LANGUAGE AND READING INTERVENTIONS FOR ENGLISH LANGUAGE LEARNERS AND ENGLISH LANGUAGE LEARNERS WITH DISABILITIES

CENTER ON INSTRUCTION

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The authors would like to acknowledge the invaluable assistance in developing this publication of Dr. Margarita Calderón, Dr. Timothy Shanahan, Dr. Joseph K. Torgesen, and Dr. Paola Uccelli, and Angela Penfold, Elizabeth Goldman, and C. Ralph Adler of RMC Research Corporation.

This publication was created for the Center on Instruction by the Texas Institute for Measurement, Evaluation, and Statistics at the University of Houston. The Center on Instruction is operated by RMC Research Corporation in partnership with the Florida Center for Reading Research at Florida State University; Instructional Research Group; the Texas Institute for Measurement, Evaluation, and Statistics at the University of Houston; and The Meadows Center for Preventing Educational Risk at The University of Texas at Austin.

The contents of this document were developed under cooperative agreement S283B050034 with the U.S. Department of Education. However, these contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the Federal Government.

Editorial, design, and production services provided by RMC Research Corporation.

Preferred citation:
Rivera, M. O., Moughamian, A. C., Lesaux, N. K., & Francis, D. J. (2008). *Language and reading interventions for English language learners and English language learners with disabilities*. Portsmouth, NH: RMC Research Corporation, Center on Instruction.

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INTRODUCTION

In order to achieve academic and personal success, students must learn to read with understanding from an early age and refine and strengthen these skills over time. Successful English readers develop functional knowledge of the English alphabetic writing system and apply it as they begin to read words in print (Snow, Burns, & Griffin, 1998), moving from less to more complex challenges as they encounter new vocabulary and progressive more difficult text.

For non-native speakers of English, learning to read is complicated by the relationship between reading and speaking skills. Lack of familiarity with the sounds in English words may hinder English language learners' understanding of the relationship between sounds and letters in print. Moreover, learning to read academic text may present even greater challenges because English language learners (ELLs) have fewer meaningful opportunities to practice academic language than conversational language.

National and state assessment scores reveal a significant discrepancy in reading proficiency levels between ELLs and native speakers of English, which only widens as students progress through school (National Center for Educational Statistics, 2007). These statistics become even more alarming when one examines the limited progress of ELLs who also have an identified disability. As in the overall student population, a small portion of English language learners also presents special needs. These students have language, academic, behavioral, or physical challenges that hinder their acquisition of literacy and their ability to learn increasingly complex content. It is often said that English learners have "double the work" in understanding academic content at the same time they are trying to master the English language. Thus, students who are learning English and who also have a learning disability (e.g., dyslexia, dysgraphia) or speech and language disorder (e.g., auditory processing, expressive, or receptive language disorder) face even greater challenges.

Because students with these challenges require intensified instructional efforts, educators can benefit from guidance and support in using effective research-based instructional methods for teaching English literacy and academic content to English language learners with disabilities. This publication explores

issues and makes recommendations related to meeting the needs of English learners with limited language proficiency or learning disabilities, or both.

We begin by noting the current federal policy context in which this discussion of reading instruction and interventions for ELLs occurs. Then we discuss how English language learners are identified and classified and raise related assessment issues. We follow that with a discussion of issues in identifying English language learners with disabilities and concerns associated with assessing ELLs' academic achievements and their language proficiency accurately. Finally, we review recent research on instruction and interventions for ELLs and offer recommendations for interventions in the context of the Response to Intervention model. We close with some consideration of professional development issues.

IDENTIFICATION AND ASSESSMENT OF ENGLISH LANGUAGE LEARNERS AND THEIR NEEDS

Two federal laws frame how the public education system serves English language learners and English language learners experiencing academic difficulties. The first law, the *No Child Left Behind Act* (NCLB), holds schools, districts, and states accountable for teaching English language proficiency and academic content knowledge to English language learners. While it does not address them together, ELLs and students with disabilities are two groups for which schools must demonstrate adequate yearly progress (Barrera et al., 2006). The law requires that ELLs meet the same content and grade-level achievement standards as their peers.

Consequently, state agencies must ensure that districts provide all students whose English proficiency is limited with annual assessments of their English language proficiency (ELP) in oral language, reading, and writing skills. Title III[1] further requires that this ELP assessment be valid and reliable.

The second relevant federal law, the *Individuals with Disabilities Educational Act* (IDEA) of 1997, regulates the education of students with disabilities. IDEA serves approximately 6.1 million school-aged students and almost one million children between birth and age five. Its 2004 revision reflects a close alignment to NCLB and aims to offer students with disabilities more access to the general education curriculum while maintaining high academic expectations.

Cortiella (2006) summarized the current alignment of NCLB and IDEA in three key ways:

1. NCLB's requirement to provide challenging academic content and achievement standards for all students aligns with IDEA's emphasis on individualized educational planning and access to the general curriculum.
2. NCLB's requirements for annual assessments and accountability align with IDEA's requirement for all students' participation in all state and district-wide assessments.
3. Both NCLB and IDEA have specific qualification requirements for general and special education teachers.

[1] Section 3122(a)(3)(A)(ii)

Identifying and classifying English language learners

Typically, on school entry, all children whose primary language is not English are administered a language proficiency measure or an assessment of literacy skills. Although in theory all of these students are English language learners, only a subset—those with the lowest levels of English proficiency—are formally classified as ELLs and receive support services.

The three main classifications of English language learners are:

- *Initially fluent English proficient* (I-FEP) students enroll in school with sufficient English proficiency to participate meaningfully in mainstream classrooms without support.
- Students classified as *limited English proficient* (LEP)—the classification that receives the most attention in school districts—are considered to have English proficiency levels that compromise their meaningful participation in mainstream classrooms and therefore they receive language learning support.
- Most of these students are later labeled *reclassified as fluent English proficient* (R-FEP) and are no longer considered in need of language learning support. Only students who have qualified for reclassification from a specific ELL program and are ready to move to a mainstream classroom are classified as R-FEP.

ELLs may still be misclassified, however. Students may be placed in language support classes incommensurate with their academic needs or, alternatively, may be overlooked for language support services. Many ELLs who do not qualify as limited English proficient (LEP) may in fact have urgent educational needs (De Jong, 2004; Gandara, Rumberge, Maxell-Jolly, & Callahan, 2003). For example, a language minority learner may be misclassified as I-FEP on school entry, yet lack the academic English needed for success in mainstream classes and lose academic ground as he or she progresses through school. Gandara and colleagues report that in one state, "language minority students who enter school already proficient in English start out comparable to native English speakers, but by third grade fall behind and never catch up. A mis-designation of I-FEP may begin a long-term academic struggle that educators fail to attribute to a student's language skills and is likely to preclude subsequent language support services.

Entry and exit criteria for ELL support programs continue to be overly broad, focusing predominantly on ELLs' reading, writing, listening, and speaking skills, but not necessarily on their academic and language skills as they relate to content-area success (Mahoney & MacSwan, 2005; Ragan & Lesaux, 2006; Wright, 2005; Zehler et al., 2003). Language minority learners who were initially limited in their English proficiency, but who through ongoing language support are reclassified as R-FEP and placed in mainstream classrooms, are likely to encounter more difficult and abstract content, particularly in higher grade levels (De George, 1988). Alternatively, a high school student with uninterrupted formal schooling in his or her native language who is not English proficient may be placed in a beginner English as a Second Language (ESL) class for a long time, blocking his or her exposure to the grade-level material necessary to maintain academic achievement.

Assessment issues related to English proficiency and academic achievement

Current policies and practices hinge on the notion that English language proficiency is commensurate with academic skills and development, but the two are not equivalent and assessments of language proficiency do not necessarily also measure academic facility. There is a disjunction between the skills needed for the two types of assessments (Francis, Rivera, Lesaux, Kieffer, & Rivera, 2006). Research comparing ELLs' performance on state English language proficiency assessments, for example, suggests that the length of time a student has lived in the U.S. is a better predictor of his or her growth on language proficiency assessments than are scores on mathematics or English language arts assessments.

If language proficiency tests do not include complex academic material and text, there is a danger that provided support will focus primarily on conversational English and the reading of simple narrative texts without preparing students for the complexity of grade-level material they will encounter later on.

Moreover, the current classification criteria do not take into account the developmental and cumulative nature of language and literacy development. The criteria fail to vary according to actual grade-level expectations and standards or to individual student features such as years of prior schooling,

age of arrival, and native language literacy ability. The language and academic demands in elementary school differ significantly from those in high school. For example, an ELL's designation as proficient in grade one does not guarantee that he or she will meet expectations in a high school classroom.

Identifying English language learners with disabilities

To date, educators' ability to determine whether an ELL's academic difficulties stem from learning a second language, the presence of a disability, or some combination of the two, is limited. District guidelines for identifying ELLs for special education services vary significantly across the nation. Depending on the grade level and school context, there is evidence of both over- and under-representation of ELLs with special education designations (Bedore & Peña, 2008).

While no empirical results suggest that disabilities should occur more frequently in some subgroups than in the larger population, Bedore and Peña have found that minorities have been disproportionately represented in special education, particularly in high-incidence disability categories such as learning disabilities or speech and language impairment. (Minorities do not appear to be over-represented in low-incidence, medically diagnosed disability categories such as visual or hearing impairment.)

Although, broadly speaking, English language learners' representation in disability categories is comparable to that of the general population, disaggregating data by grade level uncovers a different pattern. Recent data based on the U.S. Department of Education's Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K) show that ELLs are under-represented in special education in kindergarten and first grade relative to all students, but by third grade they appear to be over-represented in special education. Also, ELLs with genuine special education needs appear to be identified for services later than their native English speaking peers. McCardle, Mele-McCarthy, Cutting, Leos, and D'Emilio (2005) found an increase in the identification of ELLs with learning disabilities in grades four through six, about two or three years later than the grades in which native English speakers are identified.

In summary, English language learners may be inappropriately placed in special education due to their limited English proficiency and low academic achievement, and at the same time, English learners with special needs may be overlooked for services on the assumption that their difficulties are related exclusively to a lack of full English proficiency. Both determinations have a negative effect on the accelerated progress English learners must make in order to catch up to their peers.

The role of assessment in identifying English language learners with disabilities

Minnema, Thurlow, Anderson, and Stone (2005) reviewed the literature on ELLs with disabilities in the context of ELLs' participation in large-scale assessments. The following year, Wilkinson, Ortiz, Robertson, and Kushner (2006) summarized three sources of academic problems that have implications for assessing and identifying language or learning disabilities in ELLs:

- **Deficiencies in the daily learning environment.** Many students, both English learners and native speakers, lack access to high-quality instruction and adequate opportunities to learn.
- **Lack of access to differentiated instruction** that addresses ELLs' specific educational needs. Many academic problems are likely the result of a combination of these first and second concerns and have implications for mainstream instruction as well as for ELL instruction.
- **Difficulties resulting from a disability** that must be addressed through special education services.

Test sensitivity

A system based on assessment results raises concerns about how results are used. Any test designed strictly to identify whether a learner is above or below a cut-point is insensitive to fine distinctions such as those between beginning and early intermediate students. It will provide little or no information on which to base interventions for individual students who are struggling.

For example, although proficiency tests have been, and will continue to be, designed to evaluate schools' success in moving English learners toward English proficiency, states and districts use them for other purposes for which

they are not designed. For example, districts in one state use a single standardized test for initial placement, annual monitoring, reclassification of students, and informing decisions about interventions for struggling learners. Given the test's psychometric properties and the complexity of language proficiency, this single measure cannot possibly serve all four purposes well.

Multiple sources of data

A basic educational principle is that any decision about support services and programming should be based on data that are consistent across multiple sources of information. The need for multiple sources of data to guide educational programming applies especially to identifying ELLs who have a language or learning disability. Multiple data sources help to prevent misclassifications and the oversimplification of decisions that must take into account child-level skills, prior access to support services, and environmental factors such as the instructional context and opportunities to learn.

Multiple data sources also help ensure that the information obtained is reliable and consistent over time and across similar tasks and maximizes a student's opportunities to demonstrate mastery (Assessment and Accountability Comprehensive Center, 2007). In assessing a learning disability, for example, multiple data sources can include language proficiency test scores, performance on diagnostic measures of language processing and reading skills, academic achievement measures, parent reports of language and literacy abilities and practices, and teacher ratings.

