whole class, and split the class in 2 equal groups for the second half of the lesson to play interactive games (one led by teacher, one led by aide)	16 week-long units, daily 30-min lessons (15-min whole group, 15-min in two smaller groups)
Pollard-Durodola et al. (2018)	RCT	281 children; 100% MLs in the initial stages of English language development; 79.6% of families reported annual family income <$24,000; *M* age=4.6; 49.3% female, 50.7% male,	teacher	small group	18 weeks, 20 min per day

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
Powell et al. (2026)	RCT (Randomized waitlist control)	654 children; 2.4% of children identified with disabilities; all children qualified for preschool attendance due to at-risk status; *M* age=4.6 years; 52.9% female; 47.1% male Note: individual demographic data not available for approximately 63% of participants	teacher	whole class	12 weeks, 14 books (encouraged to use 12 in any order), teachers read the same book at least three times each week, approximate total of 45 min per book (about 20 min, 15 min, and 10 min for the first, second, and third days, respectively)
Read et al. (2019)	RCT	60 children; some children spoke languages other than English at home, but all were learning English as their primary language; *M* age=3.9; 28 females, 32 males	researcher	individual	25 min per participant

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
Riordan et al. (2022)	RCT	69 children; English was the primary language at home for all but 1 child, and 4 parents reported speaking another language to their child; 17.4% of parents reported low SES or unemployment; 29 females, 37 males	parent	individual	6 weeks, 12 books (2 per week)
Rivera Pérez et al. (2019)	RCT (randomized block design)	43 children; 100% MLs (Spanish-speaking), 100% from low socio-economic status (SES) backgrounds (free and reduced-price lunch as indicator); *M* age=4.3; 26 females, 17 males	researcher	small group and individual activities	four words per week for 6 weeks; words were Tier 2 vocabulary from children's books; 6 weeks; 35-min sessions, 2x/week; total planned dosage = 12 sessions / about 7 hours
Rogowsky et al. (2018)	RCT	47 children; 18.2% had annual family income <$100,000; *M* age=4.4; 26 females, 21 males	CAI	individual	participants in the computer-assisted group engaged with CAI for 10 minutes each day across the 11 consecutive weeks of the intervention

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
Samudra et al. (2019)	RCT	131 children; all children qualified for free-and-reduced price lunch; *M* age=4.53; 62 females, 69 males	researcher	individual	single session exposure (4-min video) with variation in repetition schedule; spaced group included ~1-hour intervals; total exposure: 1 viewing (~4 min) or 3 viewings (~12 min total)
Scott et al. (2025)	Within subjects	183 children; all spoke English, but 25% reported a language other than English was spoken at home; all met income requirements for state-funded preschool; *M* age=4.2; 74 females	teacher	whole class and small group	four, 4-week curriculum units implemented over the course of the year (one shared book reading session and one play session per week within each unit); each unit taught 20 new target words (for a total of 80 words taught)

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
Seven et al. (2020)	SCD	23 children; 2 students had diagnosed disabilities (1 with cerebral palsy, one NOS) and all students characterized as having limited oral language skills and being at risk for reading difficulties; 4 children language other than English at home; 6 students had qualifying scores for a low SES classification; *M* age=4.5; 13 females, 10 males	teacher (animated listening sessions facilitated by teacher)	Story Friends: small group Classwide Vocabulary Review Strategies (CVRS): whole class	Story Friends: <40-min in small groups per week; 3 small-group listening sessions per week during which children listened to each book three times throughout the week (1 introductory book and 8 instructional books; four Tier 2 vocabulary words selected per book); Story Friends prerecorded audio included four target vocabulary words (10-12 min) CVRS: embedded throughout the week (e.g., text reminders to use words in classroom conversations, word cards, weekly word chart)

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
S. Spencer et al. (2025)	QED	118 children; 40 MLs; selected students with language skills below expected development; all school had above average rates of students eligible for free-and-reduced price lunch as compared to England average; *M* age=5.0 (77% preschool); 60 females, 58 males	researcher - trained interventionist, SLT trainees	small group	12 sessions over 6 weeks (2x/week, 30–45 min each) ~9 hours total intervention

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
T. D. Spencer et al. (2020)	RCT	81 children; 100% MLs (Spanish-speaking); selected students who could benefit from Tier 2 oral language intervention based on pre-assessment measures; 74% of the treatment group parents and 79% of the control group parents reported annual household income <$22,000; *M* age (treatment)=4.2 years; *M* age (Control)=4.1 years	teacher	whole class (English lessons for all children) and small group (Tier 2 instruction, Spanish/English lessons for qualifying children)	school year; 3 units lasting 8–10 weeks each; Typical week: 2 English large-group lessons, 2 Spanish small-group lessons, and 2 English small-group lessons
T. D. Spencer et al. (2019)	SCD	8 children; 100% MLs (87.5% children with Spanish as primary language); all children came from low-income backgrounds; *M* age=4.4; 4 females, 4 males	researcher and teacher	small group	4 days per week, 20-25 min, 24 lessons total

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
Vatalaro et al. (2018)	QED	63 children; 9 reported a non-English language only was spoken at home, 19 reported mainly other languages spoken at home but also English; all were economically disadvantaged and enrolled in a Head Start program; *M* age=3.97; 30 females, 33 males	teacher, teaching assistant	individual or shared iPad use	8 weeks using assigned apps; 38 days of intervention; I-SL apps condition=1.8 hours per day (more overall time but used apps fewer days than in I-OE condition); I-OE apps condition=1.3 hours per day
Wang (2023)	RCT	60 children, 7 reported bilingual households; 3.3% reported income <$30,000; *M* age=4.5; 22 females, 38 males	researcher	individual	one session, 20 min

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
Wilcox et al. (2020)	RCT	287 children; 289 students with a developmental speech and/or language impairment (approximately 43.9% had a speech impairment and 56.1% had language or speech and language impairments) but no co-occurring intellectual or developmental disability or physical impairment; all children received SLP services in school (n=233) or both in school and out of school (n=54); all students had sufficient English proficiency to test in English; *M* age=4.4; 87 females, 202 males	teacher	whole class and small group	34 weeks of instruction during a school year with 14 thematic units (2 weeks each) and review weeks every fifth week (varied to accommodate school schedules)

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
Wong & Samudra (2021)	Within subjects	43 children, 100% MLs (primarily Spanish-speaking); all qualified for free-and-reduced price lunch; M age=4.6; 46.5% females; 53.50% males	researcher	individual	one session, six video clips (three per condition, approximately one minute each) with one vocabulary word targeted in each
Wong et al. (2021)	Within subjects	50 children; 100% MLs (primarily speakers of Spanish or Haitian Creole); all students qualified for free-and-reduced price lunch; M age=4.38; 48% females	researcher	individual	one session, nine 2-min video clips (3 per each of the three conditions), 1 vocabulary word targeted per video
Zucker et al. (2021)	RCT (underpowered pilot)	170 children (classroom-implemented); 87 children (classroom & family-implemented); 10 students with disabilities; all children and their families met federal income or risk criteria to qualify for the Head Start program; *M* age=4.4; 84 females, 86 males	teacher, family	whole class and small group (classroom setting); individual (home setting)	whole-class interactive book reading lessons four times per week for ~20 min (90 lessons, total estimate: 1840 min); Tier 2 lessons began in Unit 5 for a total of 19 weeks (76 lessons, total estimate: 760 min)

