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Shared Book Reading for Spanish-Speaking Emergent Bilinguals: A Review of Experimental Studies

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It is expected that all students in the United States learn to read English well. This task is more complex for emergent bilinguals (EBs), the majority of whom speak Spanish, who are simultaneously developing their English language proficiency. Although several syntheses have documented the positive effects of shared book reading (SBR) in school settings on students' language growth, the majority of these have either not included EBs or addressed their participants' language learner status. In this review, we sought to identify all peer-reviewed experimental study reports examining the effects of SBR on language-related outcomes for Spanish-speaking EBs. We identified 17 relevant studies, 11 of which we determined met What *Works Clearinghouse* TM *(WWC) quality standards with or without reservations.* Of these, 10 also demonstrated statistically significant effects on at least one language-related outcome. Included studies primarily examined vocabulary outcomes, with mostly medium to large effect sizes found on researcherdesigned (RD) measures. We reported on components found across different SBR interventions, and made recommendations for practice and future research.

KEYWORDS: shared book reading, emergent bilinguals, language outcomes, review

It is expected that all children in U.S. public schools learn to read and write English well. This is exemplified by the Common Core Standards, adopted by 41 states, which title the standards relating to literacy as the "Standards for *English* Language Arts" (emphasis added; National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010). The task of learning to read in English is more complex for students who are also learning to speak English than for those who are already proficient English speakers (Goldenberg, 2020). Not only must emergent bilingual (EBs) master English decoding skills, they must also develop sufficient English language proficiency to understand

what they are reading. One common classroom practice, shared book reading (SBR), has been found to have positive effects on students' English language skills, including those students who are learning English as an additional language (Fitton et al., 2018). EBs are a diverse subpopulation of U.S. students, reflected in the different languages they speak—over 400 different languages recorded in 2015 (Bialik et al., 2018). Nevertheless, the majority spoke Spanish at home—77%. The purpose of this review was to synthesize experimental study findings on SBR with Spanish-speaking EBs in school-based educational settings. Specifically, we sought to examine studies' reported language-related outcomes and the examined SBR interventions' components. Based on these findings, we make recommendations regarding classroom practice and identify potential areas of future research.

Terminology Used in This Article

Approximately 10% of U.S. students speak a language other than English at home and are learning English as an additional language (Hussar et al., 2020). This population of students is referred to with a variety of labels, such as English learner (EL), English language learner (ELL) or limited English proficient (LEP). We use the term EB in this article to recognize that these students are likely to be proficient in their home language, a valuable resource they bring to their educational experience, and that their English language acquisition is a reflection of their emergent bilingualism (O. García, 2009). Although EB includes the term bilingual, we recognize that some students may in fact be multilingual, speaking more than two languages. We also use EB with the caveat that it does not include students developing bilingualism who speak English at home, such as through a dual-language immersion program. Although we recognize the value of their developing bilingualism, in this article we use EB to refer to those students who are still developing their English proficiency and legally entitled to English language services.

The student population of interest in this article are Spanish-speaking EBs. This group overlaps with, but does not correspond completely to, students who are considered Hispanic/Latino/a/x. Government-generated reports, such The Condition of Education (Hussar et al., 2020) typically use the term Hispanic to refer to the ethnicity of someone who traces their origin to a Spanish-speaking country, such as Cuba, Mexico, and other countries in Central and South America. People originating from Brazil do not generally fall under the classification of Hispanic, as Brazil is a Portuguese-speaking country (Valdeón, 2013). The term Latino/a derives from Latin America and includes people descended from most Central and South American countries, including Brazil. People from Spain, however, are not typically considered Latino/a. As noted by I. García (2020), the term Hispanic highlights the language, while Latino/a emphasizes the geography. A fairly recent term, Latinx, has been coined in response to the gendered nature of the term Latino. It is the least-used term among people who consider themselves Hispanic/Latino/a/x, but gaining in popularity. In this article, when referring to home language, we use the term Spanish-speaking. When referring to reports and surveys conducted by others regarding ethnicity, we use the terms used by the authors.

Common School Contexts for Spanish-Speaking EBs

Spanish-speaking EBs in the United States have historically been educated in more racially segregated schools, with fewer resources, larger student-to-teacher ratios, and less qualified teachers. In an early analysis of disparities between White students and students of other races and ethnicities, Boozer et al. (1992) found that Hispanic students attended schools with larger student-to-teacher ratios than Black or White students. Hispanic students were also found to be in more segregated settings, or "racially isolated" (p. 9) as described by the authors. Schools with higher concentrations of minoritized students have tended to have larger class sizes, fewer resources, curricula of poorer quality, and less qualified teachers (Darling-Hammond, 1998).

These trends continue to present times: Schaeffer (2021) reported that for the 2018–2019 school year, 56% of Hispanic students attended schools where more than 50% of the students were also Hispanic. In addition to these more segregated contexts, Latino students tend to attend schools where 75% or more of these classmates are from families with low incomes or experiencing poverty (Boschma & Brownsein, 2016). Considering that EBs also tend to attend schools with fewer resources and with large percentages of the student body experiencing poverty (National Academies of Sciences, Engineering, and Medicine, 2017), these trends translate into the typical school context for Spanish-speaking EBs in recent times: schools with fewer financial resources, less qualified teachers, larger class sizes, and with other Spanish speakers experiencing poverty.

Academic Achievement for Spanish-Speaking EBs

Spanish-speaking EBs also experience less academic success than their peers of other ethnicities and English language proficiency status. On the 2019 NAEP Fourth Grade Reading Assessment, 68% of Hispanic ELL students scored at a below basic level, compared to 24% of White, not ELL students. The discrepancies were greater for older students: 74% of eighth-grade Hispanic ELLs scored at below basic compared to 19% of White, not ELL students.

Early reading difficulties can translate into later academic failure. Hernandez (2011) found that children who were not reading proficiently by third grade were four times more likely than proficient readers to not graduate high school by age 19. Although the dropout rate for Hispanic students has decreased since 2010, their rate of 7.7% in 2019 was higher than that observed for White students (4.1%; Irwin et al., 2021). Hispanic males were more likely to drop out than Hispanic females (9.3% versus 6.0%), with foreign-born Hispanic students having a dropout rate of 16.7% (compared to 4.1% of foreign-born White students). As learning to read well early in a child's educational career is an important predictor of later academic (Cunningham & Stanovich, 1997; Sparks et al., 2014) and nonacademic outcomes (Crawford & Cribb, 2015; Shuey & Kankaraš, 2018), it is essential that Spanish-speaking EBs receive instruction that promotes their reading development.

EBs Learning to Read English

The Simple View of Reading (SVR; Gough & Tunmer, 1986; Hoover & Gough, 1990; Hoover & Tunmer, 2018) provides a helpful framework for considering the

task facing EBs learning to read English. This framework, although considered by some to be incomplete (e.g., Duke & Cartwright, 2021; Taboada Barber et al., 2021), explains reading comprehension simply: It is a product of two components, word recognition or decoding, and linguistic or language comprehension. Both components are necessary, but neither is sufficient for proficient reading comprehension. Scarborough (2002) expressed a similar idea in what has come to be known as the Reading Rope, which illustrated skilled reading as strands of language comprehension and word recognition, woven together. Under these frameworks, learning to read English is in many ways similar for EBs and proficient English speakers (Goldenberg, 2020). Similar to all emergent readers, EBs must develop their English word recognition or decoding skills. This means they must develop sufficient phonemic awareness, learn how the alphabetic principle applies in English, and begin to apply this knowledge in English decoding. Also similar to all readers, to understand what they are reading, EBs must have sufficient English oral language comprehension that when they turn those printed letters into spoken words, they know what those words mean. All children continue to develop their oral language skills throughout their school career. Indeed, some aspects of language such as vocabulary have been described as "unconstrained skills" (Paris, 2005, p. 188), as they continue to develop throughout our lifetime (Kamil & Hiebert, 2005). Nevertheless, students who are classified in schools as EL or LEP are logically likely to have less English oral language comprehension than those considered English proficient. Effective English reading instruction and intervention for these students should support their unique language needs as they are simultaneously developing their English decoding skills.

Oral Language Skills

Oral language skills, as a construct, include many subcomponents. These components are often conceptualized as belonging to either the form, content, or use of language, and further categorized as belonging to five systems: phonology, morphology, syntax, semantics, and pragmatics (Soifer, 2011). Phonology, morphology, and syntax describe the form of a language. *Phonology refers* to the sound system, *morphology* to how the smallest units of meaning (i.e., morphemes) combine to make words, and *syntax* to how words are organized in sentences. *Semantics* refers to the language content, or the meanings of words and how they relate to one another to express concepts. *Pragmatics* describes how we use language: our purposes in using language, our styles of communication for particular contexts, and norms of conversation or discourse. These language components can be further described as receptive (i.e., what one is able to understand) and expressive (i.e., what one is able to communicate).