Early identification of ELLs at risk for reading difficulties

Research with English learners in the primary grades suggests that phonological processing tests are better measures of word reading skills than are tests of oral language proficiency, such as vocabulary and grammatical sensitivity (Lesaux & Siegel, 2003; Limbos & Geva, 2001). In other words, oral language providiency tests do not provide enough information for English learners at risk for early reading difficulties—those with difficulty "cracking the code" (Chiappe & Siegel, 1999; Chiappe, Siegel, & Gottardo, 2002; Chiappe, Siegel, & Wade-Woolley, 2002; Da Fontoura & Siegel, 1995; Geva, Yaghoub-Zadeh, & Schuster, 2000; Lesaux & Siegel, 2003; Limbos & Geva, 2001; Lindsey, Manis, & Bailey, 2003).

Consequently, many English learners are overlooked for early reading intervention because of their limited English proficiency; educators and clinicians alike assume that their reading skills will develop with increased oral proficiency. In fact, ELLs in the primary grades who struggle with early reading skills, such as sound-symbol correspondence and word recognition, may benefit more from intervention services for struggling readers than from ESL instruction that emphasizes conversational proficiency.

To complicate matters, many early literacy screening batteries focus on print awareness, phonological awareness, and letter-word recognition, and seldom measure vocabulary knowledge. This poses problems because learners with low vocabulary knowledge must be identified as early as possible and given effective, explicit instruction in vocabulary, especially academic vocabulary, which is the language of print and content-area knowledge.

These factors suggest that classroom teachers—and those who support them—need training in language and literacy development in the context of an early intervention model for kindergarteners that includes a comprehensive language and literacy screening and assessment system.

Language skills in English language learners

According to Goldstein (2006), research has led to two conclusions regarding language skills in bilingual children:

- Extensive research comparing typically developing bilingual and monolingual children suggests that **both groups have similar, although not identical, language skills** (Genesee, Paradis, & Crago, 2004; Marchman, Martinez-Sussman, & Price, 2000; Pearson, Fernandez, & Oller, 1993).
- Research findings suggest that **language skills in bilingual children are distributed across the two languages** (Quiroga, Lemos-Britton, Mostafapour, Abbott, & Berninger, 2001).

In fact, there is reason to believe that children may possess a skill in one language and not in the other. For example, a child may show normal comprehension skills in the first language and have comprehension difficulties in the second language, or vice versa. Similarly, a child who is learning to read words in both a transparent language such as Spanish and an opaque language such as English may show different levels of skills in each language (Koda & Zehler, 2008).

A smaller body of research has found similar characteristics among bilingual and monolingual children with language disabilities. Acquiring a second (or third) language does not necessarily cause or exacerbate a language disorder, but it may complicate the process of identifying a student for language or special education services. For example, a student may show poor performance of a reading skill in English but average or good performance of the same reading skill in his or her native language.

The paucity of data on the speech and language skills of typically and atypically developing bilingual children makes assessing and treating language disorders more difficult. A pervasive challenge associated with comprehensive ELL assessment, particularly for children who struggle, concerns a student's native language knowledge and skill level. Many educators and clinicians are interested in whether an ELL who struggles with a reading skill faces similar challenges in his or her native language. Does the difficulty relate primarily to the skill *in English* (second language learning) or is it a more pervasive difficulty present in *both languages*?

A teacher or clinician working with a child who has phonological awareness difficulties in English may question whether the child has difficulties with rhyming or other phonological awareness tasks in his or her native language. Similarly, a speech pathologist responding to a referral is likely to have questions about the depth and quality of a child's native language skills. Answers to these questions can augment information from existing data sources and help inform instructional or intervention efforts.

Goldstein (2006) makes three recommendations for assessment based on emerging themes in research on language development and disorders in bilingual students:

- Complete a **comprehensive assessment** to examine skills in **both languages**;
- Consider **sociolinguistic variables** (e.g., age, differentiated instruction, opportunities for intervention) by examining the interaction among them and the bilingual child's language skills; and
- Consider providing **intervention in both languages** in order to support the child's development of the two languages simultaneously.

Each recommendation has clinical implications (see Goldstein, 2006) for professionals who serve students with these disorders.

Native language assessment

Where possible and appropriate, native language assessment can be useful. Comprehensive assessments in both languages provide information on a child's knowledge, skills, abilities, and instructional needs in each language as expressed through different modalities (listening, speaking, reading, and writing). For instance, a child may have better listening skills in one language than the other. Standardized measures normed with monolingual children do not always provide a valid representation of the true language abilities of bilingual children, but standardized measures may provide relevant information when used as one source of data in a comprehensive evaluation.

An important cautionary note: The majority of ELLs in American classrooms today do not receive native language instruction or support. A student's development of most of the skills assessed for diagnostic, progress monitoring, or summative purposes depends on his or her *instructional opportunities*. Therefore, the results of native language assessment for children who have not received (or no longer receive) native language support *must be interpreted with great care*. This information should not be used for accountability or evaluative purposes, but rather for strictly informal, clinical, or diagnostic purposes, or to help intervention planning, with the goal of promoting the ELL's development.

On assessments designed for native English speakers, *presenting the instructions* in an English learner's native language may help ensure that the child understands what is required, regardless of his or her competence to perform the task in English (Francis, 2003). Here again, this practice requires careful consideration of the match between the child's native language experience and proficiency level and instruction in his or her native language. Some ELLs are in fact monolingual English speakers with little or no proficiency in their first language.

Key points about assessment

- Assessment plays a crucial role in the educational experience of *all* ELLs: assessment results inform their educational placements, including support services, and serve to improve their academic outcomes.
- English language learners may be overlooked for language support services or placed in language support classes that are incompatible with

their academic abilities. Evidence suggests that many ELLs who do not qualify as limited English proficient may have urgent educational needs that assessment results do not reveal.

- Entry and exit criteria for English language support programs focus predominantly on reading, writing, listening, and speaking skills and do not necessarily consider academic skills related to content-area success, which may hinder ELLs' ability to grasp and master academic content.
- Language and academic demands in the primary grades differ significantly from those in secondary school. An elementary school student's ELL designation as proficient does not guarantee that he or she will meet expectations in a high school classroom or on high school level assessments.
- Multiple sources of assessment data should guide any educational programming decisions, especially in identifying ELLs with language or learning disabilities.
- Where possible and appropriate, native language assessment may contribute to a more complete picture of an ELL's knowledge, skills, abilities, and instructional needs. However, for ELLs who are *not* receiving native language instruction, this assessment information should not be used for accountability or evaluative purposes, but strictly for informal, clinical, or diagnostic purposes, or to help intervention planning to support the learner.
- Providing test instructions in the native language may enable some students to maximize their opportunity to demonstrate what they know.
- The Response to Intervention model, discussed in the Instruction and Intervention section of this publication on page 16, depends on effective, ongoing assessment in all classrooms, beginning in kindergarten. Early literacy screening batteries should include measures of print awareness, phonological awareness, and letter-word identification, as well as measures of vocabulary knowledge or oral language proficiency. At-risk learners—students with low vocabulary knowledge or reading readiness skills—must be identified as early as possible and provided with effective, explicit instruction.

INSTRUCTION AND INTERVENTION

The research base on interventions to support struggling ELLs is not as well-developed as the research base on native English speakers, so it is not yet possible to draw directly on robust evidence in all areas of language and literacy instruction to inform practice. In light of data on this population's limited academic success, however, there is a pressing need to advance research and practices in this area immediately.

Recent reports have begun to provide much needed information on ELLs with special needs. For example, *English Language Learners with Special Education Needs*, edited by Artiles and Ortiz (2002), provides information on identification, assessment, and instruction. In addition, three previous research reviews focused on interventions for ELLs with disabilities or at risk for reading difficulty (August & Shanahan, 2006; Klingner, Artiles, & Barletta, 2006; What Works Clearinghouse, 2007). In their recent review of the research on ELLs who are struggling readings and ELLs with disabilities, Klingner and colleagues (2006) addressed assessment and intervention, among other topics.

The What Works Clearinghouse (WWC) review (2007) focuses on reading, language, and mathematics instruction for ELLs, but here we focus on only the language and reading studies cited in the WWC report. One finding of the WWC is that a number of reading interventions in current use lack significant evidence to warrant claims about their success in building ELLs' reading skills. While the studies examined (through 2006) demonstrated some potentially positive results, the WWC report called for further experimental evidence to support claims of successful interventions. Nevertheless, we explore the findings from these studies in this document and highlight some suggested promising practices.

Developing Literacy in a Second Language: Report of the National Literacy Panel (August & Shanahan, 2006) includes a chapter that reviews research examining effective literacy teaching for ELLs (Shanahan & Beck, 2006). Another chapter contains a review of research on literacy instructional practices for children with special needs (August & Siegel, 2006). This review includes 12 studies, each with reading as a student outcome measure, conducted with ELLs in special education. Despite small samples and lack of experimental methods, the review suggests some promising instructional approaches.

Most important, given the research base at this time, the findings support the assumption that what works in teaching struggling native speakers to read English also works with ELLs.

The key factor of academic language skills

It is important to distinguish academic language skills from conversational language skills. Many ELLs who struggle academically have well-developed conversational English skills. To succeed academically, students need to develop the specialized language of academic discourse, which is distinct from conversational language. This is particularly salient when we consider the large number of English learners who have good word-reading skills but weak comprehension skills. Many of these learners—especially in the upper elementary, middle, and high school years—have insufficient English vocabulary levels, particularly in the realm of academic language, to support effective text comprehension. This lack of proficiency in academic language not only limits these students' ability to comprehend and analyze texts, it limits their ability to write and express themselves effectively, and can hinder their acquisition of academic content in all academic areas, including mathematics.

Facility with academic language requires many skills. Knowledge of vocabulary (including the multiple meanings of many English words) that appears more often in text than conversation, the ability to handle increasing word length and complexity over time, and grasping complex sentence structures and the corresponding English syntax are all skills in understanding academic language. Other academic language skills include understanding the organization of expository paragraphs and the role of transitions such as *therefore* and *in contrast*

Academic vocabulary plays an especially prominent role as students read to learn about concepts, ideas, and facts in content-area classrooms such as mathematics, science, and social studies. ELLs encounter many words that are not part of everyday classroom conversation. Words such as *analyze*, *compare*, and *sustain* are necessary to comprehension and acquisition of knowledge, and are more likely to be encountered in print than in speech (see Scarcella, 2003 on academic language and Nagy & Anderson, 1984; Nagy & Scott, 2000; Stahl, 1999; and Stahl & Nagy, 2006 on reading vocabulary).

However, when making instructional choices for interventions, or designing such interventions for ELLs, practitioners must be cognizant of the impact oral language development has on reading, and take into account students' abilities in this area. For example, while many ELLs who have good conversational English, well-developed word reading skills, and weak comprehension skills are in need of intervention focused on text-based vocabulary instruction, little research has been conducted in this area. Some intervention work, however, has shown the positive influence of oral language activities on English reading outcomes (Pollard-Durodola, Mathes, Vaughn, Cardenas-Hagan, & Linan-Thompson, 2006). Understanding a student's oral language proficiency in the native language as well as in English is crucial in determining the sources of reading difficulty and in determining disability (Gottardo, 2002) and can inform effective instructional practices to improve literacy outcomes.

Interventions with some demonstrated success

In making recommendations, we discuss interventions and specific programs[2] that have demonstrated success in remediating reading difficulties for ELLs with identified language impairment or reading or learning disabilities, or ELLs who are performing significantly below their peers in reading achievement. Our recommendations are informed by the broader reviews discussed herein and by further studies found through a database search (especially those published since 2004). The search focused on studies of interventions conducted with students who were recommended by their teachers for intervention, or who received low scores on basic reading measures (e.g., phonological awareness, word attack, or fluency) or achievement measures, typically below the 25th percentile—ELLs at the lowest ends of the achievement spectrum.