Study	Study Design	Student Characteristics	Implementer	Unit of Delivery	Dosage
Zucker et al. (2019)	RCT (Randomized waitlist control - pilot)	1,337 total children 731 of whom were preschool-aged; children were described as at-risk for later reading difficulties; a large proportion of children were Spanish-speaking MLs; *M* age (of PreK children): approximately 4.5; Pre-K: 356 females; 375 males	teacher	whole class (Tier 1), small group (Tier 2)	26-week intervention, included 26 trade books, each read three times in Tier 1; daily Tier 2 instruction for eligible students

Table 2

Oral Language and Vocabulary Outcomes

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
Boyle et al. (2021)	SCD	Baseline (probe only) vs. shared reading e-books with the transition to literacy (T2L) feature	N/A	N/A	N/A	**Single-word reading/receptive knowledge of instructed vocabulary words** - researcher-created measure of number of instructed words in written form matched to corresponding image *Effect: M*=73% of words learned, gain of 4.3 words above baseline of 1.7 on average; Tau-U=.94 (very large effect) *Generalization:* One generalization probe administered during baseline and intervention phases (same words, different pictures) *Effect:* pre-intervention *M*=1.67 (range: 1.0–2.0); post-intervention *M*=6.0 (range: 4.0-8.0)

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
Dennis & Whalon, (2021)	SCD	Repeated storybook reading to teach verb vocabulary 1. Teacher-facilitated 2. App- facilitated via Smart Notebook on iPad	N/A	N/A	**Depth of expressive vocabulary knowledge of instructed words (verbs)** - researcher-created measure of knowledge of selected verbs as measured by providing a definition (3/3 points), example (2/3 points), or demonstration of the word (1/3 points) *Effect:* Increases at immediate post-test were higher in the app-facilitated storybook reading condition for four of the six participants, but better maintenance of words taught in the teacher-facilitated condition were observed at	N/A

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
					maintenance for four of the six participants.	
Derby et al., (2022)	Crossover	1. Rich Reading and Reminiscing 2. Stimulating Sound Sensitivity	N/A	N/A	**Picture Naming Task (PNT)**: researcher-created measure of expressive vocabulary knowledge of	N/A

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
					instructed words in both English and te reo Maori; completed at pre-, mid- and post-intervention *Effect*: Tia (engaged in the RRR portion of the intervention first) was able to name 3 out of the 8 new words mid-intervention and maintained her score at post-intervention and at 6 month follow-up; Kahu (engaged in the SSS portion of the intervention first) scored 0 out of 8 pre-RRR portion, post RRR intervention portion he scored 4 out of 8 and maintained his score at 6 month follow-up	

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
Dickinson, Collins, et al., (2019)	RCT	1. Reading only (RO) 2. Reading plus play (R + P)	N/A	N/A	**New Word Definition Test-Modified**: researcher-modified version of the New World Definition Test; children were asked to explain the meaning of vocabulary words using words and/or gestures. Responses were video- or audio recorded. Included 14 Tier 2 words; target words (*n*=10-12), control words (*n*=2-3), and an easy filler word (*n*=1). *Effect:* Across both conditions: For taught words: large gains for R+P (*d*=1.12) and RO (*d*=0.94). For control words, growth was absent for R+P (*d*=0.10) and RO (*d*=0.01); Within	**Receptive Knowledge of Taught and Control Words**: researcher-created picture vocabulary test similar to the PPVT; children selected from an array of pictures containing the correct referent, a conceptual foil, and a thematic foil (e.g., for the word 'throne': throne, folding chair, and crown). Included 14-15 Tier 2 words: Target words (*n*=10 - 12), Control words (*n*=2-3), and an easy filler word (*n*=1). *Effect:* large growth for taught words (R+P, *d*=1.32; RO, *d*=1.02) and minimal growth for control words (R+P, *d*=0.11; RO, *d*=0.04). Within-subject contrasts: Large effects (p<.001) for both conditions (R+P, *B*=.191, *SE*=0.17, *d*=1.08; RO, *B*=.153, SE=.019, *d*=0.92).

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
					subjects: large effects (p<.001) for both conditions (R+P, B=.390, SE=.026, d=1.41; RO, B=.2.67, SE=.026, d=1.23)	

Dickinson, Nesbitt, et al., (2019) - Study A	RCT	RQ1 1. Didactic explicit instruction 2. Conceptual explicit instruction 3. Review implicit instruction RQ2 1. Instructed, Exposure, and Control Words	N/A	N/A	N/A	**Receptive vocabulary knowledge of instructed words:** researcher-created measure modeled after PPVT-4; children selected a response from three pictures (a correct referent, a thematically related foil, and a conceptually related foil) *Effect:* Instructed Words (level of instruction by condition): 1. Review (*n*=76), *d*=0.47, *p*<.01 (compared to conceptual *d*=-0.10) 2. Didactic (*n*=74), *d*=0.63, *p*<.01 (compared to review d=0.15, compared to conceptual *d*=0.04) 3. Conceptual (*n*=76), *d*=0.56, *p*<.01 (compared to review *d*=0.10) Exposure Words: 1. Review *d*=0.30, *p*<.01 (compared to conceptual *d*=-0.23) 2. Didactic *d*=0.23, *p*<.01 (compared to review *d*=0.04, compared to conceptual *d*=-0.22)

						3. Conceptual *d*=0.52, *p*<.01 (compared to review *d*=0.23) Control Words: 1. Review, *d*=0.16 (nonsignificant, compared to conceptual *d*=0.03) 2. Didactic, *d*=0.22, *p*<.01 (compared to review *d*=0.01, compared to conceptual *d*=0.04) 3. Conceptual, *d*=0.52, *p*<.01 (compared to review *d*=0.23) Level of Instruction: 1. Instructed, *d*=0.55, *p*<.01 (compared to control *d*=0.43, *p*<.01; compared to exposure *d*=0.41, *p*<.01) Exposure, *d*=0.35, p<.01 (compared to control *d*=0.08) Control, *d*=0.14, *p*< 05 (compared to exposure *d*=-0.08)

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
Dickinson, Nesbitt, et al., (2019) - Study B	Within subjects	1. Instructed words 2. Exposure words not highlighted 3. Control words not taught	N/A	N/A	**Depth of expressive vocabulary knowledge of instructed words:** researcher-created measure (adapted) of children's depth of expressive vocabulary knowledge of instructed words; *Effect:* instructed words>control words, (*d*= 1.19); instructed words>exposure words (*d*=0.63)	**Receptive vocabulary knowledge of instructed (*n* = 20), exposure (*n* = 6-8), and control (*n* = 8) words:** researcher-created measure modeled after PPVT-4; children selected a response from three pictures (a correct referent, a thematically related foil, and a conceptually related foil) *Effect:* instructed words > control words (*d*=0.48, *p*<.01); instructed words>exposure words (*d*=0.19, ns); exposure words>control words (*d*=0.37, *p*<.05)

Dillon, (2021)	SCD	Dialogic Reading with checklist (PEER/CROWD) and scripted prompts	N/A	N/A	**Expressive vocabulary knowledge of instructed words (Primary outcome):** ten instructed words were selected from each book and assessed biweekly, assessor showed a picture and asked, "What is this?"; marked as known if identified in 5-*s*, removed after mastery *Effect:* all participants showed an upward trend in vocabulary knowledge across probes; range Tau-U: .87-1	N/A

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
Fleury & Towson, (2021)	Pilot sequential multiple-assignment randomized trial (SMART) / adaptive intervention developmental study	1. 4-week vs. 8-week group dialogic reading intervention 2. Intensified 1:1 DR vs. modified DR with vocabulary pre-teaching, visual supports, and prompt hierarchy	N/A	N/A	**Expressive Vocabulary**: researcher-developed measure of expressive vocabulary knowledge of taught words (4–6 key vocabulary words from each intervention book; words occurred at least twice and were paired with illustrations), administered at pre-test, mid-test, and post-test using forms aligned with Stage 1 and Stage 2 books *Effect*: Slow vocabulary growth overall; no meaningful differences across treatment levels/conditions. Stage 1: Children in the early-decision 4-week condition	N/A

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
					increased from a median of 28% at pretest to 32% at mid-test, with median growth of 0.31 words/week. Children in the late-decision 8-week condition increased from 12% to 20%, with median growth of 0.50 words/week. Stage 2: Slow responders assigned to 1:1 DR increased from 24% at mid-test to 28% at posttest, with median growth of 0.0 words/week. Slow responders assigned to modified DR increased from 30% to 44%, with median growth of 0.15 words/week. Authors concluded that vocabulary growth was slow and that meaningful changes in growth	

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
					rate were not detected across stages/conditions.	