Commonly used oral language assessments tap into different components. For example, the commonly used Peabody Picture Vocabulary Test (PPVT; Dunn & Dunn, 2007) assesses receptive English oral vocabulary: The test participant hears a prompt such as "Point to the predator" and then selects one picture out of four that depicts a predator. Other assessments, such as the Clinical Evaluation of Language Fundamentals (CELF; Wiig et al., 2013) has subtests that measure different areas of language, such as sentence comprehension, word structure, understanding spoken paragraphs, and word definitions. In addition to these

standardized measures, researchers often develop researcher-designed (RD) language assessments that are proximal to their interventions (e.g., Coyne et al., 2010). Researchers also often report descriptive measures from natural language samples, such as mean length of utterance (MLU), or number of different words (NDW; Barokova & Tager-Flusberg, 2020; Bedore et al., 2010).

Most oral language assessments are administered in only one language—for example, the PPVT (Dunn & Dunn, 2007) is in English, whereas the Test de Vocabulario en Imágenes Peabody (TVIP; Dunn et al., 1986) assesses receptive oral vocabulary in Spanish. There are issues of validity with these assessments, however, as they were normed with monolingual children and not bilingual children (Peña et al., 2012). EBs may have uneven patterns of vocabulary knowledge—for example, a young EB may have a rich Spanish vocabulary of items and concepts encountered in the home but know only a few of those words in English. This same child, who attends an English-only kindergarten, may also have a rich English vocabulary related to school concepts but not have those labels in Spanish. In response to this consideration, some assessments aim to measure what has been termed *conceptual vocabulary*. In these assessments, an answer in either language is acceptable. This is believed to provide a more accurate representation of an EB's complete vocabulary inventory.

SBR

SBR is a common instructional practice that has been linked to positive effects on children's oral language development (Lonigan et al., 2008; Mol et al., 2009). SBR is an umbrella term that encompasses a wide variety of book reading experiences. In its most basic sense, SBR involves a reader reading aloud a text to one or more listeners. SBR can be passive, with the reader listening quietly to the text. SBR is more frequently interactive, however: The reader presents opportunities for the listener(s) to engage with the text, such as by answering questions or acting out parts of the text. Blok (1999) described the differences between interactive and passive SBR as "talking with the child and talking to the child" (p. 350).

With dialogic reading (DR), a particular type of SBR, the goal is to pass the storytelling role from the adult reader to the child over the course of repeated readings (U.S. Department of Education, 2007). The reader encourages child interaction through a variety of prompts represented by the acronym CROWD: completion, recall, open-ended, "wh-" questions (e.g., what, where), and distancing. These prompts are implemented within an interaction procedure represented by the acronym PEER. The reader first prompts the child to respond to the book with one of the CROWD prompts. The reader then evaluates the response, expands on the response, and then repeats the prompt, which supports the child to produce more oral language. Whitehurst et al. (1988) first documented the positive effects of DR on child oral language, which has since been examined in a variety of studies (e.g., Hargrave & Sénéchal, 2000; Lonigan et al., 1999; Valdez-Menchaca & Whitehurst, 1992; Wasik & Bond, 2001).

SBR Components

Frequently, SBR sessions include supplemental components that go beyond simply reading the text, and these activities can be described as occurring before,

during, and after the read-aloud (Morrow & Brittain, 2003). SBR is often used as a vehicle to teach vocabulary. In such cases, the read-aloud experience may include previewing images of the targeted vocabulary words before the read-aloud, pausing to share simplified definitions during the read-aloud, and reviewing the vocabulary words after the read-aloud (e.g., Zucker et al., 2019). Teachers often have discussions about the text during and after the read-aloud (Fisher et al., 2004; Håland et al., McCaffrey & Hisrich, 2017). Other common activities include setting a purpose for listening before the read-aloud and retelling the book after the read-aloud (Morrow & Brittain, 2003). SBR as an ongoing practice often includes repeated readings of the same text over several days. Teacher questionnaires and observations in classrooms have shown variation in the use of these supplemental components (Fisher et al., 2004; McCaffrey & Hisrich, 2017), demonstrating that there is no universally implemented way to conduct SBR.

Syntheses of Studies on SBR on Language Development

There is a substantial research base documenting the effects of SBR on language-related outcomes, including several meta-analyses conducted to synthesize the effects of SBR in school settings and determine an estimated overall effect size (ES). An ES is a measure of the magnitude of the effect of the treatment or intervention being examined (Ellis, 2010): It goes beyond whether any statistically significant difference was found to quantify the impact of that difference. Across the meta-analyses, researchers found small to medium ES for languagerelated outcomes. Blok (1999) authored one of the first meta-analyses examining the effects of SBR in school settings for young children and obtained an overall ES of d = 0.63 for oral language, which can be considered a medium effect. In a later synthesis, Mol et al. (2009) found small to moderate ESs for language-related outcomes: d = 0.45 for receptive vocabulary; d = 0.62 for expressive vocabulary; and d = 0.54 for oral language, which was operationalized as a composite measure of vocabulary, syntax, and story comprehension outcomes. Swanson et al. (2011) focused their meta-analysis on the effects of SBR in schools for children that were considered at-risk for reading difficulties. They examined effects on language and literacy-related outcomes and found statistically significant differences on the following: language, d = 0.29; phonological awareness, d = 0.78; print concepts, d = 0.86 (p = .010); reading comprehension, d = 0.0.70; vocabulary, d = 1.02.

The What Works ClearinghouseTM (WWC) has also conducted syntheses to determine the effectiveness of SBR for preschool children. In 2015, the WWC updated their synthesis on the effects of SBR in U.S. early education settings and found mixed results of SBR on language development and comprehension, which included vocabulary outcomes (U.S. Department of Education, 2015). They reported ESs of 0.08 and 0.20 for language development and comprehension, respectively. They also calculated improvement indices, which are estimates of an individual's change in percentile rank after participating in the intervention. They found improvement indices of +3 and +8 for language development and comprehension, respectively. The WWC had previously conducted a separate synthesis evaluating the effects of DR (U.S. Department of Education, 2007). They determined there was sufficient evidence of positive effects of dialogic SBR on oral

language outcomes in preschool children, and calculated an improvement index of +19. In this earlier review, a separate domain was not considered for comprehension, and ESs were not calculated.

The previous syntheses reported minimum details related to SBR supplemental components. In their synthesis, Mol et al. (2009) classified SBR as dialogic, interactive, or interactive with additional activities. They found the largest ESs were associated with interactive SBR without additional activities (i.e., d = 1.01 for oral language, d = 1.36 for expressive vocabulary, and d = 1.360.98 for receptive vocabulary). These findings were confounded, however, with the implementer: Most interactive SBR interventions with additional activities were implemented by teachers, whereas SBR interventions without additional activities were mostly implemented by researchers. Mol et al. found that implementation by researchers tended to result in larger ESs than implementations by teachers. Swanson et al. (2011) categorized the SBR interventions in their review into six types: dialogic reading, repeated reading, limited questioning, computer-assisted, extended vocabulary, or other. Dialogic reading was set as the reference category for each analysis. Some statistically significant differences were found between intervention types' effects on outcomes. Repeated reading interventions resulted in a larger effect size on phonological awareness (d = 2.59), and computer-assisted interventions resulted in a larger effect size on reading comprehension (d = 1.27). For vocabulary, interventions categorized as *other* and computer-assisted resulted in larger effect sizes, d = 2.18 and d = 1.72, respectively. Swanson et al.'s analyses of intervention types on outcomes were limited, however, in that not every type of intervention was represented in each outcome group, and for some intervention types there were few studies per outcome. For example, repeated reading, limited questioning, and computer-assisted interventions were only examined in two studies each. Thus, the previously described syntheses offer little guidance on how SBR sessions should be conducted in school settings.