The recommendations that follow concern the use of the Response to Intervention (RTI) framework in delivering instruction and interventions to English language learners (recommendation 1), interventions for students in the early grades (recommendations 2, 3, and 4), and interventions for students in upper grades (recommendations 5 and 6). For illustration purposes, a scenario showing the use of RTI appears in recommendation 1 and a second scenario showing a middle school intervention appears in recommendation 6. Other recommendations include one or more examples for illustrative purposes.

[2] The information presented in this part of the report cites empirical, peer-reviewed research about the features of interventions that have been found to be successful for at-risk ELL students. While there may indeed be other effective programs in use, we only present those that have been shown effective via empirical evaluation. This document does not represent endorsement or promotion of such programs; rather, it presents a report on the relevant research in this area. The absence of an intervention summary in this report does not necessarily mean that the intervention is not effective, only that empirical, peer-reviewed research on its outcomes was not available.

1 RECOMMENDATION

Deliver instruction within a Response to Intervention (RTI) model.

The Response to Intervention (RTI) model, written into IDEA as the primary approach for identifying students with learning difficulties, emphasizes high-quality, appropriate instruction for all students, coupled with progressively more intensive interventions for struggling students. The RTI premise is that at-risk students should receive effective instruction with progress monitoring before being considered for special education. The model emphasizes a careful match between student difficulties and intensive, targeted classroom-level instruction and intervention prior to consideration for special education placement (Fuchs, Fuchs, & Speece, 2002; Fuchs, Mock, Morgan, & Young, 2003).

Educators consider placing a student in special education when they have evidence of persistent difficulties in spite of targeted classroom-based interventions. Data on a student's learning rate and performance levels, the key components of the RTI model, must be collected to guide educational decisions. The RTI model helps avoid unnecessarily high rates of special education placements, especially for minority children, when the students have not received appropriate instruction.

The RTI approach is frequently conceptualized as a three-tiered model of instruction (Vaughan, Linan-Thompson, & Hickman, 2003), although in some cases there can be more tiers. Tier I refers to the core curriculum of daily, research-based reading instruction. Progress of all students is typically assessed at three points during the school year: fall, winter, and spring. These progress monitoring data indicate whether students are responding adequately to instruction. At each assessment period, some children are flagged for additional support in Tier II.

Tier II of the RTI model focuses on students who are not responding satisfactorily to the daily instruction associated with the core curriculum. Flagged as "at risk," these students receive supplemental instruction and intervention, typically in a small-group format more than once a week. Their progress is monitored more frequently than Tier I students.

Tier III provides interventions for students who do not respond satisfactorily to the combination of Tier I (core curriculum) and Tier II (small-group targeted intervention). These students typically participate in daily research-based interventions delivered individually or in small groups, and their progress is monitored closely, often once or twice a week.

Only when students do *not* respond to classroom-based instructional intervention(s) should they be tested and potentially referred to special education services. RTI, then, serves as a scaffold for understanding students' needs; it helps teachers develop appropriate methods to address those needs instructionally and ultimately to identify students whose instructional needs cannot be met effectively in the regular classroom or intervention context and may need special education services.

Researchers have begun to examine the efficacy of the RTI model as a framework and several interventions have been found successful for teaching reading to struggling ELLs (McMaster, Kung, Han, & Cao, 2008; Linan-Thompson, Vaughn, Prater, & Cirino 2006; Linan-Thompson, Cirino, & Vaughn, 2007; Vaughn, Mathes, Linan-Thompson, & Francis, 2005).

Intervention for ELLs experiencing reading difficulties in the primary grades increases the likelihood that they will perform better in school and dramatically decreases the likelihood that they will need special education services later. Even for those who do ultimately need special education services due to a disability, the earlier these students receive targeted support for their difficulties, the better.

SCENARIO

Supporting struggling ELLs in a classroom-based RTI model

Ms. Smith, a second grade teacher, sits before a small group of Spanish-speaking ELLs who are struggling with reading in English. Based on her observations as well as criterion-referenced assessments of their reading and language skills, Ms. Smith has gathered the students for targeted instruction in English reading and language skills. Two students have been flagged as at risk for serious difficulties (e.g., a language, reading, or learning disability) due to delayed reading and language skills; the remaining three performed below grade level on the state English language and reading achievement tests.

Ms. Smith has also noted that this group of students has difficulty completing reading tasks successfully during classroom reading instruction. However, she is not sure whether the students' difficulties on these tasks are related to low English language skills or to problems beyond language proficiency. Ms. Smith began a 30- to 35-minute daily intervention two months into the school year. She provides explicit instruction in phonological awareness, phonics, vocabulary development, and writing. The students

also have opportunities to use oral language and to practice reading aloud to each other and to Ms. Smith.

Regular progress monitoring using informal assessments inform Ms. Smith's subsequent lesson planning. If she finds that a particular student is not progressing, she tries another approach, often consulting with other teachers or specialists. This intervention is likely to inform her understanding of the students' individual needs and of how well they respond to intervention on a range of English language and reading skills, information that will help her determine whether her students need further remediation and intervention or formal evaluation for a special education plan.

Today's lesson continues the group's work on developing a stronger understanding of the relationship between sounds and spoken words and building vocabulary. The students are practicing oral segmenting and blending, two crucial skills for promoting oral and written language development. Ms. Smith begins:

Ms. Smith: *Today we are continuing with yesterday's work, focusing on the sounds of the words in our story. Remember that words are made up of different sounds and that when we change the sounds in the words we change what the word means. Who remembers that? [hands up]*

Ms. Smith: *Good. Today we are going to keep focusing on the sounds in words. Can you tell me what word this is? [shows a card with the word light]*

Alex: *Light.*

Ms. Smith: *Excellent, Alex. Does everyone agree? Can we all say the word together?*

Students: *Light.*

Ms. Smith: *Now, let's think about the sounds in that word. Tell me the first sound that you hear.*

Students: */l/*

Ms. Smith: *Great! Now, what word would we have if we changed the sound /l/ for /t/?*

Students: *Tight.*

Ms. Smith: *Good job.*

After a discussion of other words that start with /l/, the lesson continues with a discussion of the multiple meanings of the word "light": for example, "the box is light" (does not weigh much), "the color is light" (not dark). This part of the lesson gives students explicit instruction in oral language development as well as time for discussion about word meanings, which contributes to their vocabulary development.

DISCUSSION

As Ms. Smith continues to build the students' knowledge in phonics and academic vocabulary, this intervention may significantly affect students' reading outcomes and improve their ability to participate in classroom discussions. Ongoing progress monitoring will provide Ms. Smith with insights into her students' growing abilities and reveal areas in which they need further support or intervention. Using research-based interventions in regular classrooms is one way teachers can work effectively with students who may be struggling but do not need placement in special education. Furthermore, the RTI framework helps Ms. Smith determine whether students simply need more intensive instruction and intervention or referral to special education services. This important distinction can give students the time they need to develop the English language skills necessary for reading success.

2 RECOMMENDATION

Explicit, intensive intervention should be closely matched to student difficulties.

Explicit instruction involves teacher-led activities that overtly demonstrate the steps in completing a specific task. This is accomplished through articulating goals, modeling task completion, and evaluating a student's ability to complete it independently (Linan-Thompson & Vaughn, 2007). Most intensive remedial interventions provide frequent opportunities for guided student practice through the use of skill-specific strategies. In addition, as suggested in the discussion of the RTI model, ongoing progress monitoring during the course of an intervention must guide planning and subsequent instruction.

Research with struggling English language learners suggests that interventions are more effective when they are closely and carefully matched to the skills that are a source of difficulty. Such interventions may incorporate developmentally appropriate models of instruction in which teachers consider and build on students' initial abilities in a particular domain (Gerber, Jimenez, Leafstedt, Villaruz, Richards, & English), 2004; Leafstedt, Richards, & Gerber, 2004). They might also use explicit instruction techniques in skills known to be important for reading, such as phonological awareness or vocabulary (Pollard-Durodola et al., 2006). Regardless of the type of skills an intervention targets, the focus on explicit instruction and appropriately scaffolded development of

reading skills is essential in supporting ELL students who are at risk for reading difficulties.

EXAMPLE

The Early Reading Project[3] is a developmental intervention research project that focuses on phonological awareness, beginning with onset and rime and followed by segmentation and blending. In a classroom study, students received explicit instruction in English phonological awareness in small groups over ten half-hour sessions by tutors who were trained in explicit instruction techniques and the specific phonological skills targeted in each session. The sessions focused on increasing students' early phonological awareness skills as they responded to structured prompts and activities using scaffolds supplied by the tutor.

Bilingual assessors tested students before and after the intervention. Although the assessments were conducted in both English and Spanish, students received directions in their dominant language, determined by asking each student whether he or she spoke English, Spanish, or both.

For a group of 37 Spanish-speaking kindergarten ELLs identified as at risk this intervention proved effective in increasing students' English and Spanish phonological awareness skills. Specifically, on measures of rime, phoneme segmentation, decoding, and word recognition skills, the children who received the intervention caught up to their typically performing peers by the end of first grade (Gerber et al., 2004).

A second study of this phonological awareness intervention provided ten 30-minute small-group instruction sessions to an intact kindergarten classroom of 18 students. This classroom comprised 17 Spanish-speaking ELLs and one student who spoke English at home but had been exposed to Spanish. The comparison group comprised 46 kindergarten students who were comparable to the intervention students on family income and parent education but were primarily exposed to English at home. In order to evaluate responses to intervention on different initial phonological awareness skills, students receiving the intervention were placed into ability groups based on their pretest word-reading scores and teacher recommendations.

The researchers found that among the highest performing at-risk students, those who received the intervention showed the most dramatic gains, even outperforming the high-ability comparison group on phonological awareness tasks in English administered long after the intervention had been completed (Leafstedt et al., 2004). The intervention also improved the lowest-performing students' outcomes on early phonological awareness tasks.

[3] The Early Reading Project is part of an ongoing longitudinal research study that aimed to extend the theoretical and practical understanding of the role of phonological-processing abilities for young students who are acquiring second language reading skills.

> Because the focus of the intervention for these students was early phonological awareness skills, their increases in these skills indicate that they responded to the intervention. The researchers hypothesized that achievement on later phonological awareness tasks for the lower achieving group might eventually improve with further intervention, particularly if the intervention continued to focus on building students' skills developmentally. Given the success of the intervention for students who started with higher levels of phonological awareness skills, this seems promising, even for an intervention that was delivered only once a week for 30 minutes.

These findings demonstrate the importance of building on students' existing skills in developmentally appropriate ways. Because phonological processing skills develop over time and are cumulative, it is important that any intervention in this domain be delivered with an understanding of the student's current level of phonological skills and through an intervention that builds on those skills. For example, some kindergartners may need work developing basic phonological skills such as onset-rime recognition, and would not profit from more complex work, while others may be ready for more advanced phonological skills such as blending and more complex work.

3 RECOMMENDATION

Early literacy interventions should focus on a combination of skills.

Many commercial reading intervention programs focus on a combination of literacy-related skills, including phonemic awareness, fluency, explicit phonics, reading connected text and vocabulary. While many of these programs have been tested for their effectiveness with struggling monolingual English readers, research on their use as interventions for ELLs struggling to learn to read is only now emerging.

Although research has been done on core English language arts curricula that have a positive impact on ELLs' achievement, we focus here strictly on reading programs that have been explicitly used as interventions in the research on Tier II instruction for at-risk ELLs. These intervention programs, mostly delivered in English to match the language of instruction, appear to show promise in improving struggling ELLs' early reading skills (Escamilla, 1994; Linan-Thompson & Hickman-Davis, 2002). However, we caution the reader that many of the studies with supporting evidence for the programs used small sample sizes.

EXAMPLE

Read Well[4] focuses on building fluency, but also includes explicit phonics and vocabulary instruction. It is designed for small-group instruction, with groupings based on students' skill levels. Ongoing progress monitoring measures and other assessment tools designed to inform instruction are elements of the program.

The program emphasizes five components of reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension. Students receive 30 minutes of daily small-group intervention which combines teacher-directed explicit lessons in phonics and decoding with independent activities. Working with material appropriate to their skill levels, students read stories along with a recording to build fluency, phonemic awareness, and phonics skills. They also participate in repeated reading activities, using a timer to increase fluency rates, accuracy, speed, and expression. Other activities include reading key words and listening to definitions, writing predictions about the story topic, answering reading comprehension questions, and retelling the story.