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
Gonzalez et al., (2024)	RCT	Shared book reading curriculum (interactive shared-book reading intervention vs. book-only comparison condition)	N/A	N/A	1. **Researcher-Developed Expressive Picture Vocabulary Test (REPVT):** researcher-created measure of expressive vocabulary knowledge of instructed words *Effect:* (γ01_intervention =8.26, p<.001, standardized coefficient=.80, R2 intervention=.64, 95% CI=[6.03, 10.50]). 2. **Expressive Vocabulary Test, Second Edition (EVT-2):** standardized measure of expressive vocabulary knowledge *Effect*: (γ01=1.83, p=.42,	1. **Researcher-Developed Receptive Picture Vocabulary Test (RRPVT):** researcher-created measure of receptive vocabulary knowledge of instructed words *Effect:* (γ01_intervention=5.43, p<.001, standardized coefficient=.90, R2 intervention=.81), 95% CI=[4.48, 6.37]) 2. **Peabody Picture Vocabulary Test, Fourth Edition (PPVT-4):** standardized measure of receptive vocabulary knowledge *Effect:* (γ01=1.16, p=.28, standardized coefficient=.29, R2 intervention=.09, 95% CI=[-0.94, 3.26])

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
					standardized coefficient=.16, R2 intervention=.03, 95% CI=[-2.63, 6.29]).	

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
Gray et al., (2024)	RCT	1. Teaching Early Literacy and Language (TELL) curriculum 2. Business-as-usual instruction	**Preschool Early Literacy Indicators (PELI):** standardized measure of vocabulary/oral language and comprehension *Effect:* no significant TELL effect for either subtest	1. **TELL CBM: Narrative Story Retell:** researcher-created measure of retell of a narrative passage after it was read aloud by the assessor *Effect:* no significant TELL effect 2. **TELL CBM: Expository Book Summary:** researcher-created measure of a child's ability to accurately answer eight questions about the main ideas and details of an expository passage after it was read aloud by the assessor *Effect:* significant TELL effect at Month 3.5 (p=.04, d=0.22) and Month 7.3 (p=.0008; d=0.58) 3. **Woodcock Johnson IV Tests of Oral Language - Listening**	**TELL CBM: Expressive Vocabulary:** researcher-created measure of receptive vocabulary knowledge of instructed words *Effect:* significant TELL effect at all six time points, p<.0001; d=1.01–1.52.	**TELL CBM: Receptive Vocabulary:** researcher-created measure of receptive vocabulary knowledge of instructed words *Effect: s*ignificant TELL effect at all six time points, p<.0001; d=0.67–1.20.

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
				Comprehension Cluster: standardized measure of oral language, including the oral comprehension and understanding directions subtests *Effect:* no significant TELL effect		

Hopkins et al., (2022)	QED (Mixed Methods)	1. Word Aware 2 (Early Years Version) 2. BAU instruction	N/A	N/A	N/A	**1. Receptive vocabulary knowledge of instructed words:** researcher-created measure of receptive knowledge of instructed vocabulary words in which the assessor reads a sentence with reference to a concept and the child selects an image that matches the description from a set of 3 images *Effect:* non-significant main effect of group $F(1, 116)=15$, $p=.70$ and a significant main effect of time, $F(1, 116)=42.5$, $p<.001$ (post-test > pre-test for both groups, small effect (partial $\eta 2=0.30$); no significant differences between Level 2 and Level 3 words **2. Pre-School Clinical Evaluation of Language Fundamentals (CELF-2) basic word concept subtest:** standardized measure of receptive vocabulary knowledge

						Effect: no significant difference for either group (p>.05)

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
Kelley et al., (2020)	RCT	1. Story Friends (prerecorded audiobooks+home literacy strategies) 2. Comparison - storybooks including the same vocabulary but no explicit vocabulary instruction; focus on general language strategies at home/school	N/A	N/A	**Depth of expressive vocabulary knowledge of instructed words (Unit Vocabulary Test):** researcher-created measure of expressive vocabulary knowledge of instructed words using an open-ended, definitional task (e.g., Tell me, what does __ mean?" scored on a 3-point scale *Effect:* Cohen's ds ranged from 1.04 to 2.77 across the nine books, mean d=1.83; Story Friends>Comparison	N/A

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
LaGamba, (2018)	Within subjects	1. Rich instruction+more rich instruction (RI) 2. Rich instruction+play (+P)	N/A	N/A	**Expressive vocabulary knowledge of instructed words:** researcher-created measure of expressive vocabulary knowledge of instructed words coded for three aspects of word knowledge: synonym or definition, meaningful context, and gesture/facial expression/vocalization *Effect:* RI+P>RI at both post-test and follow-up (p<.01)	**Receptive vocabulary knowledge of instructed words:** researcher-adapted measure of receptive knowledge of instructed words for which two yes/no questions are asked for each target word *Effect:* significant positive differences in knowledge of instructed words in both conditions; no significant difference between word learning across conditions (at post-test nor delayed post-test)

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
Language and Reading Research Consortium et al., (2022)	RCT	1. Let's Know! Wide 2. Let's Know! Deep 3. BAU control group	N/A	1. **CAM: Comprehension Monitoring:** researcher-created measure of children's abilities to monitor comprehension of orally presented narrative or expository passages (i.e., listen to a short passage, identify what didn't make sense, and suggest a fix-up strategy) *Effect:* Let's Know! Broad v. Control, *d*=0.55 (*p*=.003) Let's Know! Deep v. Control, *d*=0.77 (*p*<.001) Let's Know! Deep v. Broad, *d*=0.23 (*p*=.987) 2. **CAM: Understanding Narrative Text:** researcher-created measure for which children listened to a narrative passage, retold it, and answered	1. **Curriculum-Aligned Measure (CAM): Vocabulary:** researcher-created measure of expressive vocabulary knowledge of instructed words *Effect:* Let's Know! Broad v. Control, *d*=0.90 (*p*<.001) Let's Know! Deep v. Control, *d*=1.22 (*p*<.001) Let's Know! Deep v. Broad, *d*=0.32 (*p*=.830) 2. **Let's Know! Vocabulary:** researcher-created measure of expressive vocabulary knowledge of instructed words *Effect:* Let's Know! Broad v. Control, *d*=0.69 (*p*<.001)	N/A