In addition to the meta-analyses described above, Karweit and Wasik (1996) focused a narrative review on SBR in preschool settings with children ages 4 to 5. Their stated goal was to determine the effects of story reading programs on disadvantaged preschoolers, whom they defined as having a low socioeconomic status. Karweit and Wasik examined SBR components and documented four trends related to effective SBR: group size, rereading, vocabulary instruction, and teacher interaction. Although SBR conducted in whole-group settings was effective, they determined that SBR in small group-settings was more beneficial. The effects of rereading depended on the characteristics of the child (e.g., their previous experiences with stories), and thus they recommended repeated readings occasionally. Vocabulary instruction was described as including explicit instruction, with supports such as synonym phrases, role-playing, visual images, and reviewing the targeted words after the read-aloud. Teacher interaction in the form of questions were determined to be helpful, but only if questions were of a certain kind: Questions that required predictive or analytical thinking were more effective than literal questions.

In the previously described syntheses, included studies were restricted to those with proficient English speaker participants, or participants' English language

proficiency status was not addressed. Fitton et al. (2018) conducted one of the first meta-analyses on the effects of SBR with EBs, referred to in their report as ELs. Although narrower in scope by only considering the EB population, it included a larger age range—students up to 12 years of age. It also included unpublished studies and SBR interventions conducted at home or in school settings. Fitton et al. calculated an overall ES for all outcomes, including literacy, oral language, and reading attitudes. The literacy outcomes category included both reading and writing outcomes, with the reading subcategory encompassing diverse constructs, such as print knowledge, phonological awareness, and reading comprehension. The researchers found a small overall ES, g = 0.28, with large heterogeneity, $Q_E(53) = 253.78$, $I^2 = 79.12$. Fitton et al. further examined moderators and did not find significant differences between SBR interventions implemented only in English and those implemented bilingually or in the home language, although they did find high levels of heterogeneity in the results. They also did not find evidence of differences between child characteristics, including home language (i.e., Spanish versus other), child age, or socioeconomic status, although high heterogeneity was noted in these analyses as well.

The Current Study

Despite the substantial research base on SBR, there are several remaining areas to be investigated. Most of the previous syntheses either did not include or did not address students' language learner status; thus, it is uncertain that their results generalize to Spanish-speaking EBs. The meta-analysis conducted by Fitton et al. (2018), which did examine the effects of SBR effects on EBs, included both home- and school-based interventions. Their findings, therefore, cannot be easily generalized to SBR in school settings.

Previous syntheses were also limited in their description of intervention components. Blok (1999) did not address components in the SBR interventions included in his corpus of studies. Mol et al. (2009) classified the studies included in their corpus into three categories (i.e., dialogic, interactive, or interactive with additional activities) but did not give more specific details about the components implemented in their included studies. Fitton et al. (2018) examined but did not find differences for the language used in the intervention (i.e., English compared to a home language or bilingual condition), although their results were characterized by high heterogeneity. Sandercock (2011) cautioned that large heterogeneity in a meta-analysis could indicate that the studies are too diverse, and thus it may be inappropriate to estimate an overall ES across their results. Karweit and Wasik (1996) reported on trends in intervention components found, specifically rereading, vocabulary instruction, and teacher interaction. Vocabulary instruction, however, was used as a broad term that referred to diverse activities. As the term SBR is also a broad term used to encompass a wide range of activities, information about the components implemented in interventions with demonstrated effectiveness could be of interest to practitioners and others wanting to bridge the research to practice gap.

To address these gaps in the extant research base, we conducted this review to synthesize findings from studies on the effects of SBR with Spanish-speaking EBs. The specific research questions (RQ) we sought to address were as follows:

- RQ1. What are the characteristics of SBR experimental studies that have been examined with students who are Spanish-speaking EBs?
- RQ2. What language-related results from SBR with Spanish-speaking EBs studies have been reported?
- RQ3. What components have been included with SBR interventions, particularly those examined in studies that have met WWC quality standards and demonstrated statistically significant differences?

Method

Study Identification

The first author conceptualized the study inclusion criteria using the PICOS framework: participants, intervention, comparison condition, outcomes, and settings (McKenzie et al., 2020; see Table 1). For inclusion, researchers needed to report disaggregated results for Spanish-speaking EBs, or, if the results were not disaggregated, Spanish-speaking EBs needed to make up at least 50% of the participant sample. These criteria were chosen to ensure that the results reported were obtained with the population of interest. Inclusion criteria did not include participant age or disability status limitations. The study had to examine SBR, either as an intervention or as a comparison condition. SBR was defined in the most inclusive sense of an adult reading aloud a book to a child; thus, even passive SBR experiences were included. As we were interested in causal effects of SBR on student outcomes, only studies implementing experimental designs (i.e., randomized-control trials, quasi-experimental designs, and single-case designs [SCDs]) were included (Creswell, 2015). The criteria for outcomes were broadly defined as relating to language and could include vocabulary, retelling, and general measurements of language in English or Spanish. As one possible use of these results is to inform school practices with Spanish-speaking EB students in the United States, settings were limited to school settings within the United States. Home-based interventions were not considered, although if the intervention had school and home components, the report was included. This protocol was not preregistered.

To locate relevant study reports, the first author composed lists of terms related to the participants, intervention, comparison conditions, and outcomes criteria (see Table S1 in the online version of the journal for the terms and sample search strategy). She then searched four databases on June 16, 2020: Academic Search Premier, PsycINFO, the Educational Resources Information Center (ERIC), and the Web of Science. These databases were selected to capture study reports published in journals across diverse fields. Both Academic Search Premier and the Web of Science are considered reliable databases for interdisciplinary research, PsycINFO is a reputable source for social sciences and behavioral research, and ERIC is a recognized source for educational research (American Psychological Association, 2021; Clarivate, 2021; EBSCO Information Services, 2021a, 2021b). Results were limited to those studies published in English and in peer-refereed journals, and then the citations were imported into EndNote X9 (Clarivate Analytics, 2020) for management. The first and second author then screened each title and abstract independently for inclusion: Discrepancies were resolved through consensus. We then completed a full-text review of each remaining article independently.

TABLE 1
PICOS inclusion criteria

Category	Inclusion	Exclusion	Exemplars of excluded works
Participants	Spanish-speaking emergent bilinguals (EBs) • More than 50% of the sample • Or data is disaggregated for Spanish-speaking EBs	 EBs with home language not specified Spanish-speaking EBs not more than 50% of the sample Data is not disaggregated for Spanish-speaking EBs 	Chlapana, E., & Tafa, E. (2014). Effective practices to enhance immigrant kindergarteners' second language vocabulary learning through storybook reading. <i>Reading and Writing</i> , 27(9), 1619–1640.
Intervention	Shared book reading (SBR) as the vehicle for intervention or as an active comparison condition An adult reading aloud a book to at least one child	Vocabulary or language interventions that did not employ SBR	Spencer, T. D., Petersen, D. B., Slocum, T. A., & Allen, M. M. (2015). Large group narrative intervention in Head Start preschools: Implications for response to intervention. <i>Journal of Early Childhood Research</i> , 13(2), 196–217.
Comparison	Experimental designs, e.g., Randomized control trials Quasi-experimental Single-case designs	Nonexperimental designs, e.g., • Case studies • Syntheses of prior research	Larson, A. L., Cycyk, L. M., Carta, J. J., Hammer, C. S., Baralt, M., Uchikoshi, Y., An, Z. G., & Wood, C. (2020). A systematic review of language-focused interventions for young children from culturally and linguistically diverse backgrounds. <i>Early Childhood Research Quarterly</i> , 50, 157–178.
Outcome	Student language-related outcomes, in English or Spanish, e.g., Vocabulary Syntax Narrative language	Outcomes not directly related to student language, e.g • Decoding skills • Oral reading fluency • Teacher practices	Pollard-Durodola, S. D., González, J. E., Simmons, D. C., Taylor, A. B., Davis, M. J., Simmons, L., & Nava-Walichowski, M. (2012). An examination of preschool teachers' shared book reading practices in Spanish: Before and after instructional guidance. <i>Bilingual Research Journal</i> , 35(1), 5–31.
Setting	School-based educational settings, e.g., Schools Preschools Head Start Centers United States	 Home-based interventions Outside the United States 	Wessels, S. (2014). Supporting English and Spanish literacy through a family literacy program. School Community Journal, 24(2), 147–163.

