Clinical Forum

Teaching Struggling Readers Who Are Native Spanish Speakers: What Do We Know?

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reventing reading failure for nearly all children who are native English speakers has been repeatedly shown to be an obtainable reality (Foorman & Torgesen, 2001; Mathes & Denton, 2002). However, preventing reading failure among students who are English language learners (ELLs) is less well documented. Recent reports simply do not address the issue of whether

current findings generalize to these students (i.e., National Reading Panel, 2000; Snow, Burns, & Griffin, 1998). In fact, the National Reading Panel report states that "the panel did not focus on special populations such as children whose language is other than English" (p. 1–3).

Currently, most of what has been written about instructing ELLs has focused on the language of instruction (English vs. native language)

ABSTRACT: Purpose: The purpose of this article is to share what we have learned from a series of 4 scientific studies about preventing reading failure through early intervention with native Spanish-speaking students who are struggling readers. The goal is to provide guidance to practitioners about effective practices for working with native Spanish-speaking children who are struggling to become readers using evidence rather than conjecture and opinion. Method: First, the method and findings are summarized from each of 4 scientific studies (2 English, 2 Spanish) examining supplemental reading intervention that was provided in addition to core reading instruction in first grade. Second, the supplemental interventions are detailed. Next, aspects of instruction that appear to generalize from what we know about preventing reading failure among native English speakers are discussed. Last, the types of adjustments made

to this instruction in order to accommodate the needs of English language learners are examined.

Implications: Outcomes confirm that native Spanish-speaking children benefited from explicit, systematic instruction that shared many of the same elements that have been proven to be effective with native English speakers. Further, English as a second language teaching techniques (i.e., use of concrete gestures and visual aids, consistent and repeated routines, and use of repeated phrases and consistent language) benefited native Spanish speakers who were struggling to learn to read in English. However, little transfer of knowledge from one language to another was detected.

and the timing of transition from the native language to English (early vs. late: August & Hakuta, 1997; Garcia, 2000; Padilla, Fairchild, & Valadez, 1990; Ramirez, Yuen, & Ramey, 1991). Although resolution to these debates is critical to designing effective programs for ELLs, their resolution will do little to inform us about how to promote reading success among ELLs who struggle to learn to read, regardless of the language of instruction.

Recent syntheses of the extant research base of teaching reading to ELLs who are struggling readers revealed that there are relatively few empirical studies addressing the instructional needs of this population. Cavanaugh, Kim, Wanzek, and Vaughn (in press) conducted a synthesis of kindergarten reading intervention research and reported that only 2 studies even included ELLs. Of those that did, the manner in which the data were presented did not allow for disaggregation. Vaughn and colleagues conducted a synthesis of the extant research base of reading interventions provided to native Spanish-speaking ELLs who were struggling readers in kindergarten through third grade (Vaughn, Linan-Thompson, Pollard-Durodola, Mathes, & Cárdenas-Hagan, 2006). In that review, a total of only 8 intervention studies was found with an appropriate comparison condition. Of these, 3 were conducted outside the United States (Defior & Tudela, 1994: Spain; Sanchez & Rueda, 1991: Spain; Stuart, 1999: England). Of the remaining 5 studies, 2 were conducted in English (Denton, Anthony, Parker, & Hasbrouck, 2004; Gunn, Biglan, Smolkowski, & Ary, 2000), and 3 were conducted in Spanish (Goldenberg, 1994; Goldenberg, Reese, & Gallimore, 1992; Muñiz-Swicegood, 1994). All of the interventions, with the exception of Gunn et al., were narrow in scope (e.g., sole focus on phonemic awareness, storybook reading, or a specific comprehension strategy) and of short duration. Further, only Muñiz-Swicegood examined whether instruction in one language transferred to the second language.