In one study, *Read Well* had a positive impact on English decoding, word identification, and reading comprehension skills for a group of bilingual Spanish-speaking first- and second-graders with below-average decoding skills. These students participated in the 40-minute intervention sessions three times a week for 10 weeks (Denton, Anthony, Parker, & Hasbrouck, 2004).

EXAMPLE

Read Naturally[5] has also been effective in building oral reading fluency in Spanish (De la Colina, Parker, Hasbrouck, & Lara-Alecio, 2001). In another study, Read Naturally successfully improved English language learners' outcomes in combination with *Reading Mastery*[6], a program that focuses on explicit phonics instruction, phonological awareness, and decoding skills (Kamps et al., 2007).

Reading Mastery is designed for students ages 5–14 and focuses on phonics, fluency, and comprehension-building activities using explicit instruction. Students read stories composed of words they have already learned to decode, which is intended to build fluency and allow them to focus on word meanings. Students participate in daily small-group instruction during which the teacher provides explicit instruction characterized by small steps designed to ensure that students understand each new concept. This is followed by student practice of these new concepts and skills, with a

[4] *Read Well* is a K–2 program (Sopris West).

[5] *Read Naturally* includes teacher modeling, repeated reading, and progress monitoring. It focuses on reading fluency and vocabulary for K–12 students (Read Naturally).

[6] *Reading Mastery* is one of several curriculum components of the Scientific Research Associate's Direct Instruction curriculum, designed to provide systematic instruction in English language reading (SRA McGraw Hill).

focus on reading, writing, listening, and speaking. In addition, the program includes assessments to be used for group placement prior to intervention, as well as progress monitoring to identify student needs. The program provides teachers with lesson plans and integrated activities.

EXAMPLE

Several reading intervention programs conducted in the language of instruction have shown promise. *Corrective Reading*[7] provides students ages 7–14 with intensive intervention in decoding and comprehension. The intervention lessons contain four levels for decoding and four levels for comprehension. The program begins with decoding strategies, followed by fluency-building activities. For students who are strong decoders but who have low comprehension skills, *Corrective Reading* has lessons on vocabulary, information, and comprehension strategies. The program is intended to develop higher order thinking and reasoning skills necessary for strong readers.

Both *Reading Mastery* and *Corrective Reading*, which focus on explicit phonics instruction, phonological awareness, and decoding skills, have demonstrated success when provided as interventions for struggling ELLs with and without disabilities. For example, for a group of 19 at-risk Hispanic children, improvement in reading abilities matched those of their at-risk non-ELL peers following daily participation in 25–30 minutes of supplemental reading instruction over the course of the school year. At the end of the second year in which they received these interventions, students had significantly higher scores on measures of English word recognition, decoding, reading vocabulary, oral reading fluency, and reading comprehension than their matched controls (Gunn, Biglan, Smolkowski, & Ary, 2000; Gunn, Smolkowski, Biglan, & Black, 2002). In addition to having been identified as at risk for literacy difficulties, these children also displayed aggressive behavior, as rated by their teachers, demonstrating that these interventions may be successful for students with multiple risk factors, and also likely demonstrating the relationship between early academic difficulties and behavior problems.

EXAMPLE

Proactive Reading[8], a reading intervention program designed to enhance ELLs' reading outcomes, can be conducted in either English or Spanish. (The Spanish version is called Proactiva.) The program is designed to promote fluency with good comprehension

[7] *Corrective Reading* is a comprehensive intervention program designed for students in grades 4–12 (SRA Corrective Reading).

[8] *Proactive Reading* is a curriculum designed for struggling readers that features intensive small-group lessons focused on learning and reviewing letter-sound correspondences, sounding out and reading words rapidly, and spelling words in isolation. The Proactiva reading intervention is designed for Spanish-speaking children in the first grade (SRA McGraw Hill).

by building students' reading skills and strategies and reducing errors. The program features instruction integrated across five instructional strands: phonemic awareness, orthographic knowledge, word recognition, fluency, and comprehension and includes an oral language component.

Proactive Reading uses repetitive language, routines, and gestures; high levels of interactive dialogue between teachers and students; and increased opportunities for students to respond and receive feedback. Teachers use explicit instruction to engage students in small-group activities centered on phonemic awareness, phonetic decoding, reading fluency, building vocabularies, and comprehension. Students receive this comprehensive intervention in the language (Spanish or English) of their regular classroom instruction 50 minutes daily for seven months.

Proactiva uses similar types of activities and targets the same set of reading skills, but is conducted in Spanish. Students who participated in both the *Proactive Reading* and *Proactiva* studies initially scored below the 25th percentile in word reading and were unable to read more than one word on a simple word list. Students in the Spanish intervention group outperformed the control group on measures of phonological awareness, letter-sound identification, listening comprehension, word attack, passage comprehension, and decoding fluency (Linan-Thompson, Cirino, & Vaughn, 2007; Linan-Thompson, Vaughn, Prater, & Cirino, 2006; Linan-Thompson, Vaughn, Hickman-Davis, & Kouzekanani, 2003; Vaughn, Cirino, Linan-Thompson, Mathes, Carlson, et al. 2006; Vaughn, Mathes, Linan-Thompson, & Francis, 2005; Linan-Thompson & Hickman-Davis, 2002).

However, those in the Spanish intervention group demonstrated little transfer of Spanish reading knowledge into English. This finding suggests an interesting relationship between the language of instruction and students' outcomes in both their native and new language. For instruction especially, teachers must be aware of students' skills in both languages, and the ways in which development of those two languages may intersect and build on each other. While a discussion of the language of instruction is not within the scope of this publication, it bears mention here as an important consideration in determining both the type of intervention students may need and the appropriate assessment of students' skills.

Researchers found similar results for students in the English intervention; they outperformed their matched controls in rapid letter naming, phonological awareness, letter-sound identification, word attack (decoding), passage comprehension, and dictation (Linan-Thompson, Cirino, & Vaughn, 2007; Linan-Thompson et al., 2006; Linan-Thompson et al., 2003; Vaughn, Cirino et al., 2006; Vaughn, Mathes, Linan-Thompson, & Francis,

2005; Vaughn, Linan-Thompson et al., 2006). In addition, students who received the intervention in English were able to transfer their English reading knowledge successfully to Spanish reading skills.

4 RECOMMENDATION

Peer-assisted learning is an effective intervention strategy for ELLs identified with a disability in the early grades.

In peer-assisted learning, students are taught to provide individual instruction to other students.

EXAMPLE

Peer-Assisted Learning (PALS)[9] is a set of strategies that grew out of work focused on Classwide Peer Tutoring (Delquadri, Greenwood, Whorton, Carta, & Hall, 1986; Greenwood, Delquadri, & Hall, 1989), and has been demonstrably successful in improving students' reading outcomes. The PALS approach incorporates peer-tutoring and practice in phonological awareness, phonics, fluency, and comprehension into whole-classroom instruction. In order to be developmentally appropriate, activities differ across grade levels. For example, activities for students in grades 2–6 include reading and retelling stories with a partner, paragraph shrinking, and predicting, while activities for K–1 students focus on phonological awareness, letter-sound correspondence, and sight-word recognition (Fuchs et al., 2001). The PALS approach has demonstrated its effectiveness in improving reading outcomes for English proficient students with learning disabilities in general education classrooms (Fuchs, 1997; McMaster et al., 2008; Simmons, Fuchs, Fuchs, Hodge, & Mathes, 1994; Simmons, Fuchs, Fuchs, Mathes, & Hodge, 1995). More recently, PALS has shown promise for ELLs both with and without learning disabilities (Saenz, Fuchs, & Fuchs, 2005; Calhoon, Al Otaiba, Cihala, King, Avalos, 2007).

In a study conducted with ELLs in grades 3–6, matched on a variety of characteristics (i.e., age, English proficiency, grade, grade transitioned to English language arts in English, migrant status, reading grade level, gender, special education status, years in special education, reading score), PALS proved effective in promoting students' nonsense word fluency, oral reading fluency, and letter-naming fluency skills in English (Saenz et al., 2005).

[9] Peer-Assisted Learning is associated with the Vanderbilt Kennedy Center for Research on Human Development, Nashville, TN.

Another study, conducted with 76 first-grade Spanish-speaking ELLs with and without learning disabilities, demonstrated the efficacy of PALS in improving students' reading comprehension skills in English (Calhoon et al., 2007). In both studies, the intervention condition was characterized by 35-minute sessions three times a week for 15 and 20 weeks, respectively. Pairs of students, one high- and one low-performing reader, took turns in the tutor and tutee roles. The pairs worked on a variety of reading tasks, including phonological awareness, phonics, fluency, comprehension, sound and word segmentation, story retelling, prediction relay, and paragraph shrinking. The stronger reader served first as tutor, listening for errors and asking the tutee to correct his or her own errors, then praising the correct response. This gave students the opportunity to engage in reading while simultaneously using oral language and interacting with their peers in English.

5 RECOMMENDATION

Instruction for at-risk ELLs and ELLs with language or learning disabilities should build vocabulary and background knowledge.

While most good readers have well-developed vocabularies and background knowledge, many poor readers and students with learning disabilities—ELLs and native speakers alike—lack these tools to support their text comprehension. Intervention programs that develop these skills through a variety of instructional methods for ELLs with reading difficulties or disabilities appear to have some positive effects on reading outcomes. Studies that focus on building students' vocabulary skills (Perez, 1981; Rousseau & Tam, 1991; Perozzi, 1985; Bos, Allen, & Scanlon, 1989; Tam, Heward, & Heng, 2006) and those focused on building specific reading skills and strategies (Echevarria, 1996; Rohena, Jitendra, & Browder, 2002; Rousseau, Tam, & Ramnarain, 1993) have shown success with small samples of ELLs who have language or learning disabilities.

Interventions focused on vocabulary-building activities have successfully improved struggling ELLs' word reading skills. For example, eight Hispanic males ages 8 to 11 who were diagnosed with speech and language impairment in both Spanish and English benefited more when teachers discussed a list of English vocabulary words—including word meanings and pronunciation—and read a story aloud in English, than they did when the students read the passages to themselves (Rousseau & Tam, 1991).

6 RECOMMENDATION

Instruction and interventions used with older ELLs who have learning disabilities should use cognitive strategies.

ELLs with learning disabilities or language disorders would benefit from active instructional strategies, such as summarizing, question generating, clarifying, and predicting, that would capture their attention and facilitate their engagement. These strategies provide opportunities for students to become leaders of interactive dialogue, to practice use of unfamiliar vocabulary, and to facilitate comprehension.

EXAMPLE

Reciprocal teaching is a type of instruction in which the teachers and students share responsibility for a dialogue centered on understanding the meaning of text. Students are required to use four reading strategies: summarizing, asking questions, clarifying misunderstandings, and predicting. Embedded within reciprocal teaching is the idea that learning takes place through social interactions with others and by interacting with more knowledgeable peers and teachers. Reciprocal teaching has been demonstrated to be effective for other groups of students who can decode text, but have poor comprehension skills (Palincsar & Brown, 1984). Some exploratory work has demonstrated the effectiveness of reciprocal teaching and cognitive strategies on developing ELLs' reading skills (Hernandez, 1991; Jimenez, 1997; Padron, 1986, 1992), and it appears to be a promising and effective instructional strategy.

Reciprocal teaching was shown to improve reading and oral language proficiency outcomes for 42 Spanish-speaking seventh and eighth grade ELLs who had learning disabilities (Klingner & Vaughn, 1996). Before the intervention, students were tested in both English and Spanish on the Woodcock Language Proficiency Battery (WLPB) and the Language Assessment Scales (LAS). All participants demonstrated second-grade level English decoding skills or were at least two years below grade level and their scores on achievement and intelligence measures differed by 1.5 or more standard deviations.

Groups of six or seven students received reciprocal teaching 40 minutes a day for 27 days. Participating students made gains in English reading comprehension over the course of the intervention; these gains were still evident one month following the intervention. Regardless of whether students started out with high or low English decoding abilities, all showed improvements in comprehension following participation

in the reciprocal teaching sessions. However, initial reading level and oral language proficiency were also related to student outcomes: students with higher initial skills tended to benefit more from the intervention, and students who scored low in both oral English and Spanish skills at the beginning did not appear to benefit from the intervention. Students' initial proficiency in their native language also appeared to play a role in their ability to develop second language proficiency, which indicates the importance of understanding not only students' initial English proficiency, but also their native language skills. This finding tells us that while the intervention has clear benefits for ELL students with learning disabilities, students' initial skills must be assessed in order to target the intervention appropriately (see also Recommendation 2, above).