Data Extraction

The first author recorded key information from each study report in a spreadsheet. See Table S2 in the online version of the journal for a description of data extracted. A combination of inductive and deductive coding was used. A priori categories that were deductively coded included study characteristics, participant characteristics, and intervention characteristics. An inductive coding procedure was used to document the outcomes and intervention components. To document the outcomes, the first author examined all study reports and listed reported outcomes. Reported effect sizes, if any, were categorized as negligible, small, medium, or large according to guidelines detailed by Ellis (2010). After examining the outcomes, these categories were determined: language—English, Spanish, or bilingual/conceptual; oral or written (i.e., reading) language; expressive or receptive language outcomes; researcher-designed, standardized, or descriptive (e.g., MLU); vocabulary, retelling, phonological awareness, or general language outcomes. The study reports were then reexamined, and these categories were coded for each study on a spreadsheet. Intervention components were documented in a similar way: The first author examined all reports and listed intervention components. These components were then classified into general support components and those targeting vocabulary learning. The studies were then reexamined, and these components were coded on a spreadsheet. Components with the potential to be particularly beneficial for Spanish-speaking EBs (i.e., that leveraged home language) were further identified and coded.

The first author assessed the quality of the included studies using the WWC Standards Handbooks, Version 4.1 (WWC, 2020). These standards have been updated since the WWC reviews of SBR and dialogic reading, described previously. These standards aim to assess the internal validity of studies or the ability to determine causal effects within the study sample. Standards are organized into steps that are defined by a question, and each step is connected in a flowchart to determine whether the study meets standards without reservations, with reservations, or does not meet standards. The first author examined each study according to the questions and standards stated in the WWC handbook, and conclusions for each step and overall ratings were documented in a spreadsheet. SBR interventions included in studies that met WWC quality standards with or without reservations were classified as Category 1 SBR interventions. Of these, interventions in studies that demonstrated statistically significant effects on at least one outcome were classified as Category 2 interventions. The components of these interventions were further analyzed by comparing the interventions used with different ages of participants (i.e., preschool-aged vs. elementary-aged).

Results

The searches resulted in 30 unique articles after deduplication. The first and second authors screened each title and abstract independently and obtained 90% agreement: Discrepancies were resolved by discussing PICOS criteria and reaching consensus. The authors then independently completed a full-text review of the 15 remaining articles with 100% agreement. Two additional articles that did not appear in the database searches were also included as they met the PICOS criteria: These

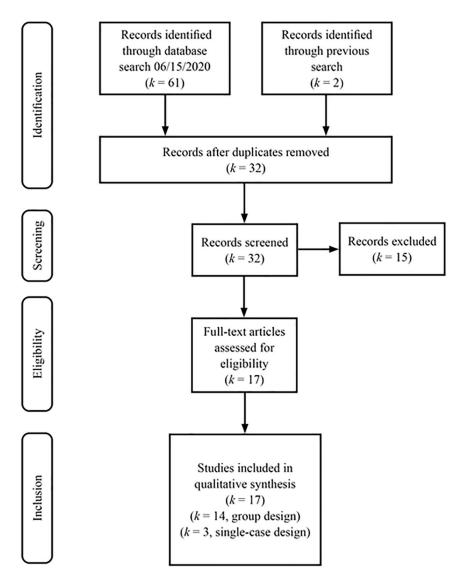


FIGURE 1. PRISMA (Moher et al., 2009) flow diagram.

articles had been identified by the first author in a previous search (Pico, 2020). See Figure 1 for a Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA; Moher et al., 2009) flow diagram of the study selection.

Most of the studies included in this review examined the effects of SBR with preschool-aged children. SBR was commonly used as a vehicle to teach

vocabulary, and most outcome measures used were researcher-designed (RD) assessments on targeted vocabulary words. Statistically significant differences, with medium to large effect sizes, were found in favor of SBR conditions on RD measures of vocabulary in many studies. No statistically significant differences, however, were found on standardized measures of vocabulary. A relatively small percentage of studies examined other language-related outcomes, and these were quite varied. Although components varied between the included SBR interventions, there were several commonalities, such as interactive reading styles, preteaching vocabulary words, and highlighting cognates. Findings related to each research question are detailed more below.

RQ1: Studies' Characteristics

The study selection process resulted in a corpus of 17 studies, with 14 employing a group design with comparison conditions and 3 employing single-case designs. In this section, we describe the participants, the nature of each study, and study quality. See Table S3 in the online version of the journal for study characteristics.

Included participants

Across all studies, there were 2,356 child participants, with approximately 1,671 (71%) receiving some form of SBR intervention. This number is estimated, as one study (Goodrich et al., 2017) reported the number of schools but not the exact number of participants in each comparison group. Although age was not used as an inclusion criterion, all participants were either of preschool (n = 1.507, 64%) or elementary school age (n = 849, 36%). Preschool was defined as prior to kindergarten and elementary age being kindergarten through fifth grade. All of the studies except two (Correa et al., 2015; Spooner et al., 2009) indicated that the majority or all of their student participants were of lower-income families or experiencing poverty. For several studies this was indicated by stating that the students' families met Head Start income-level criteria. Others indicated that the school district or school the children attended had high incidences of poverty. Of the total participants, 204 (9%) were identified as having a disability: 1 with a moderate intellectual disability (Spooner et al., 2009) and 203 with speech or language impairment (Correa et al., 2015; Restrepo et al., 2013). Two studies (Leacox & Jackson, 2014; Lugo-Neris et al., 2010) included children whose family members were migrant farmworkers (n = 46, 2%)

Group design studies with preschool-aged participants

The majority of the group design studies (k = 10, 71%) examined SBR with preschool-aged participants. Two of these (Goodrich et al., 2017; Restrepo et al., 2010) examined larger interventions that had SBR as a smaller component. Goodrich et al. (2017) compared the Literacy Express Preschool Curriculum (LEPC; Lonigan et al., 2005) accompanied by varying levels of professional development support, with a commonly implemented curriculum in a business-as-usual (BAU) condition. The LPEC curriculum implemented three types of small group instructional activities, including dialogic reading, phonological awareness (PA) activities, and print knowledge activities. Restrepo et al. (2010)

examined a Spanish supplemental program that included dialogic reading, letter activities, and PA activities.

The remaining eight group design studies with preschool-aged participants examined an SBR condition with either a control condition or a different SBR condition. Pollard-Durodola et al. (2016) compared the Words of Oral Reading and Language Development (WORLD) intervention, described as *content-enriched*, with a BAU SBR condition. The WORLD intervention consisted of pairs of conceptually related narrative and informational texts, embedded definitions during the SBR of semantically related words, and repeated reviews of key concepts. Participants participated in sessions of approximately 20 minutes, five times a week for 18 weeks. In a follow-up study, Pollard-Durodola et al. (2018) compared this same intervention to an explicit vocabulary condition that did not involve SBR.

Méndez et al. (2015, 2018) compared the language of implementation in otherwise similar SBR conditions, an English culturally responsive (ECR) condition and a culturally and linguistically responsive condition (CLR). Both conditions incorporated culturally relevant books, and before, during, and after SBR activities. The ECR condition was conducted entirely in English, whereas the CLR condition incorporated a bilingual modality: The SBR was conducted in Spanish on Day 1, on Day 2 targeted words were introduced first in Spanish and then in English, and on Day 3 the SBR was conducted in English. Each session was approximately 20 minutes long, three times a week for 5 weeks.

Lugo-Neris et al. (2010) and Leacox and Jackson (2014) examined the effects of SBR with Spanish word bridging for migrant children. Both studies implemented a within-subjects design, so that participants were exposed to both intervention conditions. Lugo-Neris et al. (2010) compared an English SBR where word expansions or explanations were provided in English, with an English SBR conditions where word expansions were provided in Spanish, what the authors termed *bridging*. Leacox and Jackson (2014) examined the effects of Spanish-bridging provided through an electronic book, compared to a passive English SBR condition. Each participant participated in three sessions of approximately 20 minutes in each condition. In the Spanish-bridging condition, the book was read aloud in English on the 1st day. On the 2nd and 3rd days, the students listened to an electronic version of the book.

The remaining two group-design studies with preschool-aged participants were very different from those previously described. Restrepo et al. (2013) examined the effects of an English-only or a bilingual SBR condition with EBs with language impairment. The conditions were also compared to two other active control conditions: a bilingual math and an English math condition. The SBR conditions included alternating narrative and expository texts, numerous opportunities to use targeted vocabulary words, and dialogic reading strategies. Students participated in four sessions per week, 45 minutes each, for 12 weeks. Van Horn and Kan (2016) compared children's ability to fast map meaning to unfamiliar nouns in two conditions, a narrated cartoon condition and a narrated wordless picture book condition, in both English and Spanish. Van Horn and Kan implemented a within-subject design; thus, participants were exposed to both conditions in both languages. The interventions were brief, one session each in each condition and language.