Given the paucity of research, it is fair to say that currently there is inadequate evidence to guide decision making about how to best intervene with ELLs who are struggling readers. Although highly

Such ownership may require greater time and intensity (highly targeted instruction delivered in small groups) for students who struggle to learn reading as compared with students who learn to read readily. For these students, a tiered approach, with each tier providing

we ended up with a scope and sequence of skills progression that was considerably different from that of English. To be clear, we did no simply translate proactive reading into Spanish; rather, we created a new intervention using identical procedures applied to Spanish. We call the Spanish intervention lea a oaai a (Mathes, Linan-Thompson, Pollard-Duradola, Hagan, & Vaughn, 2001). In the end, the two interventions had identical instructional delivery techniques and nearly identical teaching routines, but introduced content at different times and used completely different text selections.

Research Design

All 4 studies shared the same experimental design, sample selection procedures, and measurement scheme and were conducted within a subset of schools that were participating in a large multistate, multisite, longitudinal project focusing on language and literacy development in young students. Because of the limited number of studies with this population, we chose to conduct our studies across consecutive years using the same research design—an initial study in English (Vaughn, Mathes, et al., in press) and in Spanish (Vaughn, Linan-Thompson, et al., 2006), followed by a replication study in English and in Spanish (Vaughn, Cirino, et al., in press). Schools in all 4 studies and both years were located in the Austin, Houston, or Brownsville areas of Texas. We purposely selected schools that were at least 60% Latino and had passing rates of 80% or better on the statelevel reading achievement. Because we were interested in understanding the effectiveness of Tier 2 intervention within contexts in which Tier 1 was effective, we prioritized effective schools (determined by the performance of students in the school on statewide reading assessments). All schools participated in the free or reduced lunch program, and the proportion of students who qualified ranged from 85% to 100%.

Within each participating school, students reading at or below the 25th percentile on measures of letter knowledge and word reading ability in bah Spanish and English were identified though universal screening of all first graders. Once struggling readers within a building were identified, they were assigned randomly to receive either the school's standard reading program or the standard core reading program plus Tier 2 intervention delivered by intervention teachers who were provided by our research team. Research intervention teachers met daily for 50 min with groups of 3-5 students. During this time, students received a 40-min lesson in either proactive reading or lectura proactiva, depending on the language of instruction. In 321stt (t)-261(d)13(a12(e5-183(th)27)-2(c)13(he)20(hs)-197(wi)21()-26ev)18(e)13gad storybook activity designed to promote oral language development.

Both English and Spanish intervention teachers received 12 hr of professional development from the authors of the intervention before implementation, an additional 6 hr after 6 weeks of implementation, and an additional 6 hr in the spring semester. Teachers also participated in frequent 1- to 2-hr staff development sessions at each site during which they (a) were provided feedback about their instruction based on observations and videotaped lessons, (b) discussed any questions or challenges regarding implementation of the intervention, and (c) collaborated in planning and instruction by using case studies from their students to plan for accelerating the growth of students. These sessions occurred on a weekly basis the first 2 months of intervention implementation and less frequently as intervention teachers improved in confidence and performance. Intervention teachers received frequent onsite coaching that varied from weekly to monthly depending on their needs. Teachers were also videotaped

frequently and were asked to watch their videotapes, critique their instruction, and then debrief with a researcher.

Measures

Before the onset of Tier 2 intervention (October), students in both the experimental and contrast conditions completed a comprehensive, individually administered assessment battery examining each child's reading and language ability in both Spanish and English. This same battery was then repeated near the end of the academic year (May). Measures included in this battery are described in the following paragraphs.

Letter naming and letter sound identification. Students were asked to identify each of the 26 letters of the English alphabet and each of the 30 letters of the Spanish alphabet. Children were also asked to provide at least one sound for each letter.

Comprehensive Test of Phonological Processing (CTOPP;

impact of the intervention on the treatment group as compared to children who received the standard educational program, with an average d=.83. Importantly, transfer between what was learned in English reading to Spanish reading was apparent for this cohort. The average effect size on measures of Spanish reading was d=.50. Effect sizes for individual measures are presented in Table 1.