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
				3 comprehension questions *Effect:* Let's Know! Broad v. Control, *d*=-0.04 (*p*=.855) Let's Know! Deep v. Control, *d*=-0.04 (*p*=.897) Let's Know! Deep v. Broad, *d*=0.00 (*p*=.987) 3. **CAM: Understanding Expository Text:** researcher-created measure for which children listened to an expository passage and answered 2 comprehension questions pertaining to the main idea and key details *Effect:* Let's Know! Broad v. Control, *d*=0.42 (*p*=.140) Let's Know! Deep v. Control, *d*=0.49 (*p*=.003) Let's Know! Deep v.	Let's Know! Deep v. Control, *d*=0.74 (*p*<.001) Let's Know! Deep v. Broad, *d*=0.05 (*p*=.987)	

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
				Broad, *d*=0.08 (*p*=.987) 4. **CAM: Story Grammar:** researcher-created measure for which children listened to a narrative passage and completed an oral retelling of the story *Effect:* Let's Know! Broad v. Control, *d*=0.10 (*p*=.780) Let's Know! Deep v. Control, *d*=0.09 (*p*=.737) Let's Know! Deep v. Broad, *d*=-0.01 (*p*=.987) 5. **Test of Narrative Recall (TNR): Story Grammar:** standardized measure of retell of a narrative passage with scoring focused on presence of story grammar elements *Effect:* Let's Know! Broad v. Control, *d*=-0.02		

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
				(*p*=.855) Let's Know! Deep v. Control, *d*=-0.01 (*p*=.963) Let's Know! Deep v. Broad, *d*=0.05 (*p*=.987) 6. **Test of Narrative Recall (TNR): Story Cohesion:** standardized measure of a retell of a narrative passage with scoring focused on use of temporal and causal connectives *Effect:* Let's Know! Broad v. Control, *d*=0.03 (*p*=.855) Let's Know! Deep v. Control, *d*=0.04 (*p*=.897) Let's Know! Deep v. Broad, *d*=0.01 (*p*=.987) 7. **Test of Narrative Recall (TNR): Comprehension:** standardized measure of comprehension of narrative text for which		

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
				children answered three comprehension questions after listening to a narrative passage and retelling it *Effect:* Let's Know! Broad v. Control, *d*=-0.24 (*p*=.328) Let's Know! Deep v. Control, *d*=-0.15 (*p*=.505) Let's Know! Deep v. Broad, *d*=0.10 (*p*=.987) **8. Test of Narrative Language (TNL): Comprehension:** standardized measure for which children answered three comprehension questions after listening to a narrative passage and retelling it *Effect:* Let's Know! Broad v. Control, *d*=0.03 (*p*=.855) Let's Know! Deep v.		

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
				Control, *d*=0.13 (*p*=.384) Let's Know! Deep v. Broad, *d*=0.10 (*p*=.987)		
Lenhart et al., (2019)	SCD/ Crossover	1. Say-tell-do-play (STDP) technique - version 1 2. Say-tell-do (STD) technique - version 2	N/A	N/A	**Curriculum-Based Decision-Making Tool: Word Awareness:** researcher-created measure of expressive knowledge of target word learning *Effect:* STDP>STD (*p*<.04) STDP: *M*=6.33, *SD*=1.72 STD: *M*=4.80; *SD*=1.47 At delayed post-test (2 months after implementation), *M*=5.80, *SD*=1.57; STDP>STD	**1. Curriculum-Based Decision-Making Tool: Word Awareness:** researcher-created measure of receptive knowledge of target word learning *Effect:* STDP>STD (*p*<.04) STDP: *M*=9.33, *SD*=0.90 STD: *M*=8.20; *SD*=1.32 At delayed post-test (2 months after implementation), M=8.40, SD=1.06; STDP>STD, receptive word retention>expressive word retention; words taught through either method (total receptive+expressive CBDM score)>untaught

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
						words (d=.86) **2. Two Question Vocabulary Measure (TQVM):** researcher-created measure of ability to understand the definition of a word as used in a sentence (two yes/no questions posed for each word) *Effect: p*aired t tests at four time points (Weeks 1, 4, 5, 8) showed no significant differences by intervention condition (p=.89, p=.93, p=.56, p=.78, respectively)

Murdoch et al., (2022)	QED	1. Project READY (early language and literacy program) 2. Matched control 3. Economically-Advantaged control	**Preschool Early Literacy Indicators (PELI):** standardized measure, composite score of five subtests: Alphabetic Knowledge; Vocabulary; Oral Language; Listening Comprehension; and Phonological Awareness *Effect:* Project READY > matched low-income control for both 3- and 4-year-olds with large, significant effects (3-year-olds: t(11)=4.99, p=.0002, d=2.15; 4-year-olds: t(23)=4.04, p=.0002, d=1.44); also > middle-income control gap closed for 3-year-olds (ns, p=.15) but a significant gap remained for 4-year-olds (t(26)=2.96, p=.003)	N/A	N/A	N/A

Phillips et al., (2022)	Within subjects	Media-Enhanced Vocabulary Instruction	**Curriculum-Based Vocabulary Assessment (Form A & B):** researcher-created measure of expressive and receptive vocabulary knowledge of taught and untaught words assessed through pointing or labeling/cloze queries; Forms A & B were parallel, each including 20 taught and 20 untaught words *Effect*: Taught words > untaught words: *b*=3.78, *SE*=0.18, t=20.99, *p*<.001; Condition×Wave: *b*=0.07, *SE*=0.01, t=7.21, *p*<.001 (faster growth on taught words); three-way interaction taught x wave x form indicated slight difference in growth between the two assessment forms (p=.02)	N/A	N/A	N/A

Pollard-Durodola et al., (2018)	RCT	1. Interactive content-enriched shared book-reading 2. Explicit vocabulary-only condition	N/A	N/A	**1. Expressive Vocabulary Test (EVT-2)**: standardized measure of expressive vocabulary knowledge *Effect*: *d*=0.06, γ01_intervention= 12.02, *p*=.522; no statistically significant differences between the shared book reading and vocabulary only conditions **2. Researcher-Developed Expressive Picture Vocabulary Test (RDEPVT):** researcher-created measure of expressive vocabulary knowledge of taught words (similar administration to EVT-2) *Effect: d*=0.13, γ01_intervention= 10.00, *p*=.265; no significant	**1. Peabody Picture Vocabulary Test (PPVT-4):** standardized measure of receptive vocabulary knowledge *Effect:* d=-0.15, γ01_intervention=0.95, p=.916; no statistically significant differences between the shared book reading vs. vocabulary only conditions **2. Researcher-Developed Receptive Picture Vocabulary Test (RDRPVT):** researcher-created measure of receptive vocabulary knowledge of instructed words (similar administration to PPVT-4) *Effect:* d=-0.03, γ01_intervention=2.25, p=.633; there were no significant differences between the shared book reading vs. vocabulary only conditions

					differences between the shared book reading and vocabulary only conditions	

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
Powell et al., (2026)	RCT	1. TEMPLE: Teaching Early Mathematics by Providing Language Exploration read-aloud routine 2. Waitlist BAU control	N/A	N/A	N/A	**Preschool Assessment of Math Language (PALM):** standardized measure of receptive knowledge of math-related vocabulary on which children respond by touching pictures or moving blocks; 8 of 18 words assessed were explicitly taught *Effect:* no significant effects of the TEMPLE intervention Mid-test: *ES*=0.09, 95% CI [-0.02, 0.19] Post-test: *ES*=0.09, 95% CI [-0.03, 0.21]

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
Read et al., (2019)	RCT	Intentional pausing during shared storybook reading: 1. Prediction (silent pause or eliciting question) 2. Reflection (silent pause or eliciting question)	**Novel word retention:** researcher-created measure of expressive and receptive identification of storybook characters *Effect*: main effect of condition, F(2, 56)=4.55, p=.015, ηp 2=.14; prediction (pausing pre-target) > reflection (pausing post-target; p=.022, d=.73) and control condition (p=.005, d=.94); no significant difference between reflection and control conditions (p=.579, d=.18); no main effect of pause type, F(1, 37)=0.85, p=.362, ηp^2=.02, but a significant pause type×condition interaction, F(1,	N/A	N/A	N/A