Group design studies with elementary-aged participants

The remaining group design studies (k = 4, 29%) examined SBR with elementary school-aged participants. August et al. (2016, 2018) compared SBR conditions with extended vocabulary instruction and SBR with embedded vocabulary instruction, using within-subjects designs. In August et al.'s (2016) study, targeted vocabulary words were included in informational texts written for this study, and these texts were used for both conditions of SBR with third and fourth grade students. In both conditions, teachers provided an introduction to the book with a picture walk; students were asked a hook or guiding question prior to the readaloud; and after the read-aloud, students worked with peers to answer questions related to the text. Students were also taught about cognates, or words that sound similarly across languages and share a similar meaning. In the embedded vocabulary condition, teachers provided a definition of a vocabulary word after encountering it during SBR. In the extended condition, students were taught the vocabulary words' meanings prior to SBR and asked to listen for the words during the read-aloud. These words were also posted on a word wall, and students completed additional activities related to the words. The SBR sessions for each condition were approximately 60 minutes, five times a week for 5 weeks. August et al. (2018) also compared SBR conditions with extended and embedded vocabulary instruction with second graders and included a passive SBR condition where participants had incidental exposure to vocabulary words. They also examined treatment effects according to word type: concrete cognates, concrete noncognates, abstract cognates, and abstract noncognates. Sessions were approximately 30 minutes, five times a week for 10 weeks. This study had younger participants, students in second grade, and the SBR conditions differed from the previous study.

Cruz de Quirós et al. (2010) compared an SBR intervention named *Story reTelling and higher order thinking for English Language and Literacy Acquisition* (STELLA) with a BAU condition. The STELLA intervention included preteaching targeted vocabulary words prior to SBR, repeated readings of the book, and having students retell the story. Although students had begun participating in STELLA in first grade, Cruz de Quirós et al. examined growth on students' use of story grammar elements during a 6-week period towards the end of students' second-grade year.

Giambo and McKinney (2004) used a passive English SBR condition as a comparison with an English PA intervention. Kindergarten participants in the PA condition received 3 to 4 sessions of approximately 20 minutes for 60 sessions. Participants were taught blending and segmenting at the phoneme level, to connect sounds to letters, and to apply these skills in reading and writing. The passive SBR condition employed in the study was not well described, other than it met school district language arts requirements.

Single-case design studies

Three of the 17 studies (18%) included in the corpus of this review employed single-case design. Correa et al. (2015) used a multiple-probe design to examine the effects of an adapted dialogic reading intervention on four preschool-aged participants' English expressive oral language, vocabulary, and generalized

narration. Both expressive oral language and generalized narration were defined as English words uttered per minute. The oral language dependent variable was defined as occurring during the intervention, and the generalization narration dependent variable referred to words spoken in a generalization probe, when students were asked to retell one of the four books used in the intervention. The vocabulary words examined were 32 imageable Tier 1 and Tier 2 Words (Beck et al., 2013) featured in the books used for the SBR sessions. Participants were asked to name as many words as possible in one minute in an activity called the "Rapid Naming Game."

Spooner et al. (2009) also used a multiple-probe design to examine the effects of a SBR intervention on three skill sets composed of emergent literacy skills (e.g., identify the title, answer a prediction question) related to participation in a one-on-one SBR session. The intervention was designed to incorporate cultural and linguistic considerations, and the skill sets were considered appropriate for the student participant, a girl, age 6, with a moderate intellectual disability. The intervention was implemented by a Spanish-speaking paraprofessional and transitioned through three books, from a Spanish language text, a bilingual text, and a predominantly English text with some Spanish words. In addition to books that the researchers characterized as culturally relevant, the intervention phase also included Spanish instruction and forward chaining, or teaching and reinforcing smaller sub-skills in sequential order.

Huennekens and Xu (2010) examined the effects of a cross-linguistic SBR intervention on two preschool-aged participants' oral language across two settings: whole group and centers at preschool. They used a multiple-baseline design to examine an intervention involving parents reading with the child at home Spanish translations of the same book used for SBR at preschool. The researchers examined the intervention's effect on rate of utterance, length of utterance, frequency of child-initiated responses, and frequency of response to others.

Study quality

We used the WWC standards to determine the quality of the studies included in this review. Of the 14 group design studies included in this review, we determined that 8 (57%) met WWC Group Design Standards Without Reservations see Table 2. We found two group design studies (i.e., Goodrich et al., 2017; Restrepo et al., 2010) to be ineligible under WWC standards as the SBR was a component of a larger intervention with other components; thus, no causal claims can be made on the effects of SBR on the outcomes examined. Pollard-Durodola et al.'s (2016) study met WWC Group Design Standards With Reservations, as there was high differential attrition between the treatment and comparison condition clusters (i.e., classrooms). Three studies did not meet WWC standards as their RD vocabulary measures were overaligned with certain SBR conditions. In Restrepo et al.'s (2013) study, students in the two comparison math conditions were not exposed to the vocabulary words assessed in either English or Spanish, and students in the English-only vocabulary condition were not exposed to the Spanish vocabulary words. Similarly, students in Méndez et al. (2015, 2018) English-only conditions were not exposed to the assessed Spanish vocabulary.

TABLE 2 *Quality ratings determined with WWC standards*

Study	Study type	Rating
August et al., 2016	RCT with cluster- level assignment	Meets WWC Group Design Standards Without Reservations
August et al., 2018	RCT with cluster- level assignment	Meets WWC Group Design Standards Without Reservations
Correa et al., 2015	SCD	Meets WWW SCD Standards With Reservations
Cruz de Quiros et al., 2010	RCT with cluster- level assignment	Meets WWC Group Design Standards Without Reservations
Giambo & McKinney, 2004	RCT with individual- level assignment RCT with cluster-	Meets WWC Group Design Standards Without Reservations
Goodrich et al., 2017	level assignment	Not eligible
Huennekens & Xu, 2010	SCD	Does not meet WWC SCD Standards
Leacox & Jackson, 2014	RCT with individual- level assignment	Meets WWC Group Design Standards Without Reservations
Lugo-Neris et al., 2010	RCT with individual- level assignment	Meets WWC Group Design Standards Without Reservations
Méndez et al., 2015	RCT with individual- level assignment	Does not meet WWC Group Design Standards
Méndez et al., 2018	RCT with individual- level assignment	Does not meet WWC Group Design Standards
Pollard-Durodola et al., 2016	RCT with cluster- level assignment	Meets WWC Group Design Standards With Reservations
Pollard-Durodola et al., 2018	RCT with cluster- level assignment	Meets WWC Group Design Standards Without Reservations
Restrepo et al., 2010	QED	Not Eligible
Restrepo et al., 2013	RCT with individual- level assignment	Does not meet WWC Group Design Standards
Spooner et al., 2009	SCD	Meets WWW SCD Standards With Reservations
Van Horn & Kan, 2016	RCT with individual- level assignment	Meets WWC Group Design Standards Without Reservations

Note. QED = quasi-experimental design; RCT = randomized control trial; SCD = single case design; WWC = What Works Clearinghouse.

Two of the three included SCDs (Correa et al., 2015; Spooner et al., 2009) met standards *With Reservations*. Both implemented a multiple-probe design and did not meet *Without Reservations* criteria as they did not have three consecutive probes in the sessions just prior to introducing the intervention. Huennekens and Xu's (2010) study did not meet WWC SCD standards as there were less than six

phases in their multiple-baseline SCD design: They had only two participants' data to analyze due to participant attrition.

RQ2: Language-Related Results

Our inclusion criterium for study outcomes was broadly defined as being related to language. In this section, we describe the language-related results of found in the included studies. See Table S4 in the online version of the journal for group comparisons and outcomes.

Vocabulary

The majority of the included studies (k = 11, 65%) reported vocabulary outcomes. Some positive effects were found for SBR on RD measures, but none were found for standardized assessments of vocabulary.

Vocabulary outcomes for preschool-aged participants. Eight of the group design studies with preschool-aged participants examined vocabulary outcomes. Three of these (Méndez et al., 2015, 2018; Restrepo et al., 2013) examined the effects of using an English-only or bilingual SBR and found statistically significant differences in favor of the bilingual conditions on RD Spanish vocabulary outcomes. These three studies, however, did not meet WWC quality criteria, as the Spanish vocabulary assessments were overaligned to the bilingual conditions. Some statistically significant differences were also reported for the English vocabulary measures, however, that were not overaligned with the bilingual condition. Méndez et al. (2015, 2018) found statistically significant differences in favor of the bilingual condition for RD measures of English receptive vocabulary, with medium effect sizes (d = 0.66, 0.67). They did not find statistically significant differences on standardized measures, however. Restrepo et al. (2013), who implemented their interventions with children with language impairment, did not find any statistically significant differences between the English-only or bilingual SBR on the RD English or conceptual receptive and expressive vocabulary measures included in their study.