In the replication study, there were no differences between the treatment and comparison groups in either language on any measures at pretest. However, pretest reading performance levels of students in the replication study were considerably lower than pretest reading

learning with previous learning, ongoing review, and opportunities for group and individual responding. The goal was to integrate skills and strategies over time. Thus, the tasks associated with fluent, meaningful reading were carefully analyzed and elements were sequenced into a cumulatively building and carefully integrated set of daily lesson plans. These lessons were constructed so that various content strands (i.e., phonemic awareness, graphophonemic knowledge, word recognition, connected text fluency, vocabulary, and comprehension strategies) were integrated within all lessons. These design principles were derived from the Model of Direct Instruction (Carnine, Silbert, Kame'language.

Instructional Design Principles

The overarching objective in the design of our Tier 2 interventions was to reduce the occurrence of errors through the integration of new

Phonemic awareness activities in both English and Spanish were included. However, less emphasis was placed in Spanish on phonemic awareness than in English because the structure of words in Spanish is more apparent. The phonemic awareness strand in both languages included two types of activities: phoneme discrimination and phoneme segmentation and blending. Early activities required children to isolate initial sounds in words or to tell if a word started with a particular phoneme. Later activities moved to isolating final phonemes. Phoneme discrimination activities were

Table 2. Instructional design principles for each strand.

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Phonemic awareness	Graphophonemic correspondences that were to be introduced in the near future were practiced first orally by incorporating them into the phonemic awareness activities. Introduction of a new word type to be sounded out was preceded with auditory practice of words of that type during the phonemic awareness activities.
Orthophonemic knowledge	No more than one graphophonemic correspondence or high-frequency word was introduced in a lesson. Previously mastered graphophonemic correspondence and high-frequency words were reviewed in each lesson. Graphophonemic correspondences used more frequently in words were introduced first. The initial introduction of graphophonemic correspondences and sight words that were auditorially and/or visually similar were kept apart initially and then carefully moved together so ensure discrimination.
Word recognition	Once introduced, graphophonemic correspondences were incorporated into words to be sounded out after 1 day, and then into words found in decodable text 1 day later. The introduction of word types was controlled for difficulty. Across time, word types become cumulatively more advanced. In English, the closed syllable (i.e., consonant-vowel-consonant: CVC) was taught first. Initially, CVC words in which the initial consonant represented a continuant were practiced first. Later, CVC words that started with stops were included. Thus a word like "mat" would precede a word like "hat."

also used to ensure that children were able to discriminate consonant and vowel phonemes as well as the various vowels from each other. In English, children were taught how to segment one-syllable words into individual phonemes, as well as to recognize words from individually spoken phonemes. In Spanish, this same type of activity was completed with both one-syllable and two-syllable words in which each syllable was comprised of a consonant and a vowel (i.e., CVCV, as in

and oral excession (Hickman, Pollard-Durodola, & Vaughn, 2005). Primarily prositor books at a second- to third-grade reading level ere selected so that tekwy as at an appropriate level to promote listening ere organized in themes so that vocabulary comprehension. Books w ould be redundant and concepts could be organized, reinforced, and w exended. In total, there w ere eight themes (e.g., bugs), with three or four books that addressed each theme. Books w ere of a length that they could be broken into passages of approxmatel 200 $-250 \, {\rm w}$ ords (the amount read each daybythe teacher). One book w as read from and discussed for 3 to 5 day. The entire book w as read completelyfrom beginning to end the dayafter the last passage w as read. Each daytw o or three new vocabularwy ords w ere taught to the students before the read-aloud. Students w ere then asked to listen for the "target w ords hen the storwy as read. These w ere then ords w discussed in contex After the passage w as read aloud, students ith the teacher about the story provided an oral retell and dialogued w using complete sentences and new vocabularyterms.

Inclusion of ESL Techniques

Proactive reading and lectura proactiva incorporate into their basic design manypractices that are considered effective w ith ELLs, including the use of clear and repetitive language, repetitive routines, ell as high levels of student teacher interaction and gestures, as w and dialogue. To ensure that the students being taught to read in English full benefited from proactive reading, w e also interspersed throughout each lesson a set of language support activities targeting three trees of w ords: (a) directions from the teacher, (b) w describing an instructional concept related to a task, and (c) vocabularyerms found in connected texused for fluencybuilding and comprehension. To exdore the meaning of w ords, intervention teachers provided a target w ord and asked if students knew meaning. If students w ere unable to talk about the w ord in a meaningful w aythen the teacher used the w examples of its use using examples from Latino culture w Students w ere then asked to tell w

ord in a sentence and provided hen postible English speakers w as also effective w hif ere learning to read in E hat the Repartish speakers w veamplemell to w basic instructional deliverystem, content, and design w ere also applicable for providing effective reading instruction in Spanish.