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
			37)=7.10, p=.011, ηp^2=.16, silent pauses>eliciting questions in the prediction condition, and eliciting questions>silent pauses in the reflection condition			

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
Riordan et al., (2022)	RCT	1. Rich Reading and Reminiscing (RRR) 2. Strengthening Sound Sensitivity (SSS) 3. Activity based control	N/A	**Oral language skills (listening comprehension):** researcher-created measure of story comprehension for which children listened to a recording of a book while the assessor turned pages of the book and responded to six comprehension questions *Effect*: no significant main effects (p>.12)	N/A	N/A
Rivera Pérez et al., (2019)	Randomized Block Design	1. Spanish-English instruction with Audio Prompting (SEIG) 2. English-only instruction (EIG) 3. Control	N/A	N/A	1. **English Vocabulary Naming**: researcher-created measure of expressive vocabulary knowledge of 24 instructed words for which children	N/A

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
					were shown a photograph and asked to label the picture in English *Effect*: All children scored 0/24 at pre-rest. SEIG and EIG both improved English naming compared with control. Pretest–posttest: SEIG vs. control, β=3.64, SE=0.57, z=6.39, OR=37.94, p<.001; EIG vs. control, β=3.08, SE=0.57, z=5.42, OR=21.72, p<.001. Gains were maintained at 6-week follow-up for both SEIG and EIG: SEIG p<.001; EIG p<.001 2. **English Vocabulary Definition**: researcher-created expressive	

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
					vocabulary knowledge measure for correctly named English words; if the child named the target word correctly, the examiner asked for a descriptor or attribute in Spanish *Effect*: Only SEIG showed significant English definition gains compared with control. Pretest–posttest: SEIG vs. control, β=4.10, SE=1.45, z=2.83, OR=60.22, p=.004. EIG vs. control was not significant, p=.089. Maintenance: SEIG gains were maintained at follow-up, β=3.18, SE=1.42, z=2.23, OR=23.99, p=.026; EIG remained	

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
					nonsignificant, p=.358. 3. **Spanish vocabulary naming**: researcher-created measure of expressive vocabulary knowledge of 24 instructed words for which children were shown a photograph and asked to label the picture in Spanish (English/Spanish language order was counterbalanced across items.) *Effect*: Only SEIG showed significant Spanish naming gains compared with control. Pretest–posttest: SEIG vs. control, β=4.05, SE=0.538, z=7.55, OR=57.45, p<.001. EIG vs.	

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
					control was not significant, p=.282. Maintenance: SEIG Spanish naming gains were maintained at follow-up, β=3.04, SE=0.47, z=6.43, OR=20.82, p<.001; EIG remained nonsignificant, p=.107 4. **Spanish vocabulary definition**: researcher-created expressive vocabulary knowledge measure for correctly named Spanish words; if the child named the target word correctly, the examiner asked for a descriptor or attribute in Spanish.	

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
					Effect: Only SEIG showed significant Spanish definition gains compared with control. Pretest–posttest: SEIG vs. control, β=3.59, SE=1.19, z=3.02, OR=36.20, p=.002. EIG vs. control was not significant, p=.558. Maintenance: SEIG Spanish definition gains were maintained at follow-up, β=2.72, SE=1.24, OR= 8.82, p=.029; EIG remained nonsignificant, p=.801	
Rogowsky et al., (2018)	RCT	1. Computer-Assisted Instruction 2. Comparison group - free choice center time	N/A	N/A	**Test of Preschool Early Literacy (TOPEL) - Definitional Vocabulary:** standardized measure of expressive vocabulary knowledge	**Woodcock-Johnson Test of Achievement-III Picture Vocabulary:** standardized measure of receptive vocabulary knowledge *Effect:* *g*=0.55 (CAI>comparison

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
					Effect: g=1.42 (CAI>comparison group)	group)
Samudra et al., (2019)	RCT	Repetition condition of educational media viewing 1. One view 2. Massed repetition 3. Spaced repetition.	N/A	N/A	**Expressive Vocabulary - Word Labeling**: researcher-created measure expressive vocabulary knowledge of instructed words; children viewed one cartoon image for each target word and were asked to provide a label *Effect:* Repetition condition had a significant main effect on expressive vocabulary, F(2, 118)=3.70, p=.028. Massed repetition and one-view	**1. Receptive Word Labeling - Screenshot Images**: researcher-created measure of receptive vocabulary knowledge of instructed words using screenshot images from the educational media clip representing the target word; modeled after the PPVT *Effect*: Repetition condition had a significant main effect, F(2, 118) = 3.69, p=.028. Children in the spaced repetition condition scored significantly higher than children in the one-view condition, t(83)=−2.22, p=.029. The massed repetition condition fell between the two and

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
					conditions had equivalent scores, t(88)=.23, p=.817. Spaced repetition scored marginally higher than the other conditions, t(85)=−1.92, p=.058. Expressive vocabulary also increased from immediate to delayed posttest, F(1, 118)=17.05, p<.001.	did not significantly differ from either condition. No significant decline from immediate to delayed posttest, F(1, 118)=.083, p=.774, indicating retention over 1 week. **2. Receptive Word Labeling - Cartoon Images:** researcher-created measure of receptive vocabulary knowledge of instructed words focused on generalization to novel cartoon images (i.e., new visual representation) *Effect*: No significant main effect of repetition condition was reported for receptive word labeling with cartoon images. There was no significant decline from immediate to delayed posttest, F(1, 118)=.218, p=.642, suggesting retention. Age had a significant main effect on this measure, F(1,

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
						118)=5.05, p=.026, with older children scoring higher. There was also an interaction between baseline vocabulary/PPVT group and repetition condition for this measure, F(2, 118)=3.84, p=.024; lower-PPVT children scored lower than higher-PPVT children specifically in the massed repetition condition. 3. **Auditory Definitional Understanding**: researcher-created forced-choice measure assessing children's understanding of the meaning of each target word without visual supports (e.g., "What do lungs help us do? Breathe, or Buy toys?") *Effect:* Retention effect only. There was a significant interaction between repetition condition and posttest

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
						timing for auditory definitional questions, $F(2, 118)=4.48$, $p=.013$. The one-view group declined significantly from immediate to delayed posttest, $t(43)=2.63$, $p=.012$. The massed and spaced repetition groups did not decline. At delayed posttest, massed repetition performed above chance, $t(45)=2.69$, $p=.010$, and spaced repetition performed above chance at both immediate and delayed posttest, $t(40)=3.97$, $p<.001$ at both time points.