SCENARIO

Supporting ELLs in Middle School

Mr. Gomez, the assistant principal at Santa Fe Middle School, is conducting an observation in Mrs. Jones's eighth grade U.S. History class. In preparing his observation form, Mr. Gomez notices that seven of her 24 students are ELLs, two of whom have been identified with reading learning disabilities. Mr. Gomez is curious about the use of differentiated instruction in Mrs. Jones' class, where students have been studying the Industrial Revolution for the last month. As he walks through the door, he sees posters on the walls displaying students' work. They include academic vocabulary from the lessons, such as patent, integration, monopoly, trusts, and federation, which students have used to explain the concepts embedded in their book chapter. The back table holds artwork that students have begun to produce to enhance their group projects.

The class is ready to start. Consistent with the lesson plan she emailed to Mr. Gomez, Mrs. Jones begins by asking the students to share their progress on the group history projects. Last week, while reading about the Industrial Revolution, the groups selected topics from the chapter and conducted research online. Each group's representative informs the class about the stage of its project. While the groups are reporting, Mr. Gomez notices that one student, Juan, has an English dictionary and a notebook labeled Glossary on his desk.

Once the groups finish reporting, Mrs. Jones asks the students to follow the reading on page 15, on labor unions. She discusses the different meanings of the word labor and asks students to give her a sentence for each meaning of the word. Then she calls on a student to read aloud and reminds the class to write in their glossaries any words that they do not understand. As the students follow the reading, Mrs. Jones walks around the

room monitoring on-task behavior. At some points, she strategically asks literal and comprehension questions:

Mrs. Jones: *Who were the Knights of Labor?*

Student: *They were a group of workers that looked after each others' rights.*

Mrs. Jones: *Correct. Now, why do you think they started as a secret organization?*

Student: *Because they were afraid.*

Mrs. Jones: *Great answer. Now tell me, why were they afraid?*

Student: *Because they needed their jobs and could be fired if their boss thought they were asking for too much.*

Mrs. Jones: *I understand. What you are describing is that the workers were afraid of retaliation. In this case, the workers were afraid that their employers would fire them for filing a complaint.*

The class finishes reading the section on labor unions, and Mrs. Jones asks the students to look up their glossary words in the dictionary and write a short definition of each. After 10 minutes, she asks the class to share their glossary words and the meanings. She uses each word in a sentence and asks the students to do the same. After discussing the words, the students meet in groups to continue working on their projects.

DISCUSSION

Mrs. Jones is a history teacher in a class that includes English language learners and students who have a disability. As an accommodation, her students have access to English dictionaries and glossaries that they can use daily and during assessments. Her strategies provide opportunities for students to apply academic vocabulary through discussion and daily work. She also encourages students to use their glossaries and provides time along with scaffolding techniques during class to discuss the different meanings of unknown words.

A note on professional development

Given the increasing diversity in classrooms across the nation, professional development efforts must target the capacity of content-area and language development teachers to meet their students' needs. Because today's laws and

policies require that the general curriculum be accessible to all students and that accommodations be in place during instruction and assessment, teachers must be prepared to work with children who have a range of special needs. Many ELLs are likely to miss out on appropriate instruction because their teachers lack an understanding of how their needs differ from those of their typical peers (Zehler et al., 2003). In fact, in 2002, only 12.5 percent of teachers who taught ELLs had received eight or more hours of professional development related to serving these learners during the preceding three years (National Center for Education Statistics, 2002). In 2001–2002, an estimated 24.4 percent of all U.S. public school teachers worked with at least one ELL identified with a disability (Zehler et al., 2003). Survey results reveal that fewer than 15 special education teacher programs in the nation include courses in bilingual special education (Paneque & Barbetta, 2006). Yet research suggests that teachers with strong content knowledge and specialized training have a positive impact on student performance (Darling-Hammond, 2000; Ferguson, 1991; Hanushek, Kain, & Rivkin, 1999; Haycock, 1998; Peske & Haycock, 2006; Sanders & Rivers, 1996; Wenglinksy, 2002; Whitehurst, 2002).

Ongoing support for building teachers' capacity to implement instructional practices designed to serve ELLs is as significant a priority as designing effective instructional approaches. As more ELLs participate in general education classrooms, teacher preparation programs and professional development agencies must provide experience and knowledge that will enable certified and novice teachers to select and use the most effective practices.

The National Literacy Panel (August & Shanahan, 2006) reported a review of a small number of studies on teacher beliefs and professional development in literacy instruction for teachers of language-minority students. Five studies focused on professional development activities, which included extensive meetings with teachers, opportunities for classroom practice, mentoring and coaching, and teacher learning communities (Calderon & Marsh, 1988, Haager & Windmueller, 2001; Hoffman, Roser, & Farest, 1988; Ruiz, Rueda, Figueroa, & Boothroyd, 1995; Saunders & Goldberg, 1996). One of the Panel's most relevant findings was that effective professional development requires significant time and effort both from those offering it and from teachers.

Moreover, Paneque and Barbetta's 2006 survey of teacher self-efficacy among 202 elementary special education teachers of ELLs with disabilities reflected no statistically significant differences in efficacy scores by levels of

teacher preparation, number of years of teaching experience, or students' socioeconomic status. However, they did find that teachers' proficiency in their students' first language accounted for a significant variance in predicting the level of teachers' perceived efficacy. Teachers perceived that they were more effective when they were able to communicate with the students and their parents.

In summary, high-quality teacher preparation and professional development programs on teaching ELLs—whether in mainstream or support classes—should address theoretical knowledge and pedagogical methods on second language acquisition. In doing so, they should focus on a variety of considerations, including, but not limited to:

- **Diversity within the ELL population.** ELLs may be fully bilingual or biliterate, dominant in their first language, or monolingual in English. Each student's degree of bilingualism and biliteracy must be considered when planning instruction and intervention;
- The use of **explicit instruction** and modeling of strategies before, during, and after reading;
- **Connecting reading opportunities to daily living activities**, such as sports, news, social interests;
- Increasing opportunities for **reading**, **writing**, and **speaking across content areas**;
- The effective use of **visuals and manipulatives**;
- Promoting ELLs' language use by encouraging English language fostering **peer pairing**;
- Providing **feedback**, **extension**, **scaffolding**, and **support** for language use and cognitive problem solving;
- The use of **research-based effective instructional strategies** regardless of language of instruction;
- Guiding students to **connect their native language to English**, where appropriate (i.e., when students have a well-developed native language); and
- Administering **classroom-based assessment tools** (RTI Model, Tier I) and interpreting the results to inform day-to-day instruction (Meltzer &

Hamann, 2006; Linan-Thompson & Vaughn, 2007; Gandara & Maxwell-Jolly, 2006).

Two national efforts to build capacity to teach English language learners effectively

To support the professional development of personnel working with limited English proficient children, NCLB's Title III—Language Instruction for Limited English Proficient and Immigrant Students—established a National Professional Development Project. This five-year project has awarded competitive grants to institutions of higher education and state educational agencies for proposals to improve classroom instruction and assist personnel in achieving standards for certification and licensure. It was designed to enhance the quality of teacher preparation programs to address the needs of ELLs in the mainstream classroom.

Another effort, Expediting Comprehension for English Language Learners (ExC-ELL), was developed in response to the national need for supporting secondary school teachers of ELLs. It studies the effects of a professional development model for middle and high school teachers of English, science, mathematics, and social studies who work with ELLs (Calderon, 2007). Because literacy skills in secondary grades are more embedded in content areas than they are in the primary grades, this project developed a framework that combines instructional and professional development components, strategies, and performance assessment tools. The model integrates subject matter content, language, reading, and writing skills through explicit instruction. Furthermore, it emphasizes the explicit teaching of the different writing genres and the depth and breadth of word meanings before, during, and after reading.

CONCLUSION

Good instruction and effective intervention begin with good assessment: this notion is crucial for meeting the needs of English language learners. The results of assessments of language ability and academic achievement inform district and school decisions about educational placements and services, including special support services for language or academic achievement. These decisions have far-reaching implications for students' academic outcomes and are critical when used to identify—and remediate—the difficulties encountered by ELLs.

While many ELLs may fall behind due to a lack of English proficiency, their placement rates in special education are higher than they should be, and research suggests that many ELLs are inappropriately placed in special education because they have not received appropriate instruction. The identification of ELLs for special education presents confounding factors that may distort the truth about their levels of proficiency in first and second languages as well as their academic skills. At-risk ELLs benefit from early, explicit, intensive intervention that reflects a close match between their source(s) of difficulty and the skills targeted for improvement. (See McCardle et al., 2005).

The Response to Intervention model addresses the importance of the assessment-instruction match. The premise behind RTI is that at-risk students should receive effective instruction with ongoing progress monitoring (usually curriculum-based or criterion-based measures) before being considered for special education placement. The model emphasizes a careful matching of students' difficulties and intensive, targeted classroom-level instruction and intervention (Fuchs, Fuchs, & Speece, 2002; Fuchs, Mock, Morgan, & Young, 2003). Consideration for special education placement should only occur when educators observe evidence of persistent difficulties in spite of targeted classroom-based interventions. Data showing a student's learning rate and performance levels must be collected and used to guide educational decisions.

Interventions that have most successfully advanced the reading skills of both at-risk ELLs and ELLs with an identified language or reading disability align very closely with interventions proven effective with monolingual English speakers who are struggling to read. Successful English readers develop

functional knowledge of the English alphabetic writing system and apply it as they begin to read words in print (Snow, Burns, & Griffin, 1998). These interventions may be comprehensive programs that focus on a number of skills shown to be crucial to reading (e.g., phonemic awareness, fluency, explicit phonics, connected text, vocabulary) or they may be intensive work focused on one particular skill. Matching the intervention to student needs and giving students ample time to participate in the interventions enhance the odds of success.

If we are to meet ELLs' needs effectively, teachers must be prepared to work with students who have a wide range of special needs. Laws and policies require that the general curriculum be accessible to all students and that accommodations are in place during instruction and assessment. Building teachers' capacity through ongoing support to implement instructional practices designed to serve ELLs is as significant a priority as designing effective instructional approaches. As more ELLs participate in general education classrooms, teacher education programs and professional development agencies must prepare novice and experienced teachers to select and use the most effective practices. Many ELLs may not get the absolutely critical instruction they need because their teachers do not understand how their needs differ from those of their peers (Zehler et al., 2003). Teachers have a responsibility to English language learners and English language learners with disabilities to come to the classroom with strong content knowledge *and* training in the issues relevant to instruction and assessment for these students.

REFERENCES

Assessment and Accountability Comprehensive Center. (2007). *Guidelines for ensuring the technical quality of assessments affecting English language learners and students with disabilities: Development and implementation of regulations.* San Francisco: Author.

Artiles, A. J., & Ortiz, A. (Eds.) (2002). *English language learners with special education needs.* Washington, DC: Center for Applied Linguistics.

Artiles, A. J., Rueda, R., Salazar, J. J., & Higareda, I. (2005). Within-group diversity in minority disproportionate representation: English language learners in urban school districts. *Exceptional Children, 71*(4), 283–300.

August, D., & Hakuta, K. (1997). *Improving schooling for language-minority children: A research agenda.* Washington, DC: National Academies Press.

August, D. L., & Shanahan, T. (2006). Introduction and methodology. In D. L. August & T. Shanahan (Eds.), *Developing literacy in a second language: Report of the National Literacy Panel.* Mahwah, NJ: Lawrence Erlbaum.

August, D. L., & Siegel, L. S. (2006). Literacy instruction for language-minority children in special education settings. In D. L. August & T. Shanahan (Eds.), *Developing literacy in a second language: Report of the National Literacy Panel.* Mahwah, NJ: Lawrence Erlbaum.

Bailey, A. L., Butler, F. A., Stevens, R., & Lord, C. (2007). Further specifying the language demands of school. In A. L. Bailey (Ed.), *The language demands of school: Putting academic English to the test.* New Haven, CT: Yale University Press.