The remaining group design studies that examined vocabulary outcomes and were implemented with preschoolers met WWC criteria. Lugo-Neris et al. (2010) and Leacox and Jackson (2014) used similar RD English vocabulary assessments to measure the effects of SBR with Spanish bridging for migrant children: a simple receptive task, where participants would point to the object named; a simple expressive task, where participants would name the object in a picture; and a more challenging expressive task, where participants would define or describe an object. Lugo-Neris et al. found a statistically significant difference in favor of SBR with Spanish bridging on the more challenging expressive task, with a large effect size ($\eta^2 = 0.22$). No differences were found on simpler receptive and expressive English vocabulary tasks. Contrary to the findings obtained by Lugo-Neris et al., Leacox and Jackson found statistically significant differences in favor of the Spanish bridging condition on the simpler vocabulary tasks, with medium to large effect sizes (d = 0.78, 1.12) and not on the more complex task. It is worth noting that in the Lugo-Neris et al. study that students in the comparison condition

received word expansions in English; whereas in the Leacox and Jackson study, they did not.

Pollard-Durodola et al. (2016) found statistically significant differences in favor of their content-enriched SBR condition compared to a BAU SBR condition on RD English receptive and expressive measures; no differences were found, however, on standardized measures. In a follow-up study, however, Pollard-Durodola et al. (2018) did not find statistically significant differences when the SBR condition was compared to an explicit vocabulary instruction condition. Van Horn and Kan (2016) also did not find statistically significant differences when comparing the effects of SBR on fast-mapping with a narrated cartoon condition, in either language.

One SCD study included vocabulary as an outcome measure and met WWC quality criteria. Correa et al. (2015) examined English vocabulary in their multiple-probe SCD, but only one of four participants demonstrated evidence of improvement, and he received a modified version of the intervention with additional vocabulary practice.

Vocabulary outcomes for elementary school-aged participants. Three of the four group design studies implemented with elementary-aged students examined effects on vocabulary, and all three met WWC quality criteria. Two of these (August et al., 2016, 2018) found statistically significant differences on RD measures of receptive English vocabulary in favor of an SBR with extended vocabulary instruction compared to an SBR with embedded vocabulary instruction. Both conditions, however, demonstrated advantage over a passive SBR condition with incidental vocabulary exposure (August et al., 2018). Giambo and McKinney (2004) did not find any statistically significant differences between a PA intervention condition and a passive SBR condition on the PPVT-III (Dunn & Dunn, 1997), a standardized measure of receptive vocabulary.

Other language-related results. Only seven of the studies included in this review examined language-related outcomes that were not vocabulary. These outcomes varied greatly, including measures of PA, narrative language, sentence descriptives, and skill sets including both receptive and expressive language.

Four of the group design studies examined language-related outcomes that were not vocabulary. Two of these (Goodrich et al., 2017; Restrepo et al., 2010) compared interventions that included SBR as a subcomponent; thus, they did not meet WWC quality criteria, and no causal claims can be made on the effect of SBR on the outcomes. Goodrich et al. (2017) found a statistically significant difference in favor of their intervention on a standardized measure of PA, specifically elision. On 11 other comparisons, however, no significant differences were found. Restrepo et al. (2010) found statistically significant differences in favor of their Spanish-language intervention on Spanish sentence length and complexity, although they did not find a positive effect on Spanish sentence grammaticality.

The remaining two group design studies that examined other language outcomes with elementary-aged participants did meet WWC quality criteria. Cruz de Quirós et al. (2010) found statistically significant positive effects in favor of their

SBR condition on English expressive narrative language, specifically the inclusion of story grammar elements in story retells. Giambo and McKinney (2004) found a statistically significant difference in favor of a PA intervention condition compared to a passive SBR condition on the oral IDEA Proficiency Test (IPT-I; Ballard et al., 1991)), a standardized measure of English oral language proficiency, with a medium effect size (d = 0.58).

All three SCDs examined other language outcomes that were not vocabulary. Two of these (Correa et al., 2015; Spooner et al., 2015) met WWC quality criteria. In Correa et al.'s (2015) multiple probe SCD, three of the participants demonstrated an immediacy of effect on oral language with an increase in level, and all participants had percentages of nonoverlapping data points (PND) between baseline and intervention phases indicating that the intervention was effective (70%–90%) or very effective (above 90%) according to Scruggs and Mastropieri's (1998) guidelines. Spooner et al. (2009) found evidence that their SBR intervention resulted in improvement across three skill sets for their 6-year-old participant with a moderate intellectual disability, as the mean of correct responses increased of targeted skill sets increased in each phase. These improvements remained after the student was returned to baseline conditions.

Huennekens and Xu (2010), whose study did not meet WWC quality criteria, did not find similar positive results on their outcome measures: rate of utterance, length of utterance, frequency of child-initiated responses, and frequency of response to others. Although the researchers found increases in all outcomes, there was high overlap between baseline and intervention data points, making it difficult to determine if the increases were due to the intervention. Evidence was more compelling when only the last five points of the baseline and intervention phases were considered. The researchers concluded that the lack of immediacy may have been due to the nature of language acquisition: As language skills require more time to develop, effects from an intervention may not appear as immediately.

RQ3: SBR Supplemental Components

As described previously, SBR can vary in regards to the before, during, and after SBR components that are included. In this section, we describe the SBR components in the interventions included in this review.

Across the 17 study reports identified, 30 different variations of SBR were included, 5 of which were either passive or not well-controlled SBR control conditions. Twelve studies provided detailed descriptions of the examined interventions' components, which included 17 unique SBR conditions. Thirteen of these SBR conditions were examined in studies (k=8) that met WWC quality standards with or without reservations: These were classified as Category 1 SBR interventions. Ten of these were also in studies (k=6) that found significant effects on at least one outcome: These were classified as Category 2 SBR interventions. See Table 3 for intervention components.

General components implemented in 50% or more of Category 2 interventions included book introductions, interactive reading styles, opportunities to interact with peers, a reader's guide or scripted lesson, coaching or mentoring provided to educators, and repeated readings. Components related to

(continued)

TABLE 3Components included in SBR interventions

	SBR interventions $(n = 17)$	Category 1 SBR interventions $(n = 13)$	Category 2 SBR interventions $(n = 10)$	Preschool Category 2 SBR interventions (n = 3)	Elementary Category 2 SBR interventions $(n = 7)$
Component	(%) u	n (%)	(%) u	n (%)	n (%)
General components					
Book introduction	14 (82.35%)	12 (92.31%)	6 (90.00%)	2 (66.67%)	7 (100.00%)
Books described as culturally relevant	3 (17.65%)	1 (7.69%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
Coaching or mentoring provided to educators	7 (41.18%)	7 (53.85%)	7 (70.00%)	1 (33.33%)	6 (85.71%)
Commercially available books	13 (76.47%)	9 (69.23%)	(%00.09) 9	3 (100.00%)	3 (42.86%)
Guiding or hook question prior to SBR	6 (35.29%)	6 (46.15%)	4 (40.00%)	0 (0.00%)	4 (57.14%)
Home language used to support comprehension	6 (35.29%)	4 (30.77%)	3 (30.00%)	0 (0.00%)	3 (42.86%)
Interactive reading style	14 (82.35%)	10 (76.92%)	8 (80.00%)	1 (33.33%)	7 (100.00%)
Opportunities for students to interact with peers	7 (41.18%)	7 (53.85%)	7 (70.00%)	0 (0.00%)	7 (100.00%)
Professional development provided to educators	9 (52.94%)	9 (69.23%)	8 (80.00%)	1 (33.33%)	7 (100.00%)
Reader's guide or scripted lesson	16 (94.12%)	12 (92.31%)	6 (90.00%)	2 (66.67%)	7 (100.00%)
Repeated readings	17 (100.00%)	13 (100.00%)	10 (100.00%)	3 (100.00%)	7 (100.00%)

TABLE 3. (continued)