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
Scott et al., (2025)	Within subjects	1. Words taught just through shared book reading 2. Words taught just through PLEs 3. Words taught through a combination of shared book reading+PLEs			**Expressive Measure of Word Knowledge:** researcher-created measure of expressive vocabulary knowledge, including taught words and non-exposure control words *Effect:* -Larger gains for taught words (*OR*=26.13) than control words (*OR*=1.57); B=0.70, SE=0.04, p<.001 -No significant differences in vocabulary growth across intervention conditions -Delayed post-test - expressive vocabulary scores declined but remained significantly above pretest levels (OR=14.73;	**Receptive Measure of Word Knowledge:** researcher-created measure of receptive vocabulary knowledge, including 20 taught words and 5 non-exposure control words *Effect:* -Larger gains for taught words (*OR*=2.83) than control words (*OR*=1.08); B=0.24; *p*<.001 -No significant differences in vocabulary growth across intervention conditions -Delayed post-test - receptive vocabulary scores declined but remained significantly above pretest levels, indicating retained learning over time (*B*=0.80, *p*<001; *OR*=1.81); significantly less decline in receptive vocabulary knowledge of taught words over time than control words (*B*=0.30,

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
					B=2.76, SE=0.17, p<.001), significantly less decline in expressive vocabulary knowledge of taught words over time than control words (B=0.44, SE=0.08, p<.001)	*p*<.001)

Seven et al., (2020)	SCD	1. Story Friends+Classwide Vocabulary Review Strategies (CVRS) 2. Story Friends	N/A	N/A	**Expressive vocabulary knowledge of instructed words:** researcher-created measure of expressive vocabulary knowledge of instructed words *Effect:* Repeated Acquisition - children's word learning increased over time with an increase of at least 2 word points in 89% of the 174 possible replications; AATD - 12 children CVRS+SF condition>SF condition; 3 children ceiling effects; 6 children inconsistent treatment effects; 2 children week learning overall; average vocabulary gains were higher for CVRS+SF (*M*=4.7 word points; SD=1.37) than SF (M=2.8 word	

					points; SD=1.16); MLM indicated a statistically significant effect of CVRS+SF (b=2.802, p<.001)	

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
S. Spencer et al., (2025)	QED	1. LEAP (Language Enrichment Activity Programme) 2. Control group (initially planned as waitlist control)	N/A	1. **Renfrew Action Picture Test (RAPT) - Information Score:** standardized expressive language assessment for which children respond to 10 picture prompts (e.g., "What is the big girl doing?") are transcribed and scored for the amount/quality of information conveyed in their responses *Effect:* No significant LEAP effect. The group×time interaction for RAPT Information was not significant, $F(1,116)=0.555$, $p=0.458$, partial $\eta^2=0.005$. Average raw score for children who received LEAP increased from 17.02 to 22.00, while controls improved from 19.33 to 22.39; difference in growth was not significant. At 8-week follow-up, no significant interaction, $F(2,84)=0.673$,	**LEAP Vocabulary Checklist / LEAP Vocabulary Outcome Measure**: non-standardized measure of expressive vocabulary knowledge; children were shown 50 pictures and asked to label them *Effect*: Significant immediate effect favoring LEAP. The group × time interaction was significant, $F(1,116)=4.346$, $p=0.039$, partial $\eta^2=0.036$. Post hoc results showed LEAP children made greater progress from Time 1 to Time 2 (M change=4.21, SD=4.27) than controls (M change=2.56,	N/A

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
				p=0.513, partial η^2=0.016 2. **Renfrew Action Picture Test (RAPT) - Grammar Score:** Standardized expressive grammar measure from the Renfrew Action Picture Test. Children respond to 10 picture prompts, and their responses are transcribed and scored for grammatical complexity. Both raw scores and age-based percentile ranks are reported. Effect: Significant immediate effect favoring LEAP but not maintained at follow-up. The group × time interaction was significant, F(1,116)=4.10, p=0.05, partial η^2=0.034. Post hoc results showed raw scores increased more for children who received LEAP (M change=3.52, SD=5.99) than	SD=4.16), t(116)=2.085, p=0.020. At 8-week follow-up, the group×time interaction was not significant, F(2,84)=1.28, p=2.85	

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
				controls (M change=1.31, SD=5.61), t(116)=2.026, p=0.023. At 8-week follow-up, the interaction was not significant, F(2,84)=1.49, p=0.231, partial η^2=0.034. 3. **LEAP ICW Expressive Language**: non-standardized expressive vocabulary knowledge measure linked directly to the LEAP intervention with variation in the number of Information Carrying Words (ICW) included in instructions; examiner performed an action with toys/objects, and the child described what was happening *Effect:* Significant immediate effect favoring LEAP and only outcome with follow-up effect. The group×time interaction from Time 1 to Time 2		

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
				was significant, $F(1,116)=4.15$, $p=0.04$, partial $\eta^2=0.035$. Post hoc results showed LEAP children made greater progress (M change=1.93, SD=2.61) than controls (M change=0.92, SD=2.71), $t(116)=2.038$, $p=0.022$. At the 8-week follow-up, significant group×time interaction, $F(2,84)=3.11$, $p=0.05$, partial $\eta^2=0.069$. 4. **LEAP ICW Receptive Language:** non-standardized receptive language measure linked directly to the intervention. Children listened to instructions and responded by manipulating objects, toys, and pictures. Instructions increased in complexity from 2 information carrying words (ICW) to 4 ICW (e.g., “put the big apple under the		

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
				plate"). *Effect:* No significant LEAP effect. The group×time interaction from Time 1 to Time 2 was not significant, $F(1,116)=1.115$, $p=0.293$, partial $\eta^2=0.01$. Average raw scores for children who received LEAP improved from 6.32 to 7.44, while controls improved from 6.92 to 7.60. At 8-week follow-up, the interaction was also not significant, $F(2,84)=0.157$, $p=0.855$, partial $\eta^2=0.004$.		
T. D. Spencer et al., (2020)	Clustered randomized group study	1. Puente de Cuentos/multi-tiered dual-language narrative curriculum 2. Business-as-usual control group	N/A	1. **English Narrative Language Measures - Listening Subtest:** standardized measure of English narrative retell, scored in real time for story grammar elements and complex language indicators (best score of 3 opportunities retained); stories were unfamiliar and never repeated, but similar to those	**1. Clinical Evaluation of Language Fundamentals: Preschool (CELF-P) - English Expressive Vocabulary:** standardized measure of English expressive vocabulary for	**1. English Receptive Picture Vocabulary Assessment: A, B, C**: researcher-created measure of receptive vocabulary knowledge of instructed English words for which children pointed to a drawing matching the target word from, 3 foils *Effect*: Significant treatment effects

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
				taught in Puente de Cuentos (proximal measure) *Effect*: Significant treatment effect favoring intervention. Adjusted posttest difference=4.05, 95% CI [2.06, 6.05], p<.01; Hedges' g=.85; improvement index=30%. Treatment group adjusted posttest mean=6.91; control adjusted posttest mean=2.86. 2. **Spanish Narrative Language Measures - Listening Subtest**: standardized measure of Spanish narrative retell, scored in real time for story grammar elements and complex language indicators; stories were unfamiliar and never repeated but similar to those taught in Puente de Cuentos (proximal measure) *Effect*: Significant	which children labeled pictures of objects and actions in English *Effect:* No treatment effect. Adjusted posttest difference=−0.26, 95% CI [−2.38, 1.86], p=.80; Hedges' g=−.05; improvement index=−2%. The authors noted both groups made equivalent gains in English EV and no gains in Spanish EV. 2. **Clinical Evaluation of Language Fundamentals: Preschool (CELF-P) - Spanish Expressive Vocabulary:** standardized measure of Spanish expressive	favoring intervention for all three English units. English Vocab A: adjusted difference=1.99, p=.02, g=.48, improvement index=18%. English Vocab B: adjusted difference=2.25, p=.02, g=.63, improvement index=24%. English Vocab C: adjusted difference=2.02, p=.02, g=.46, improvement index=18% **2. Spanish Receptive Picture Vocabulary Assessment: A, B, C:** researcher-created measure of receptive vocabulary knowledge of instructed Spanish words for which children pointed to a drawing matching the target word from, 3 foils *Effects*: Significant treatment effects for Spanish Vocab A and C; not significant for Spanish Vocab B. Spanish Vocab A: adjusted