Applicability of Tier 2 Instruction

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Outcomes from our research make clear that native Spanishspeaking students w ho are struggling readers, on average, benefi from participation in Tier 2 supplemental instruction that w vided in addition to core reading instruction in either language. We do not claim to know hether the 50 min of inst is necessary for all students, or if our group size of 3 to 5 students is the most advantageous. Likew ise, w e do not kno eeks this Tier 2 instruction must be implemented in order to de rive the greatest benefit for children. What w e can says that supp mental instruction that is delivered dailybyhighlyrained teachers for 50-min sessions across approxmatel 25 w eeks during the firstgrade var resulted in significantlybetter literacyand language outcomes for ELLs w ere learning to read in eithe ho w than didcore instruction alone. This finding is consistent w ith native English speakers. We specu comes from our research w that for manynative Spanish-speaking students, Tier 2 instruction may prove to be a necessary feature of instruction in order to promote literacyeven w hen these children are being taught in their native language of Spanish.

Applicability of Instructional Content

Given the positive outcomes that were observed for native Spanish speakers in our studies, it is apparent that categories of early reading content that have been show to be critical for assisting struggling native English speakers to become competent readers are also effective for promoting reading competence with native Spanish-speaking children (i.e., phonemic aureness, letter knowedge, word recognition, vocabulary and comprehension). In our research, native Spanish-speaking children benefited from explicit, systematic instruction that shared many of the same elements of effective instruc-

reading in Spanish at the end of first grade. Hower, this transfer effect as not sustained to the end of second grade. No transfer effects were observed among the other 3 cohorts.

These findings are consistent wh generally accepted patterns of cross-linguistic transfer of metalinguistic knoledge (Cisero & Royer, 1995; Durgunoglu, 2002; Durgunoglu et al., 1993; Leafstedt & Gerber, 2005). Metalinguistic knowedge that is most likely to transfer linguistically across languages is the knoledge of phonological units (e.g., phonemes, syllables.), the syntactic or grammatical structure of witten language, print conventions, wird recognition and spelling, decontex tualized language or ability to define concepts using academic language, knoledge of text genre, and comprehension strategies (e.g., Durgunoglu, 2002). According to Durgunoglu (2002), if language learners knowliteracy tasks in their native language, then lack of transfer to a second language may be due to lowlanguage proficiency in the second language. Thus, it not surprising that w observed little transfer from Spanish to English because students' language proficiency in English as extremely lowConversely, the transfer wobserved in the first cohort of students wo were being instructed in English to read in Spanish is logical because these students possessed higher language proficiency in the language to wich transfer occurred (i.e., Spanish).

We suspect that this transfer of skills between languages as not replicated with our second cohort of children wo were being instructed in English because that group's language proficiency in their native language of Spanish as very lowfrom the outset of the study. Hower, further research is needed to determine wether initial native language status predicts transfer across languages. Durgunoglu (2002) suggested that low levels of language proficiency in a child's native language can slowlow the transfer of metalinguistic skills betwen languages. Outcomes from our 4 studies also suggest to us that if transfer is not observed initially, it is not likely to materialize later. Further, the fact that the transfer wobserved for our initial English instruction cohort to reading in Spanish as not sustained through second grade, wile disappointing, is not surprising. These students all attended a school that embraced a structured English immersion approach. By second grade, nearly all Spanish supports had been removed from instruction. Thus, these children had virtually no opportunities to dialogue or practice reading in their native language wile at school; reducing, in our opinion, the likelihood that transfer effects wuld be maintained. In order to maintain the native language, it appears necessary to include instruction in that language for at least part of the day.

CONCLUSION

In summary, as with all students, the success of ELLs is dependent on effective instruction that focuses on both foundational and

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