Commonant	SBR interventions $(n = 17)$	Category 1 SBR interventions $(n = 13)$	Category 2 SBR interventions $(n = 10)$	Preschool Category 2 SBR interventions $(n = 3)$	Elementary Category 2 SBR interventions $(n = 7)$
Component	n (%)	n (%)	n (%)	n (70)	n (70)
Components to support vocabulary learning Additional activities related to 10 target words	arning 10 (58.82%)	8 (61.54%)	7 (70.00%)	1 (33.33%)	6 (85.71%)
Cognate status referenced	8 (47.06%)	8 (61.54%)	8 (80.00%)	1 (33.33%)	7 (100.00%)
Embedded definitions	10 (58.82%)	6 (46.15%)	5 (50.00%)	2 (66.67%)	3 (42.86%)
English definitions provided	14 (82.35%)	10 (76.92%)	6 (90.00%)	2 (66.67%)	7 (100.00%)
Home language used to support learning target word(s)	8 (47.06%)	6 (46.15%)	5 (50.00%)	2 (66.67%)	3 (42.86%)
Images of target word(s)	11 (64.71%)	7 (53.85%)	(%00.09) 9	2 (66.67%)	4 (57.14%)
Props, manipulatives, or realia	5 (29.41%)	1 (7.69%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
Students asked to listen for target word(s) during SBR	6 (35.29%)	4 (30.77%)	4 (40.00%)	1 (33.33%)	3 (42.86%)
Students asked to repeat target word(s)	13 (76.47%)	9 (69.23%)	6 (60.00%)	2 (66.67%)	3 (42.86%)
Teacher questions related to target word(s)	6 (35.29%)	4 (30.77%)	4 (40.00%)	1 (33.33%)	3 (42.86%)
Technology	1 (5.88%)	1 (7.69%)	1 (10.00%)	1 (33.33%)	0 (0.00%)
Word expansions provided	9 (52.94%)	7 (53.85%)	(%00.09)	2 (66.67%)	4 (57.14%)
Words taught prior to SBR	10 (58.82%)	6 (46.15%)	6 (60.00%)	2 (66.67%)	4 (57.14%)

Note. Category 1 SBR interventions were examined in studies that met WWC quality standards, with or without reservations. Category 2 SBR interventions are Category 1 SBR interventions that also had statistically significant effects on at least one language-related outcome. Bold text indicates a component implemented in 50% or more of Category 2 SBR interventions. SBR = shared book reading; WWC = What Works Clearinghouse.

vocabulary intervention that were implemented in 50% or more of Category 2 interventions included teaching the target words prior to the SBR, providing English definitions for target words, using images of target words, asking students to repeat target words, and providing expansions on target words, such as example uses of the word. As the manner that the home language was used to support comprehension and vocabulary learning varied from study to study, these strategies were collapsed into components described as "home language support," supporting either comprehension or vocabulary acquisition. These supports included strategies such as providing audio-recorded Spanish language versions of the book, providing a preview of the book in Spanish, and providing Spanish definitions for targeted words, among others. Home language supports were provided in 30% of the Category 2 interventions to support comprehension and 50% of the Category 2 interventions to support vocabulary learning. Not included in this "home language support" category was the explicit identification of Spanish-English cognates, implemented in 80% of Category 2 interventions.

Supplemental components and age of participants

Of the 17 unique SBR conditions, 7 were implemented with elementary-aged students and 10 with preschool-aged students. All of the interventions used with elementary-aged students were classified as Category 2, whereas only 3 of 10 interventions implemented with preschool aged students met Category 2 criteria. Two of the preschool-aged interventions were implemented with children with migrant families during summer programs (Leacox & Jackson, 2014; Lugo-Neris et al., 2010); thus, it is unclear how generalizable these findings may be to other settings.

Comparing the supplemental components implemented with elementary-aged participants and preschool-aged participants revealed many similarities. The majority of interventions across those implemented with both groups of participants included book introductions, a reader's guide or scripted lesson, and repeated readings. They also included many similar supports for word learning: English definitions, images of targeted words, word expansions, and preteaching of targeted words. Differences were also noted between the groups of interventions implemented with different ages of participants. A larger proportion of SBR interventions implemented with elementary-aged participants included a guiding question prior to the SBR, opportunities for peers to interact, referencing the cognate status of targeted words, and the use of additional activities to support word learning.

Discussion

Our goal in this review was to examine all peer-reviewed study reports on SBR interventions implemented with Spanish-speaking EBs. We sought to describe the components of these interventions and the language-related results obtained through their implementation. We identified 17 studies, 14 that were group design and 3 SCDs. We determined that nine of the group design and two SCD studies met WWC standards with or without reservations. Of these, six also demonstrated statistically significant effects.

This review adds to the research base on the effects of SBR in several ways. We focused on SBR interventions implemented with Spanish-speaking EBs in school settings, which is the first review to our knowledge to do so. We included all types of studies that could demonstrate experimental control, including SCDs. We also included studies that used SBR as an active control condition. In addition, we detailed more thoroughly the SBR intervention components in the included studies than in previous reviews.

Effects of SBR on Vocabulary Outcomes

SBR is commonly used as a vehicle for vocabulary instruction in school settings. Children's literature typically uses a richer variety of words than what is heard in common oral language (Kamil & Hiebert, 2005): As observed by Stahl (2005), "children's books are where the words are" (p. 100). Books also provide a context that supports vocabulary learning (Nagy et al., 1985). It is likely not surprising, then, that of the 35 statistically significant findings in studies that met WWC criteria and were in favor of a SBR condition, the majority were on a RD vocabulary measure. These were reported with ESs that could mostly be characterized as medium to large. This aligns with previous syntheses on effects of SBR on vocabulary, syntheses that either limited participants to being proficient English speakers or did not address language learner status. In these syntheses researchers found moderate effects of SBR on vocabulary for students in school settings (Blok, 1999; Mol et al., 2009; Swanson et al., 2011).

It is noteworthy that most of the words targeted in the SBR interventions were described as imageable. These word choice decisions were likely related to assessment issues. Measures of receptive vocabulary often have children select the correct image of four that corresponds to the spoken vocabulary word, similar to the PPVT (Dunn & Dunn, 2007). Similarly, simple measures of expressive vocabulary often have a student produce language related to what is depicted in a picture (e.g., Expressive Vocabulary Test Second Edition [EVT-2]; Williams, 2007). August et al.'s (2018) study was an exception to this trend as the researchers examined the effectiveness of SBR on words classified as concrete or abstract. Their RD assessment included the provision of a picture, a sentence describing the picture, and a child-friendly definition, and then asking the child to select the correct word. These additional characteristics were likely necessary to test children's knowledge of abstract words. August et al. (2018) found medium and large ESs for extended SBR conditions on teaching abstract words when compared to embedded and incidental conditions. It is possible that more extensive instruction is required when targeted words are more abstract and therefore less supported by referencing images.

Conditions that did not result in positive vocabulary differences

The conditions where effects were not found in favor of a SBR condition also provide important insights about SBR and vocabulary learning for Spanish-speaking EBs. August et al. (2018) did not find statistically significant differences between pretest and posttest scores in a passive SBR condition. This finding underscores the importance of the interactive nature common to most SBR experiences: Simple exposure to words is likely not sufficient to promote English word

learning for Spanish-speaking EBs. Other results indicate that other methods can be equally effective for teaching vocabulary as SBR. Pollard-Durodola et al. (2018) found that direct instruction of science and social studies vocabulary was equally effective as teaching the same words within a SBR context. In the Van Horn and Kan (2016) study, the researchers did not find different effects for fast-mapping between the cartoon with adult narration condition and the SBR condition. The National Reading Panel (2000) cautioned against relying on a single method of vocabulary instruction, as a variety of methods were found to be effective in their review. De Temple and Snow (2003) also commented on other experiences besides SBR that also can lead to vocabulary growth, such as conversations including sophisticated vocabulary during science activities, field trips, and pretend play. Thus, although SBR has been demonstrated as an effective means of teaching vocabulary, it is only one strategy that can be used to support Spanish-speaking EBs' English language development.

In contrast to the positive effects found for RD measures of vocabulary, there were no statistically significant differences found on standardized measures. Other researchers have noted that it can be more difficult to obtain changes in standardized measures, especially in outcomes related to vocabulary (e.g., Hargrave & Sénéchal, 2000). In their meta-analysis of vocabulary intervention on word learning, Marulis and Neuman (2010) found that smaller effects were found on standardized measures than on RD measures. The National Reading Panel (2000) recommended that researchers use a combination of measures, as standardized measures are not as sensitive to growth as proximal measures. Also, the average length of the studied SBR interventions was 20 hours. It is likely that more dosage is necessary to effect changes on a standardized vocabulary measure.