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
				treatment effect favoring intervention. Adjusted posttest difference=3.01, 95% CI [0.53, 5.50], p=.02; Hedges' g=.48; improvement index=18%. Treatment group adjusted posttest mean=10.09; control adjusted posttest mean=7.08 3. **Assessment of Story Comprehension**: distal language comprehension measure; English narrative-based criterion-referenced assessment for which the child heard a short story and responded to factual and inferential questions *Effect:* Significant treatment effect favoring intervention. Adjusted posttest difference=1.59, 95% CI [0.18, 2.99], p=.03; Hedges' g=.49; improvement	vocabulary for which children labeled pictures of objects and actions in Spanish *Effect:* No meaningful treatment effect. Adjusted posttest difference=0.56, 95% CI [−3.00, 4.11], p=.75; Hedges' g=.06; improvement index=2%	difference=2.58, p<.01, g=.63, improvement index=24%. Spanish Vocab B: adjusted difference=1.12, p=.19, g=.31, improvement index=12%. Spanish Vocab C: adjusted difference=1.80, p=.02, g=.48, improvement index=18%.;

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
				index=19%. 4. **Clinical Evaluation of Language Fundamentals: Preschool (CELF-P)-English Word Structure:** standardized measure of grammatical abilities in English; raw scores were used in analyses. *Effect:* Not statistically significant, but meaningful/moderate effect. Adjusted posttest difference=1.78, 95% CI [−0.12, 3.69], p=.07; Hedges' g=.41; improvement index=16% 5. **CELF-P- Spanish Word Structure**: standardized measure of grammatical abilities; raw scores were used in analyses Effect: Not statistically significant. Adjusted posttest difference=2.50, 95%		

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
				CI [−0.27, 5.27], p=.07; Hedges' g=.41; improvement index=16% 6. **CELF-P- English Sentence Structure**: standardized measure of receptive language comprehension of spoken sentences in English for which children pointed to the picture corresponding to a spoken sentence; raw scores were used in analysis *Effect:* Significant treatment effect favoring intervention. Adjusted posttest difference=2.22, 95% CI [0.60, 3.84], p=.01; Hedges' g=.55; improvement index=21%. 7. **CELF-P Spanish Sentence Structure**: standardized measure of receptive language comprehension of spoken sentences in Spanish for which		

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
				children pointed to the picture corresponding to a spoken sentence; raw scores were used in analysis *Effect:* Significant treatment effect favoring intervention. Adjusted posttest difference=2.91, 95% CI [0.23, 5.60], p=.03; Hedges' g=.63; improvement index=24%		
T. D. Spencer et al., (2019)	SCD	Dual language narrative intervention with embedded vocabulary instruction	N/A	**Narrative Language Measures (NLM): Listening (Spanish and English retells):** standardized measure of narrative retell language samples in English and Spanish *Effect:* Participants improved English narrative retells and maintained Spanish retelling (baseline was at developmentally appropriate level); 5 participants showed clear trend changes, degree and timing of level changes varied	N/A	**Receptive picture vocabulary task (Spanish and English):** researcher-created measure of receptive vocabulary knowledge (picture vocabulary task) of instructed words, same pictures used for Spanish & English but in a different order *Effect:* English words (*d*=.98); Spanish words (*d*=.34)

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
				across participants with some being more immediate than others		

Vatalaro et al., (2018)	QED	1. Scaffolding-like vocabulary (I-SL) app 2. Open-ended vocabulary (I-OE) app 3. 2 Head Start chosen comparison apps	N/A	N/A	1. **Expressive Vocabulary Test (EVT-2):** standardized measure of expressive vocabulary knowledge *Effect:* within-subjects: η^2p=0.173, *p*=.002; between-subjects: η^2p=0.087, *p*=.190; interaction (group×time): η^2p=0.256, p=.001; statistically significant interaction effect between EVT GSV scores and group status (*p*=.001, partial eta squared=0.256, power=.942); I-SL condition yielded strongest growth 2. **iPad Expressive Vocabulary Assessment**: researcher-created expressive	1. **Peabody Picture Vocabulary Test (PPVT-4):** standardized measure of receptive vocabulary knowledge *Effect: w*ithin-subjects: η^2p=0.176, *p*=.001; between-subjects: η^2p=0.137, p=.035; interaction (group×time): η^2p=0.104, *p*=.253; The I-SL group performed significantly higher than I-OE group, (*p*=.040, *SE*=5.69542) 2. **iPad Receptive Vocabulary Assessment:** researcher-created receptive vocabulary measure of nine iPad functions *Effect:* within-subjects: η^2p=0.363, *p*=.001; between-subjects: η^2p=0.173, p=.010; I-SL group performed significantly better than the C-1 group (*p*=.026, *SE*=0.443) and the C-2 group (*p*=.013, *SE*=0.472); statistically significant interaction effect between iPad Receptive Vocabulary and group status (*p*=.000, partial eta

					vocabulary measure of nine iPad functions *Effect:* within-subjects: Correct Word: η^2p=0.365, *p*<.001; Correct Word/Description: η^2p=0.515, *p*<.001; between-subjects Correct Word: non-significant; Correct Word/Description: η^2p=0.174, p=.012; I-SL>C-1 (*p*=.043); I-SL>I-OE (*p*=.009); Interaction (group×time): Correct Word: η^2p=0.191, *p*=.008; Correct Word/Description interaction: η^2p=0.211, *p*=.003; I-SL group yielded strongest growth	squared=0.288, power=.986), greatest increases occurred in the I-SL and I-OE groups; C-2 group scores decreased slightly

Wang, (2023)	RCT	1. Shared book reading 2. Video viewing group 3. Shared book reading plus video viewing group	N/A	**Target Knowledge:** researcher-created measure of children's knowledge of target content assessed with two open-ended oral prompts *Effect:* no significant difference by condition on posttest target knowledge, $F(2,57)=.80$, $p=.45$; no significant differences in the video viewing group, $F(1,18)=4.25$, $p=.054$, shared book reading group, $F(1,17)=4.19$, $p=.057$, or the two-media group, $F(1,22)=1.34$, $p=.26$; For children with low baseline knowledge, no significant differences; for children with average knowledge, no significant differences; for children with high knowledge, video viewing > shared reading ($\beta=2.06$, $p<.001$) and video viewing>two-media ($\beta=1.66$, $p<.001$)	N/A	**Receptive vocabulary knowledge of instructed words:** researcher-created measure of receptive vocabulary knowledge of instructed words *Effect:* one-way ANOVA did not show significant differences by condition, $F(2,57)=.106$, $p=.899$; a significant increase in vocabulary knowledge at post-test was observed in the video viewing group only $F(1,18)=5.697$, $p=.028$; for children with low baseline vocabulary, video viewing>shared reading ($\beta=1.54$, $p<.001$) and two-media>shared reading ($\beta=1.08$, $p=.01$); for children with average vocabulary, video viewing>shared reading ($\beta=.75$, $p=.01$); for children with high vocabulary, no significant difference