Barrera, M., Liu, K., Thurlow, M., Shyyan, V., Yan, M., & Chamberlain, S. (2006). *Math strategy instruction for students with disabilities who are learning English.* (ELLs with Disabilities Report 16). Minneapolis: University of Minnesota, National Center on Educational Outcomes.

Bedore, L. M., & Peña, E. D. (2008). Assessment of bilingual children for identification of language impairment: Current findings and implications for practice. *The International Journal of Bilingual Education and Bilingualism, 11*(1), 1–29.

Bos, C. S., Allen, A. A., & Scanlon, D. J. (1989).Vocabulary instruction and reading comprehension with bilingual learning disabled students. *National Reading Conference Yearbook, 38*, 173–179.

Calderon, M., & Marsh, D. (1988) Applying research on effective bilingual instruction in a multi-district inservice teacher training program. NABE: *The Journal for the National Association for Bilingual Education, 12*(2), 133–152.

Calderon, M. B. (2007). *Teaching reading to English language learners, Grades 6-12: A framework for improving achievement in the content areas.* Thousand Oaks, CA: Corwin Press.

Calhoon, M. B., Al Otaiba, S., Cihak, D., King, A., & Avalos, A. (2007). Effects of a peer-mediated program on reading skill acquisition for two-way bilingual first-grade classrooms. *Learning Disability Quarterly, 30*, 169–184.

Capps, R., Fix, M., Murray, J., Ost, J., Passel, J., & Herwantoro, S. (2005). *The new demography of America's schools: Immigration and the No Child Left Behind Act.* Washington, DC: The Urban Institute.

Chiappe, P., & Siegel, L. (1999). Phonological awareness and reading acquisition in English- and Punjabi-speaking Canadian children. *Journal of Educational Psychology, 91*(1), 20-28.

Chiappe, P., Siegel, L., & Gottardo, A. (2002). Reading-related skills of kindergartners from diverse linguistic backgrounds. *Applied Linguistics, 23*(1), 95–116.

Chiappe, P., Siegel, L., & Wade-Woolley, L. (2002). Linguistic diversity and the development of reading skills. *Scientific Studies of Reading, 6*(4), 369–400.

Cortiella, C. (2006). *NCLB and IDEA: What parents of students with disabilities need to know and do.* Minneapolis: University of Minnesota, National Center on Educational Outcomes.

Conway, D. F., Christensen, J. E., Russell, J. F., & Brown, J. D. (2000). Principals' perceptions of pre-referral student assistance teams. *Educational Research Service Spectrum, 18*(1), 14–19.

Da Fontoura, H. A., & Siegel, L. S. (1995). Reading, syntactic, and working memory skills of bilingual Portuguese-English Canadian children. *Reading and Writing, 7*(1), 139–153.

Darling-Hammond, L. (2000). Teacher quality and student achievement: A review of state policy evidence. *Education Policy Analysis, 8*(1).

De George, G. P. (1988). Assessment and placement of language minority students: Procedures for mainstreaming. *Equity and Excellence, 23*(4), 44-56.

De Jong, E. J. (2004) After exit: Academic achievement patterns of former English language learners. *Educational Policy Analysis Archives, 12*(50).

De la Colina, M. G, Parker, R. I, Hasbrouck, J. E., & Lara-Alecio, R. (2001). Intensive intervention in reading fluency for at-risk beginning Spanish readers. *Bilingual Research Journal, 25*(4).

Delquadri, J., Greenwood C., Whorton, D., Carta, J., & Hall, R. (1986). Classwide peer tutoring. *Exceptional Children, 52*(6), 535–542.

Denton, C. A., Anthony, J. L., Parker, R., & Hasbrouck, J. E. (2004). Effects of two tutoring programs on the English reading development of Spanish-English bilingual students. *The Elementary School Journal, 104*(4), 289–305.

Echevarria, J. (1996). The effects of instructional conversations on the language and concept development of Latino students with learning disabilities. *Bilingual Research Journal, 20*(2), 339-363.

Escamilla, K. (1994). Descubriendo la lectura: An early intervention literacy program in Spanish. *Literacy, Teaching, and Learning, 1*(1), 57–69.

Ferguson, R. F. (1991). Racial patterns in how school and teacher quality affect achievement and earnings. *Challenge, 2*(1), 1-35.

Francis, D. (2003, October). *Issues in English language learners measurement and assessment.* Paper presented at the National Symposium on Learning Disabilities in English Language Learners, Washington, DC.

Francis, D. J., Rivera, M., Lesaux, N., Kieffer, M., & Rivera, H. (2006). *Practical guidelines for the education of English Language Learners: Research-based recommendations for instruction and academic interventions.* Portsmouth, NH: RMC Research Corporation, Center on Instruction. Available at http://www.centeroninstruction.org/files/ELL1-Interventions.pdf

Fuchs, A. H. (1997). The right text at the right time. *PsycCRITIQUES, 42*(6).

Fuchs, D., Fuchs, L. S., Al Otaiba, S., Thompson, A., Yen, L., McMaster, K., et al. (2001) K-PALS. *Teaching Exceptional Children, 33*(4), 76.

Fuchs, D., Mock, D., Morgan, P. L., & Young, C. L. (2003). Responsiveness-to-intervention: Definitions, evidence, and implications for the learning disabilities construct. *Learning Disabilities Research Practice, 18*(3), 157–171.

Fuchs, L. S., Fuchs, D., & Speece, D. L. (2002). Treatment validity as a unifying construct for identifying learning disabilities. *Learning Disability Quarterly, 25*(1), 33-45.

Gandara, P., & Maxwell-Jolly, J. (2006). Critical issues in developing the teacher corps for English learners. In K. Téllez & H. C. Waxman (Eds.), *Preparing quality educators for English language learners: Research, policies, and practices,* 99–120.

Gandara, P., Rumberger, R., Maxwell-Jolly, J., & Callahan, R. (2003). English learners in California schools: Unequal resources, unequal outcomes. *Education Policy Analysis Archives, 11*(36).

Genesee, F., Paradis, J., & Crago, M. (2004). *Dual language development and disorders: A handbook on bilingualism and second language learning.* Baltimore, MD: Paul Brookes.

Gerber, M., Jimenez, T., Leafstedt, J. M., Villaruz, J., Richards, C., & English, J. (2004). English reading effects of small-group intensive intervention in Spanish for K–1 English learners. *Learning Disabilities Research Practice, 19*(4), 239–251.

Geva, E., Yaghoub-Zadeh, Z., & Schuster, B. (2000). Part IV: Reading and foreign language learning: Understanding individual differences in word recognition skills of ESL children. *Annals of Dyslexia, 50,* 121–154.

Goldstein, B. A. (2006). Clinical implications of research on language development and disorders in bilingual children. *Topics in Language Disorders, 26*(4), 305–321.

Gottardo, A. (2002). The relationship between language and reading skills in bilingual Spanish-English speakers. *Topics in Language Disorders, 22*(5), 46-70.

Greenwood, C., Delquadri, J., & Hall, R. (1989). Longitudinal effects of classwide peer tutoring. *Journal of Educational Psychology, 81*(3), 371–383.

Gunn, B., Biglan, A., Smolkowski, K., & Ary, D. (2000). The efficacy of supplemental instruction in decoding skills for Hispanic and non-Hispanic students in early elementary school. *The Journal of Special Education, 34*(2), 90–103.

Gunn, B., Smolkowski, K., Biglan, A., & Black, C. (2002). Supplemental instruction in decoding skills for Hispanic and non-Hispanic students in early elementary school: A follow-up. *The Journal of Special Education, 36*(2), 69–79.

Haager, D., & Windmueller, M. P. (2001). Early reading intervention for English language learners at-risk for learning disabilities: Student and teacher outcomes in an urban school. *Learning Disability Quarterly, 24,* 235–250.

Hanushek, E. A., Kain, J. F., & Rivkin, S. G. (1999). Do higher salaries buy better teachers? Annual Meeting of the American Economic Association.

Haycock, K. (1998). Good teaching matters…a lot. *OAH Magazine History, 13*(1), 61-63.

Hernandez, J. S. (1991). Assistance performance in reading comprehension strategies in non-English proficient students. *The Journal of Educational Issues of Language Minority Students, 8,* 91–112.

Hoffman, J. V., Roser, N. L., & Farest, C. (1988). Literature-sharing strategies in classrooms serving students from economically disadvantaged and language different home environments. *National Reading Conference Yearbook, 37,* 331–337.

Jimenez, R. T. (1997). The strategic reading abilities and potential of five low-literacy Latina/o readers in middle school. *Reading Research Quarterly, 32*(3), 224–243.

Johnson, C. D., Lessem, A., Bergquist, C., Carmichael, D., & Whitten, G. (2001). *Disproportionate representations of minority children in special education: Summary report.* College Station: Texas A & M University, Public Policy Research Institute.

Kamps, D., Abbott, M., Greenwood, C., Arreaga-Mayer, C., Wills, H., Longstaff, J., et al. (2007). Use of evidence-based, small-group reading instruction for English language learners in elementary grades: Secondary-tier intervention. Learning *Disability Quarterly, 30,* 153–168.

Klingner, J. K., Artiles, A. J., & Barletta, L. M. (2006). English language learners who struggle with reading: Language acquisition or LD? *Journal of Learning Disabilities, 39*(2).

Klingner, J. K., & Vaughn, S. (1996). Reciprocal teaching of reading comprehension strategies for students with learning disabilities who use English as a second language. *The Elementary School Journal, 96*(3), 275–293.

Koda, K., & Zehler, A. M. (2008). *Learning to read across languages: Cross-linguistic relationships in first- and second-language literacy development.* New York: Routledge.

Leafstedt, J. M., Richards, C. R., & Gerber, M. M. (2004). Effectiveness of explicit phonological-awareness instruction for at-risk English learners. *Learning Disabilities Research Practice, 19*(4), 252–261.

Lesaux, N. K., & Siegel, L. S. (2003). The development of reading in children who speak English as a second language. *Developmental Psychology, 39*(6), 1005–1019.

Limbos, M. M., & Geva, E. (2001). Accuracy of teacher assessments of second-language students at risk for reading disability. *Journal of Learning Disabilities, 34*(2).

Linan-Thompson, S., Cirino, P. T., & Vaughn, S. (2007). Determining English language learners' response to interventions: Questions and some answers. *Learning Disability Quarterly, 30,* 185–195.

Linan-Thompson, S., & Hickman-Davis, P. (2002). Supplemental reading instruction for students at risk for reading disabilities: Improve reading 30 minutes at a time. *Learning Disabilities Research & Practice, 17*(4), 242–251.

Linan-Thompson, S., & Vaughn, S. (2007). *Research-based methods of reading instruction for English language learners, grades k–4.* Alexandria, VA: Association for Supervision and Curriculum Development.

Linan-Thompson, S., Vaughn, S., Hickman-Davis, P., & Kouzekanani, K. (2003). Effectiveness of supplemental reading instruction for second-grade English language learners with reading difficulties. *The Elementary School Journal, 103*(3), 221–238.

Linan-Thompson, S., Vaughn, S., Prater, K., & Cirino, P. T. (2006). The response to intervention of English language learners at risk for reading problems. *Journal of Learning Disabilities, 39*(5), 390–398.

Lindsey, K. A., Manis, F. R., & Bailey, C. E. (2003). Prediction of first-grade reading in Spanish-speaking English-language learners. *Journal of Educational Psychology, 95*(3).

Mahoney, K. S., & MacSwan, J. (2005). Reexamining identification and reclassification of English language learners: A critical discussion of select state practices. *Bilingual Research Journal, 29*(1), 31–42.

Marchman, V., Martinez-Sussman, C., & Price, P. (2000). *Individual differences in early learning contexts for Spanish and English-speaking children.* Paper presented at Head Start 5th National Research Conference, Washington, DC.

Mathes, P. G., Pollard-Durodola, S. D., Cardenas-Hagan, E., Linan-Thompson, S., & Vaughn, S. (2007). Teaching struggling readers who are native Spanish speakers: What do we know? *Language, Speech, and Hearing Services in Schools, 38,* 260–271.