Effects on Other Aspects of Language

Despite seeking to include any relevant studies with language outcomes, relatively few outcomes were reported that were not vocabulary. Those that were reported varied greatly in nature, including narrative language in Spanish and English (Cruz de Quiros et al., 2010), mean length and frequency of utterances in English (Huennekens & Xu, 2010), and rate of English words produced (Correa et al., 2015). Positive effects were noted for these outcomes. Giambo and McKinney (2004) found a statistically significant difference in favor of a PA intervention being compared to a passive SBR condition on a standardized measure of expressive language. Thus, this review offers limited evidence that SBR is effective on language domains apart from vocabulary.

Components of SBR

Although *SBR* is a broad term that can be used to describe a variety of interventions, there were several common components across those included in this synthesis. It is likely that these additional components that went beyond the sharing of the book contributed to the effectiveness of the intervention, as studies that examined the effects of passive SBR conditions or those that provided incidental exposure to words did not find positive effects in favor of those conditions (e.g., August et al., 2018; Giambo & McKinney, 2004).

The authors compared the components used in interventions with preschoolaged students and those implemented with elementary-aged students. Although there were several commonalities among Category 2 interventions, there were numerous differences as well. These differences may reflect older students' ability to engage in the SBR in different ways. It is worth noting, however, that only three SBR interventions implemented with preschool-aged participants met Category 2 standards; thus, any generalizations should be done cautiously.

Effects of Home Language Use

Fitton et al. (2018) did not find significant differences related to the use of home language in SBR interventions on a composite measure of English literacy and reading, although this finding was reported with high heterogeneity. In this review, there were mixed findings related to English vocabulary across the four studies that did examine the use of home language.

Participant characteristics or intensity of home language support may have contributed to these mixed findings. Unlike the other studies' that examined the effectiveness of home language support, Restrepo et al.'s (2013) participants had specific language impairment (SLI), which may affect how the home language instruction benefits growth in an additional language. Paradis (2016) commented how EBs with SLI demonstrate slower acquisition of an additional language than EBs without SLI, although this slower rate is inconsistent across language domains and was not documented with vocabulary. The amount of home language support was also less than that provided in other interventions. Lugo-Neris et al.'s (2010) home language support consisted of vocabulary expansions in Spanish, whereas the rest of the SBR experience was conducted in English. Méndez et al.'s (2015, 2018) home language support was more extensive and included SBR in Spanish on the 1st day and a bilingual SBR on the 2nd day, with target words presented first in Spanish and then in English. It is logical that more extensive support in Spanish could demonstrate a stronger effect.

Three of these four studies also examined and found positive effects on Spanish vocabulary. This is beneficial in itself, as growth in vocabulary in any language reflects positive growth in conceptual knowledge: As Stahl (2005) noted, "Vocabulary knowledge *is* knowledge" (emphasis in the original text, p. 95). In addition, strong relationships have been found between Spanish-speaking EBs' home language vocabulary and English reading outcomes (Proctor et al., 2006). These studies did not meet WWC quality standards, however, as the Spanish language outcome measures were overaligned with the SBR conditions: Students in the other conditions were not exposed to the Spanish vocabulary words.

Implications for Practice

SBR has demonstrated effectiveness on Spanish-speaking EBs language-related outcomes, especially in vocabulary. Nevertheless, the way SBR is conducted is important. The studies that implemented a passive SBR condition (August et al., 2018, Giambo & McKinney, 2004) demonstrated that simple exposure to a read-aloud is likely not sufficient for English vocabulary growth for Spanish-speaking EBs. This is in contrast to read-alouds with proficient English

speakers, as studies have demonstrated vocabulary growth through incidental exposure (e.g., Elley, 1989).

Although SBR supplemental practices can vary greatly, there were several common components across Category 2 interventions, or those from studies that demonstrated statistically significant effects and met WWC guidelines for quality. These included repeated readings, English definitions, an interactive reading style, and the use of cognates. When considering SBR components, there may be the temptation to include as many components as possible. However, too many components can make it an unfeasible practice for educators. As August et al. (2018) noted, positive results were obtained with the simpler embedded version of their intervention, which they viewed it as more feasible in typical classroom conditions. When considering components, a key consideration is the purpose of the SBR. As noted previously, SBR is often used as a vehicle for vocabulary learning. If vocabulary learning is the goal, educators may want to consider prioritizing the practices found in the Category 2 interventions that supported vocabulary learning, such as highlighting cognates, providing definitions, and showing images of targeted words.

The review also provided evidence that incorporating home language support can promote vocabulary development for Spanish-speaking EBs in both English and Spanish (Leacox & Jackson, 2014; Lugo-Neris et al., 2010, Méndez et al., 2015, 2018). Several syntheses have documented the positive differences of bilingual education (i.e., education with home language support) for EBs, including Spanish-speaking EBs (Baker et al., 2016; Rolstad et al., 2005; Slavin & Cheung, 2005). When the language abilities of the teachers do not match those of the students, incorporating technology (e.g., Leacox & Jackson, 2014) is one way to provide this support. Although teachers might not have access to books with Spanish bridging, technologies such as Google Translate or image search can be used to leverage students' home languages.

Areas of Future Research

This review highlights several areas of potential future research. The mixed results relating to home language support suggest that students' learner characteristics; their home language and English proficiency; and factors related to implementation, such as dosage, could moderate those effects. Future research could examine for whom, under what conditions, and to what extent home language support is beneficial. Issues related to providing this type of support when the classroom teacher is not a Spanish speaker, such as by incorporating technology, are also potential areas for investigation.

Although there were many shared components across the studied found to have statistically significant effects and to meet WWC quality standards, there were other components that were included in 50% or less of the examined interventions. These components included asking students to listen for targeted words during the SBR, using a guiding question, and using props or manipulatives to support word learning. Future research could be designed to examine whether these features contribute to better outcomes for Spanish-speaking EBs.

A readers' guide or script was provided in the majority of all examined interventions (n = 16, 94%). Professional development was also provided to teachers

in 52.9% of the interventions (n=9). It is possible that typical SBR practice, without these supports, does not closely resemble that which was examined in these studies; thus, the effects on Spanish-speaking EBs' language-related outcomes could be different. There is an extant research base of descriptive studies (i.e., not experimental) documenting how the SBR teacher practices are related to students' language growth (e.g., Hindman et al., 2012; Zucker et al., 2021). This holds true for SBRs with Spanish-speaking EBs as well: Gámez et al. (2016) found that teacher SBR behaviors with Spanish-speaking EB, specifically extratextual talk and gestures, were related to growth in narrative production and comprehension. These observations suggest additional areas of investigation: the nature of SBR with Spanish-speaking EBs in typical classroom settings without the provision of a script or professional development; differential teacher SBR practices on student outcomes; and the impact of professional development, without provision of a script, on teacher SBR practices with Spanish-speaking EBs.

Limitations

Although one aim with this synthesis was to describe intervention components, research reports do not necessarily detail every component. In fact, four of the studies in the corpus did not report sufficient details of their SBR condition to examine their components. Thus, it is possible our description of the components is not an accurate representation of all of the factors that contributed to the studies' findings.

Another important limitation is that we did not originally include PA in our search terms related to language outcomes. We originally considered PA aligned with decoding and not linguistic comprehension in the SVR framework. However, reviewing the yielded studies, we recognized that PA is a component of language that could potentially be affected by SBR experiences (see, e.g., Lefebvre et al., 2011). It is possible that including search terms related to PA could have resulted in a larger corpus of studies, thus providing a more complete picture of the effects of SBR for Spanish-speaking EBs.

There were some differences found between those Category 2 interventions implemented with preschool-aged students and elementary-aged students. Unfortunately, as only three preschool interventions met Category 2 requirements, it is not easy to generalize from those findings. Thus, we cannot make recommendations for differentiation according to age groups based on these findings.

Conclusion

Spanish-speaking EBs in the United States find themselves at the intersection of being Hispanic/Latino/a/x, a minoritized group, and identified as EL, ELL, or LEP. They are a quickly growing portion of the U.S. public school population, and they are not experiencing the same reading successes as their peers of other ethnicities or English language proficiency statuses. This could contribute to less successful future outcomes. Effective reading instruction for Spanish-speaking students must support their language development while teaching the more constrained skills related to decoding. This review found positive effects of SBR on language outcomes for Spanish-speaking EBs, particularly for vocabulary. How a

SBR session is conducted, however, matters: Simply exposing students to words through reading a book aloud is likely not sufficient to promote language growth. We identified several SBR components that were included in studies that were considered to have internal validity and also demonstrated statistically significant effects on language-related outcomes. It is likely, however, that typical, teacher-directed SBR practices do not resemble those in researcher-directed SBR—future studies can examine these differences and their possible effects on language outcomes for Spanish-speaking EBs.

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