Wilcox et al., (2020)	RCT	1. Teaching Early Literacy and Language (TELL) curriculum 2. Business-as-usual curriculum	1. **Clinical Evaluation of Language Fundamentals-Preschool 2nd Edition (CELF-P2):** standardized measure of language ability, including core language, expressive language, and receptive language *Effect:* no significant TELL effect on any subtest 2. **Test of Preschool Early Literacy (TOPEL): Definitional Vocabulary**: standardized measure of definitional vocabulary - mixed expressive and receptive vocabulary tasks *Effect:* no significant TELL effect		**Expressive vocabulary knowledge of instructed words:** two-part researcher-created measure of expressive vocabulary knowledge of instructed words, with one part administered pre/post in the fall and one pre/post in the spring *Effect:* Fall administration: significant TELL effect, [*F*(1,276)=50.71, *p*<.0001]; Cohen's f2=.18; Spring administration: significant TELL effect, [*F*(1,244)=80.72 *p*<.0001]; Cohen's f2=.44	**Receptive vocabulary knowledge of instructed words:** two-part researcher-created measure of receptive vocabulary knowledge of instructed words, with one part administered pre/post in the fall and one pre/post in the spring *Effect:* Fall administration: significant TELL effect, [*F*(1,275)=7.82, *p*=.0055]; Cohen's f2=.02; Spring administration: significant TELL Effect, [*F*(1, 259)=38.88, *p*<.0001]; Cohen's f2=.02

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
Wong & Samudra, (2021)	Within subjects	Visual-auditory congruence vs. noncongruence 1. Dual coding: visual+auditory presented simultaneously 2. Non-dual coding: visual and auditory presented at different times	N/A	N/A	N/A	1. **Word Identification Posttest / Vocabulary Learning Accuracy**: researcher-created receptive vocabulary measure of target words, similar to PPVT format with 2 foils; 6 words in context of video and 6 words in isolation (i.e., clip art images) *Effect*: Significant effect favoring dual coding. Children selected correct words 67% of the time in the dual-coding condition and 52% in the non-dual-coding condition. Visual–auditory congruence significantly supported vocabulary learning more than visual–auditory incongruence, $F(1, 38)=6.07$, $p=.018$. Dual coding was especially beneficial for children with lower parental English proficiency/L2 exposure in the home, $F(1, 38)=6.69$, $p=.014$.

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
						Children with lower L2 home exposure benefited more from simultaneous visual–auditory scaffolds than children with higher L2 home exposure. Child PPVT scores did not moderate the effect of dual-coding, $F(1, 38)=.11$, $p=.74$.

Wong et al., (2021)	Within subjects	Educational media 1. Participatory video stimuli 2. Expository stimuli 3. Narrative video stimuli	N/A	N/A	N/A	**1. Word Identification Measure:** researcher-created measure of receptive vocabulary knowledge of instructed words (picture identification) *Effect:* expository (t(49)=3.340, p=.002) and participatory (t(49)=5.248, p<.001) instructional contexts outperformed the narrative instructional context, but there was no significant difference between expository and participatory instructional contexts (t(49)=-1.124, p=-.266. **2. Word Meaning Measure:** researcher-created measure of children's comprehensive of instructed vocabulary words, assessed receptively (e.g., select images based on meaning, yes/no questions) *Effect:* no significant differences between instructional contexts

Zucker et al., (2021)	RCT (underpowered pilot)	1. Teaching Together Tier 1 2. Teaching Together Tier 2 Basic Family 3. Teaching Together Tier 2 Enhanced Family	N/A	**1. The Inference Making Task:** researcher created measure of inferential comprehension for which children hear a passage and respond to comprehension questions that require text integration inferences *Effect*: Tier 1: g=0.02 (*p*=.91); Tier 2 Basic: g=−0.25 (*p*=.11); Tier 2 Enhanced: *g*=0.25 (*p*=.11) **2. Narrative Language Measures: Preschool (NLM):** standardized measure of children's ability to retell narrative stories at post-test only *Effect:* Tier 1: −0.21 (*p*=.14); Tier 2 Basic: −0.09 (*p*=.59); Tier 2 Enhanced: −0.39 (*p*<.05) **3. Clinical Evaluation of Language Fundamentals Preschool-2 Sentence Structure Subtest (CELF-P2-SS):** standardized measure of	**Clinical Evaluation of Language Fundamentals Preschool-2 Expressive Vocabulary Subtest (CELF-P2-EV):** standardized measure of expressive vocabulary knowledge *Effect*: Tier 1: −0.03 (*p*=.77); Tier 2 Basic: −0.20 (*p*=.75); Tier 2 Enhanced: −0.17 (*p*=.74)	**1. Teaching Together Taught Vocabulary Test**: researcher-created measure of receptive vocabulary knowledge of instructed words *Effect*: Tier 1: 0.04 (*p*=.86); Tier 2 Basic: 0.04 (*p*=.87); Tier 2 Enhanced: 0.46 (*p*<.05) **2. Peabody Picture Vocabulary Test - 4 (PPVT-IV):** standardized measure of receptive vocabulary knowledge *Effect:* Tier 1: 0.39 (*p*=.10); Tier 2 Basic: 0.15 (*p*=.48); Tier 2 Enhanced: 0.09 (*p*=.65)

				comprehension of spoken sentences of varied complexity *Effect:* Tier 1: 0.13 (*p*=.48); Tier 2 Basic: 0.11 (*p*=.73); Tier 2 Enhanced: 0.23 (*p*=.72) **4. Clinical Evaluation of Language Fundamentals Preschool-2 Word Structure Subtest (CELF-P2-WS):** standardized measure of knowledge of morphological rules and use of subjective, objective and reflexive pronouns *Effect:* Tier 1: −0.11 (*p*=.32); Tier 2 Basic: 0.04 (*p*=.93); Tier 2 Enhanced: 0.08 (*p*=.71)		

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
Zucker et al., (2019)	Randomized waitlist control design (pilot)	1. Developing Talkers Tiered Academic Language Curriculum 2. Waitlist control group	N/A	N/A	**CIRCLE Progress Monitoring System Vocabulary Naming / Rapid Vocabulary:** measure of expressive vocabulary fluency for which children named as many common objects as possible in 60 seconds; used to determine Tier 2 eligibility and as a distal/basic expressive vocabulary outcome *Effect*: No intervention effect. Pre-K control group improved from *M*=15.18 to *M*=27.19; Developing Talkers intervention group improved from *M*=14.91 to *M*=27.40. Effect	1. **Developing Talkers Vocabulary Inventory: Taught Words**: researcher-created measure of receptive vocabulary knowledge of 30 instructed words for which children pointed to a picture representing each word (2 foils) *Effect*: A) Intervention Effects: Large positive intervention effect. Pre-K (post-test only for control): control *M*=16.80, intervention *M*=21.50, effect estimate=4.77, *p*<.01, Cohen's *d*=1.29 B) Within Developing Talkers Group Tier 2 Instruction Effects; Pre-K Tier 1 only students improved from *M*=13.90 to *M*=22.99; Tier 1+Tier 2 students improved from *M*=11.22 to *M*=19.60; *b*=0.20, *p*=.80, Cohen's *d*=0.05; Kindergarten students benefitted more from Tier 2 instruction, but

Study	Study Design	Intervention and Comparison Conditions	Composite Outcomes:	Oral Language Outcome(s)	Expressive Vocabulary Knowledge Outcome(s)	Receptive Vocabulary Knowledge Outcome(s):
					estimate=0.49, *p*=.68, Cohen's *d*=.16	possibly due to increased exposure and adherence to the intervention 2. **Developing Talkers Vocabulary Inventory: Exposure-Only Words**: researcher-developed measure of receptive vocabulary knowledge of 11 academic words that appeared in Developing Talkers texts but were not explicitly taught for which children pointed to a picture representing each word (2 foils) *Effect*: Positive intervention effect for exposure-only words. Pre-K (post-test only for control): control *M*=5.38, intervention *M*=6.95, *b*=1.60, *p*<.05; intervention students scored higher on taught words than exposure-only words

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