McCardle, P., Mele-McCarthy, J., Cutting, L., Leos, K., & D'Emilio, T. (2005). Learning disabilities in English language learners—identifying the issues. *Learning Disabilities Research and Practice, 20*(1), 1–5.

McMaster, K. L., Kung, S., Han, I., & Cao, M. (2008). Peer-assisted learning strategies: A "Tier 1" approach to promoting English learners' Response to Intervention. *Exceptional Children, 71*(2), 194-214.

Meltzer, J., & Hamann, E. T. (2006). Literacy for English learners and regular students, too. *The Education Digest, 71*(7), 32–40.

Minnema, J., Thurlow, M., Anderson, M., & Stone, K. (2005). *English language learners with disabilities and large-scale assessments: What the literature can tell us.* Minneapolis, MN: National Center on Education Outcomes.

Nag-Rulmani, S., Reddy, V., & Buckley, S. (2003). Targeting phonological representations can help in the early stages of reading in a non-dominant language. *Journal of Research in Reading, 26*(1), 49–68.

Nagy, W. E., & Anderson, R. C. (1984). How many words are there in printed school English? *Reading Research Quarterly, 19*(3), 304-330.

Nagy, W. C., & Scott, J. (2000). Vocabulary processes. In R. Barr, M. L. Kamil, P, Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research: Vol. 3* (pp. 269-284). New York: Longman.

National Center for Education Statistics (NCES). (2002). *National assessment of educational progress/Nation's report card.* Washington, DC: Institute of Education Sciences, U.S. Department of Education. Retrieved 1/25/2008 from http://nces.ed.gov/nationsreportcard/nde/viewresults.asp

National Center for Education Statistics (NCES) (2007). *National assessment of educational progress/Nation's report card.* Washington, DC: Institute of Education Sciences, U.S. Department of Education. Retrieved 1/25/2008 from http://nces.ed.gov/nationsreportcard/nde/viewresults.asp

National Institute of Child Health and Human Development [NICHD]. (2000). *Report of the National Reading Panel. Teaching children to read: an evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups* (NIH Publication No. 00-4754). Washington, DC: Author.

Padron, Y. N. (1986). Utilizing cognitive reading strategies to improve English reading comprehension of Spanish-speaking bilingual students. *Dissertation Abstracts International, 46*(10-A).

Padron, Y. N. (1992). The effect of strategy instruction on bilingual students' cognitive strategy use in reading. *Bilingual Research Journal, 16*(3-4), 35-51.

Palincsar, A., & Brown, A. (1984). Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition and Instruction, 1*(2), 117–175.

Paneque, O., & Barbetta, P. (2006). A study of teacher efficacy of special education teachers of English language learners with disabilities. *Bilingual Research Journal, 30*(1), 171–193.

Pearson, B. Z., Fernandez, S. C., & Oller, D. K. (1993). Lexical development in bilingual infants and toddlers: Comparison to monolingual norms. *Language Learning, 43,* 93–120.

Perez, S. A. (1981). Effective approaches for improving the reading comprehension of problem readers. *Reading Horizons, 22*(1), 59-65.

Perozzi, J. (1985). A pilot study of language facilitation for bilingual, language-handicapped children: Theoretical and intervention implications. (1985). *The Journal of Speech and Hearing Disorders, 50*(4), 403–406.

Peske, H., & Haycock, K. (2006). Teaching inequality: How poor and minority students are shortchanged on teacher quality: A report and recommendations by the Education Trust. *Education Trust,* 20.

Pollard-Durodola, S. D., Mathes, P. G., Vaughn, S., Cardenas-Hagan, E., & Linan-Thompson, S. (2006). The role of oracy in developing comprehension in Spanish-speaking English language learners. *Topics in Language Disorders, 26*(4), 365–384.

Quiroga, T., Lemos-Britton, Z., Mostafapour, E., Abbott, R. D., & Berninger, V. W. (2001). Phonological awareness and beginning reading in Spanish-speaking ESL first graders: Research into practice. *Journal of School Psychology, 40*(1), 85–109.

Ragan, A., & Lesaux, N. (2006). Federal, state, and district level English language learner program entry and exit requirements: Effects on the education of language minority learners. *Education Policy Analysis Archives, 14*(20), 1–29.

Rivera, C. (1994). Is it real for all kids? *Harvard Educational Review, 64*(1), 55–75.

Rohena, E. I., Jitendra, A. K., & Browder, D. M. (2002). Comparison of the effects of Spanish and English constant time delay instruction on sight word reading by Hispanic learners with mental retardation. *Journal of Special Education. 36*(3), 169-185.

Rousseau, M. K., & Tam, B. (1991). The efficacy of previewing and discussion of key words on the oral reading proficiency of bilingual learners with speech and language impairments. *Education & Treatment of Children, 14*(3), 199–209.

Rousseau, M., Tam, B., & Ramnarain, R. (1993). Increasing reading proficiency of language-minority students with speech and language impairment. *Education & Treatment of Children, 16*(3).

Ruiz, N., Rueda, R., Figueroa, R., & Boothroyd, M. (1995). Bilingual special education teachers' shifting paradigms: complex responses to educational reform. *Journal of Learning Disabilities, 28*(10), 622–635.

Sanders, W., & Rivers, J. (1996). *Cumulative and residual effects of teachers on future student academic achievement.* (Research progress report). Bloomington, IN: Monroe County Community School Corporation. Retrieved from http://www.mccsc.edu/~curriculum/cumulative%20and%20residual%20effects%20of%20teachers.pdf

Saenz, L. M., Fuchs, L. S., & Fuchs, D. (2005). Peer-assisted learning strategies for English language learners with learning disabilities. *Exceptional Children, 71*(3), 231–247.

Saunders, W. M. & Goldenberg, C. (1996). Four primary teachers work to define constructivism and teacher-directed learning: Implications for teacher assessment. *Elementary School Journal, 97*(2), 139-161.

Saunders, W. M., & Goldenberg, C. (1999). Effects of instructional conversations and literature logs on limited- and fluent-English proficient students' story comprehension and thematic understanding. *Elementary School Journal, 99*(4), 277–301.

Scarcella, R. (2003). *Academic English: A conceptual framework.* Los Angeles: Language Minority Research Institute.

Shanahan, T., & Beck, I. L. (2006). Effective literacy teaching for English-language learners. In D. L. August & T. Shanahan (Eds.), *Developing literacy in a second language: Report of the National Literacy Panel.* Mahwah, NJ: Lawrence Erlbaum.

Simmons D., Fuchs, D., & Fuchs, L., Hodge, J. P., & Mathes, P. G. (1994). Importance of instructional complexity and role of reciprocity to classwide peer tutoring. *Learning Disabilities Research and Practice, 9,* 203-212.

Simmons D., Fuchs, D., & Fuchs, L., Mathes, P. G., & Hodge, J. P. (1995). Effects of explicit teaching and peer tutoring on the reading achievement of learning-disable and low-performing student in regular classrooms. *The Elementary School Journal, 95*(5), 387-408.

Simmons, D., Fuchs, L., & Fuchs, D. (1995). Effects of explicit teaching and peer tutoring on the reading achievement of learning-disabled and low-performing students in regular classroom. *The Elementary School Journal, 95*(5), 387–408.

Snow, C. E., Burns, M.S., & Griffin, P. (Eds.). (1998). *Preventing reading difficulties in young children.* Washington, DC: National Academies Press.

Stahl, S. A. (1999). *Vocabulary development.* Cambridge, MA. Brookline Books.

Stahl, S. A., & Nagy, W. E. (2006). *Teaching word meanings.* Mahwah, NJ: Lawrence Erlbaum.

Tam, K. Y., Heward, W. L., & Heng, M. A. (2006). A reading instruction intervention program for English-language learners who are struggling readers. *The Journal of Special Education, 40*(2), 79–93.

U.S. Department of Education, Institute of Education Sciences. (nd). *Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K).* Washington, DC: Author.

U.S. Department of Education. (2003). *National symposium on learning disabilities in English language learners. Symposium summary.* Washington, DC: Author.

Vaughn, S., Cirino, P. T., Linan-Thompson, S., Mathes, P. G., Carlson, C. D., Cardenas-Hagan, E., et al. (2006). Effectiveness of a Spanish intervention and an English intervention for English-language learners at risk for reading problems. *American Educational Research Journal, 43*(3), 449–487.

Vaughn, S., Linan-Thompson, S., & Hickman, P. (2003). Response to instruction as a means of identifying students with reading/learning disabilities. *Exceptional Children, 69,* 391–409.

Vaughn, S., Linan-Thompson, S., Mathes, P. G., Cirino, P., Carlson, C. D., Hagan, E.C., et al. (2006). Effectiveness of a Spanish intervention and an English intervention for first-grade English language learners at risk for reading difficulties. *Journal of Learning Disabilities, 39,* 56-73.

Vaughn, S., Mathes, P. G., Linan-Thompson, S., & Francis, D. J. (2005). Teaching English language learners at risk for reading disabilities to read: Putting research into practice. *Learning Disabilities Research and Practice, 20*(1), 58–67.

Vaughn, S., Mathes, P., Linan-Thompson, S., Cirino, P., Carlson, C., Pollard-Durodola, S., et al. (2006). Effectiveness of an English intevention for first-grade English language learners at risk for reading problems. *The Elementary School Journal, 107*(2), 153-180.

Wenglinsky, H. (2002, February 13). How schools matter: The link between teacher classroom practices and student academic performance. *Education Policy Analysis Archives, 10*(12).

What Works Clearinghouse. (2007). *Topic report on English language learners.* Washington, DC: Institute of Education Sciences, U.S. Department of Education. Retrieved from http://ies.ed.gov/ncee/wwc/pdf/ELL_TR_07_30_07.pdf

Whitehurst, G. (2002). Improving teacher quality. *Spectrum: Journal of State Government, 75*(3), 12.

Wilkinson, C., Ortiz, A., Robertson, P., & Kushner, M. (2006). English language learners with reading-related LD: Linking data from multiple sources to make eligibility determinations. *Journal of Learning Disabilities, 39*(2), 129–142.

Wright, W. E. (2005). English language learners left behind in Arizona: The nullification of accommodations in the intersection of federal and state policies. *Bilingual Research Journal, 29*(1), 1-29.

Zehler, A. M., Fleischman, H. L., Hopstock, P. J., Stephenson, T. G., Pendzick, M. L., & Sapru, S. (2003). *Descriptive study of services to LEP students and LEP students with disabilities. Policy report: Summary of findings related to LEP and SpEd-LEP students.* Submitted to U.S. Department of Education, Office of English Language Acquisition. Arlington VA: Development Associates, Inc.

APPENDIX

Table 1:
Studies on interventions for children identified with disabilities

Table 2:
Interventions for students identified as at risk

Table 1: Studies on interventions for children identified with disabilities

Author	Participants, grade level	Study methodology	Intervention model	English measures	Native language measures	Findings
Saenz, Fuchs, & Fuchs (2005)	132 ELLs, grades 3–6	Random assignment, matched control group, experimental design	*Peer Assisted Learning Strategies (PALS)*	*Comprehensive Reading Assessment Battery (CRAB)*		Significant impact for ELLs with LD in reading comprehension and fluency
Calhoon, Al Otaiba, Cihak, King, & Avalos (2007)	76 students, grade 1	Random assignment, matched control group, experimental design	*Peer Assisted Learning Strategies (PALS)*	*Dynamic Indicators of Early Literacy Skills (DIBELS)*		Intervention group had higher outcomes in nonsense word fluency, oral reading fluency (ORF), and letter-naming fluency
Haager & Windmueller (2001)	335 students, grades 1–2	Non-experimental, pre-post test	Teacher professional development in early reading development	*DIBELS*		Upward growth on all measures; LD students and ELLs at risk reached grade 1 benchmarks in nonsense word fluency but not in oral reading fluency
Jimenez (1997)	5 low-literacy bilingual students, grade 7	Qualitative, formative research design	Cognitive strategy lessons and key reading strategies	Language experience texts	Think-aloud protocol	Increase in meta-cognitive comments and strategy use over time
Klingner & Vaughn (1996)	26 ELLs with LD, grades 7–8	Random assignment to one of two intervention groups, experimental design	Reciprocal teaching with either cooperative grouping or cross-age tutoring	Pre-intervention: *Woodcock Johnson Tests of Achievement; Language Assessment Scales (LAS)*; Post-Intervention: *Gates-McGinitie Reading Comprehension Test* and passage comprehension tests	Pre- Intervention: *Woodcock Language Proficiency Battery—Revised; Language Assessment Scales (LAS)*	Significant growth in English reading comprehension for both groups. Highest gains for students with initially adequate or high decoding but low comprehension. Students low in oral English and Spanish did not have sufficient English proficiency to benefit. No Spanish outcomes measured
Rousseau & Tam (1991)	8 ELLs, grades 2–5	Single-subject alternative treatment, experimental design	Focus on vocabulary with read-aloud or silent reading	Oral reading passage		Read-aloud and discussion improved oral reading

Table 2: Interventions for students identified as at risk

Author	Participants, grade level	Study methodology	Intervention model	English measures	Native language measures	Findings
De la Colina, et al. (2001)	74 ELLs, grades 1–2	Single case, multiple baseline design	*Read Naturally* in Spanish, focused on fluency		Seven comprehension probes with four questions; fluency passages	Spanish oral reading fluency improved more than reading comprehension; higher engagement in program resulted in better outcomes
Denton, Anthony, Parker, & Hasbrouck (2004)	93 ELLs, grades 2–5	Random assignment, matched control group, experimental design	*Read Well* (explicit instruction in decoding) and *Read Naturally* (repeated text reading)	*Woodcock Reading Mastery Test:* word ID, attack, passage comprehension		*Read Well*: word identification, word attack and passage comprehension scores were higher for intervention group; *Read Naturally*: no significant differences
Gunn et al. (2000)	256 students (158 Hispanic, 98 non-Hispanic, 19 ELLs), grades K–3	Random assignment, matched control group, experimental design	Phonological awareness and decoding	Pre-intervention: *DIBELS* ORF; Post-intervention: *DIBELS* ORF*; Woodcock Johnson Tests of Achievement*		Positive impact on letter-word identification, word attack, reading vocabulary, and comprehension; ELLs performed similarly to other Hispanic students
Kamps, et al. (2007)	170 ELLs and 148 English-only students, grades 1–2	Quasi-experimental design with experimental control group	*Reading Mastery, Read Well, Early Intervention in Reading:* integrated curricula with explicit instruction in phonological/ phonemic awareness (PA); *Read Naturally* for fluency (grade 2 only)	DIBELS, *Woodcock Reading Mastery Test*		ELL students in the intervention performed better on reading outcomes; students who received explicit instruction in phonemic awareness obtained higher fluency results than the balanced literacy control group.
Gerber et al. (2004)	43 ELLs, grades k–1	Non-matched control group, quasi-experimental design	Core Intervention Model: explicit instruction, correction staircase to learn and practice reading skills Intervention in Spanish in kindergarten, then language of instruction in grade 1 (English for all but 14 students)	Onset and rime detection, phoneme segmentation; combined both language measures of onset and rime for early PA and both language measures of segmentation for late PA; *Woodcock Johnson Tests of Achievement:* word attack and letter-word ID	Onset and rime detection, phoneme segmentation	Both groups gained in Spanish and English over time, but intervention students caught up to non-intervention peers by end of first grade despite differences in kindergarten.

(continued)

Table 2: Interventions for students identified as at risk (continued)

Author	Participants, grade level	Study methodology	Intervention model	English measures	Native language measures	Findings
Leafstedt, Richards, & Gerber (2004)	64 ELLs, kindergarten	Matched control group, quasi-experimental design	Intensive phonological awareness instruction, developmental model	Early PA: onset and rime identification Late PA: segmentation; Woodcock Johnson Word ID, word attack	Early PA: onset and rime identification Late PA: segmentation	Students across three ability groups (low, middle, high) improved in early and late phonological awareness and word reading, in both Spanish and English, but at different rates. The high ability group demonstrated the most dramatic gains.
Linan-Thompson, Cirino, & Vaughn (2007)	81 ELLs, grades 1–2	Random assignment, matched control group, experimental design	*Proactive Reading:* Comprehensive, intensive reading skills intervention (in Spanish [*Proactiva*] or English, depending on language of instruction): reading fluency, phonological awareness, comprehension and vocabulary development	*Woodcock Language Proficiency Battery-Revised*: word attack, passage comprehension, oral language composite; *DIBELS*: ORF; 5-word reading list	*Woodcock Language Proficiency Battery-Revised*: word attack, passage comprehension, oral language composite; *DIBELS*: ORF; 5-word reading list	At the end of grade 1, intervention group outperformed control group on phonological awareness, fluency, comprehension, and spelling
Linan-Thompson et al. (2003)	26 ELLs, grade 2	Pre-post test design	*Proactive Reading*: Comprehensive, intensive reading skills intervention (in Spanish or English, depending on language of instruction): reading fluency, phonological awareness, comprehension and vocabulary development	*Texas Primary Reading Inventory (TPRI); Woodcock Reading Mastery-Revised*: word attack and passage comprehension; ORF; *DIBELS*: segmentation and fluency; pretest with *Woodcock Munoz Language Survey (WMLS)* picture vocabulary and verbal analogies	Only assessed prior to intervention with *WMLS*: picture vocabulary and verbal analogies	Only 3 students did not respond to intervention by the end of grade 1; a larger percentage of intervention students met criteria than students in control group

(continued)

Table 2: Interventions for students identified as at risk (continued)

Author	Participants, grade level	Study methodology	Intervention model	English measures	Native language measures	Findings
Mathes et al. (2007)	English studies: Group 1: 41 ELLs, grades 1–2 Group 2: 91 ELLs, grades 1–2 Spanish studies: Group 1: 64 ELLs, grades 1–2 Group 2: 94 ELLs, grades 1 -2	Random assignment, matched control group (reporting results of 4 intervention studies), experimental design	*Proactive Reading* (in Spanish or English, depending on language of instruction): orthophonemic knowledge, word recognition, fluency, and comprehension	*Comprehensive Test of Phonological Processing (TOPP)*; Woodcock Language Proficiency Battery—Revised; DIBELS: Letter naming, letter-sound identification	*Test of Phonological Processing in Spanish (TOPPS)*; Woodcock Language Proficiency Battery—Revised; DIBELS in Spanish: Letter naming, letter-sound identification	English groups: 1) significant differences for intervention group in phonological awareness, listening comprehension, word attack, word identification, and passage comprehension; 2) significant differences for intervention group in phonological awareness, graphophonemic identification, word attack, and word reading; 3) transfer of English reading knowledge to Spanish reading Spanish groups: 1) significant differences for intervention group in letter-sound identification, phonological awareness, word attack, passage comprehension, and fluency; 2) significant differences for intervention group in letter-sound identification, phonological awareness, and fluency maintained differences at end of grade 2; 3) little transfer to English

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Table 2: Interventions for students identified as at risk (continued)

Author	Participants, grade level	Study methodology	Intervention model	English measures	Native language measures	Findings
Pollard-Durodola et al. (2006)	English studies: Group 1: 41 ELLs, grades 1–2; Group 2: 91 ELLs, grades 1 -2 Spanish studies: Group 1: 64 ELLs, grades 1–2 ; Group 2: 94 ELLs, grades 1–2	Experimental design with random assignment and matched control group	*Proactive Reading* (in Spanish or English, depending on language of instruction): orthophonemic knowledge, word recognition, fluency, and comprehension	Screening: *Woodcock Language Proficiency Battery—Revised:* letter word identification; 5-word reading list Pre-post intervention: CTOPP (phonological processing); DIBELS: ORF, letter naming; letter-sound identification; *Woodcock Language Proficiency Battery—Revised:* passage and listening comprehension	Screening: *Woodcock Language Proficiency Battery—Revised:* letter word identification; 5-word reading list Pre-post intervention: TOPPS (phonological processing); *Indicadores Dinamicos del Exito en la Lectura* (reading fluency); letter naming; letter sound identification; *Woodcock Language Proficiency Battery—Revised:* passage and listening comprehension	Interventions were successful at building students' literacy, but an even more intensive curriculum may be necessary to build oral language skills
Vaughn, Linan-Thompson, et al. (2006)	64 ELLs, grade 1	Random assignment and matched control group, experimental design	Alphabetic knowledge and skills, connected text practice, comprehension, oral skills, and vocabulary development; Spanish language of instruction	Proficiency Battery letter word identification; 5-word reading list Pre-post intervention: *CTOPP*; DIBELS (reading fluency); letter naming; letter sound identification; *Woodcock Language Proficiency Battery—Revised:* passage and listening comprehension	Proficiency Battery letter word identification; 5-word reading list Pre-post intervention: *TOPPS*; *Indicadores Dinamicos del Exito en la Lectura* (reading fluency); letter naming; letter-sound identification; *Woodcock Language Proficiency Battery—Revised:* passage and listening comprehension	Significant differences for intervention group in letter-sound identification, phonological awareness, word attack, passage comprehension, and fluency

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Table 2: Interventions for students identified as at risk (continued)

Author	Participants, grade level	Study methodology	Intervention model	English measures	Native language measures	Findings
Vaughn, Cirino, et al. (2006)	91 ELLs in English study, 80 ELLs in Spanish study, grade 1	Random assignment and matched control group, experimental design	*Proactive Reading*: comprehensive, integrated intervention curriculum based on explicit instruction and modified to include ELL support lessons	*Woodcock Language Proficiency Battery*: letter-word identification; -5-word reading list Pre-post intervention: *CTOPP*: phonological processing; *DIBELS*: reading fluency; letter naming; letter-sound identification; *Woodcock Language Proficiency Battery—Revised:* passage and listening comprehension	*Woodcock Language Proficiency Battery*: letter word identification; 5-word reading list Pre-post intervention: *TOPPS*: phonological processing; Indicadores Dinamicos del Exito en la Lectura: reading fluency, letter naming; letter- sound identification; *Woodcock Language Proficiency Battery—Revised:* passage and listening comprehension	English: significant differences for intervention group in phonological awareness, graphophonemic identification, word attack, and word reading Spanish: significant differences for intervention group in letter-sound identification, phonological awareness, and fluency
Vaughn et al. (2005)	English: group 1: 41 ELLs, grades 1–2; groups 2: 91 ELLs, grades 1–2 Spanish: groups 1: 64 ELLs, grades 1–2; group 2: 94 ELLs, grades 1–2	Random assignment and matched control group, experimental design	*Proactive Reading*: comprehensive, integrated intervention curriculum based on explicit instruction and modified to include ELL support lessons	*Woodcock Language Proficiency Battery—Revised:* letter word identification; 5-word reading list Pre-post intervention: *CTOPP* (phonological processing); *DIBELS* (reading fluency); letter naming; letter-sound identification; *Woodcock Language Proficiency Battery—Revised:* passage and listening comprehension	*Woodcock Language Proficiency Battery—Revised:* letter word identification; 5-word reading list Pre-post intervention: *TOPPS* (phonological processing); *Indicadores Dinamicos del Exito en la Lectura*: reading fluency; letter naming; letter- sound identification; *Woodcock Language Proficiency Battery—Revised:* passage and listening comprehension	Significant differences for intervention group

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Table 2: Interventions for students identified as at risk (continued)

Author	Participants, grade level	Study methodology	Intervention model	English measures	Native language measures	Findings
Vaughn, Mathes, et al. (2006)	41 ELLs, grade 1	Random assignment and matched control group, experimental design	Alphabetic knowledge and skills, corrected text practice, comprehension, oral skills, and vocabulary in English	*Woodcock Language Proficiency Battery—Revised:* letter word identification; 5-word reading list Pre-post intervention: *CTOPP*; *DIBELS*: reading fluency; letter naming; letter- sound identification; *Woodcock Language Proficiency Battery—Revised:* passage and listening comprehension	*Woodcock Language Proficiency Battery—Revised:* letter word identification; 5-word reading list Pre-post intervention: *TOPPS*; *Indicadores Dinamicos del Exito en la Lectura*: reading fluency; letter naming; letter-sound identification; *Woodcock Language Proficiency Battery—Revised:* passage and listening comprehension	Significant differences for intervention group in phonological awareness, listening comprehension, word attack, word identification, and passage comprehension

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