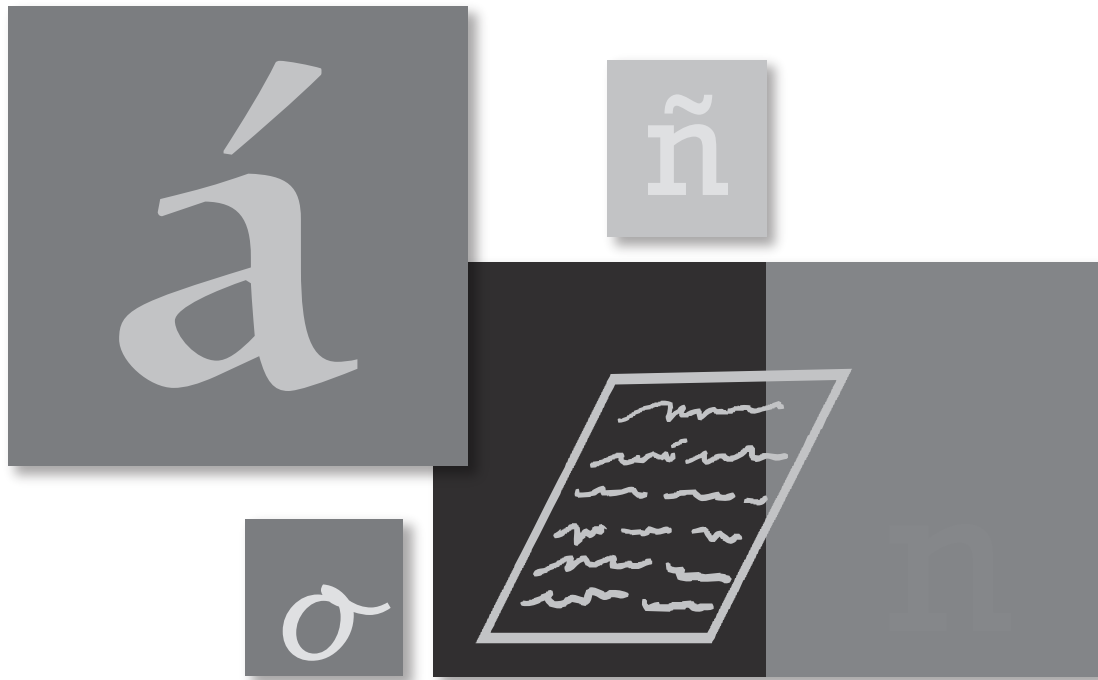


WM  
Woodcock-Muñoz™  
Language Survey–Revised  
Ⓝ Normative Update

**Interpretive Supplement:  
Instructional Interventions for  
English Language Learners Related to the  
*Woodcock-Muñoz Language Survey–Revised  
Normative Update***



*Fredrick A. Schrank*

*Criselda G. Alvarado*

*Barbara J. Wendling*



**RIVERSIDE PUBLISHING**  
a subsidiary of Houghton Mifflin Harcourt

Copyright © 2010 by The Riverside Publishing Company. All rights reserved. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording or by any information storage or retrieval system without the prior written permission of The Riverside Publishing Company unless such copying is expressly permitted by federal copyright law. Address inquiries to Contracts and Permissions Department, The Riverside Publishing Company, 3800 Golf Rd., Suite 100, Rolling Meadows, IL 60008-4015.

Printed in the United States of America.

### **Reference Citation**

■ To cite this document, use:

Schrank, F. A., Alvarado, C. G., & Wendling, B. J. (2010). *Interpretive Supplement: Instructional interventions for English language learners related to the Woodcock-Muñoz Language Survey—Revised Normative Update*. Rolling Meadows, IL: Riverside Publishing.

For technical information, please call 800.323.9540, visit our website at [www.woodcock-johnson.com](http://www.woodcock-johnson.com), or send us an e-mail at [rpcwebmaster@hmhpub.com](mailto:rpcwebmaster@hmhpub.com).

1 2 3 4 5 6 7 8 9—RRD—12 11 10 09

# Table of Contents

<b>Overview</b>	<b>1</b>
<b>The WMLS-R NU and Measurement of Cognitive-Academic Language Proficiency (CALP)</b>	<b>2</b>
<b>Evidence Bases for the Instructional Interventions Program</b>	<b>6</b>
<b>Instructional Interventions in the IIP/WMLS-R NU</b>	<b>11</b>
Oral Language Development Interventions	11
Literacy Development Interventions	15
<b>Summary</b>	<b>20</b>
<b>References</b>	<b>21</b>
<b>Appendix A: Sample Comprehensive Report</b>	<b>35</b>

## List of Tables

Table 1.	Tests and Clusters Available in the WMLS-R NU _____	2
Table 2.	Cognitive-Academic Language Processes (CALP) Measured by the WMLS-R NU Tests _____	5
Table 3.	IIP/WMLS-R NU Instructional Interventions Based on Evidence from the Education of English Language Learners _____	7
Table 4.	IIP/WMLS-R NU Instructional Interventions Based on Evidence from the Education of Native Speakers of English _____	9

# Overview

The Report of the National Literacy Panel on Language-Minority Children and Youth (August & Shanahan, 2006) noted that accurate assessments are essential for determining the proficiency levels of language-minority students so that instruction can be tailored to meet their identified needs. The *Instructional Interventions Program for the Woodcock-Muñoz Language Survey–Revised Normative Update* (IIP/WMLS-R NU) (Schrank, Alvarado, Wendling, & Woodcock, 2009) is a computer software scoring and interpretive program that links student performance on the *Woodcock-Muñoz Language Survey–Revised Normative Update* (WMLS-R NU) (Woodcock, Muñoz-Sandoval, Ruef, & Alvarado, 2005, 2009) with specific evidence-based educational interventions. Whereas the WMLS-R NU helps educators develop an understanding of a student’s language proficiency levels, the IIP/WMLS-R NU includes a bank of targeted, evidence-based instructional interventions to meet the student’s specific language learning needs. From the bank of identified interventions, evaluators or teachers can select the most appropriate interventions for each student.

The instructional interventions and recommendations available in the IIP/WMLS-R NU are designed to help facilitate attainment of many language-learning objectives and standards across the domains of speaking, listening, reading, and writing. Although the WMLS-R NU and the IIP/WMLS-R NU are often used with English language learners (ELLs), both tools can be used with native speakers of English to assess and determine interventions for the student’s language learning needs.

This interpretive supplement to the IIP/WMLS-R NU includes three related topics. The supplement begins with a discussion of how the WMLS-R NU measures the construct of cognitive-academic language proficiency, or CALP. The next section of the supplement documents the sources of evidence for the instructional interventions that are available in the IIP/WMLS-R NU. The remainder of the supplement is a discussion and rationale for use of the evidence-based instructional interventions contained in the IIP/WMLS-R NU. Appendix A is a sample comprehensive report from the IIP/WMLS-R NU. This sample report contains instructional interventions for a 7-year, 9-month-old male whose first language is Spanish. This student was administered both the WMLS-R NU English Form A and the Spanish Form.

# The WMLS-R NU and Measurement of Cognitive-Academic Language Proficiency (CALP)

The WMLS-R NU includes seven tests for measuring proficiency in oral language, reading, and writing. The seven tests include Test 1: Picture Vocabulary, Test 2: Verbal Analogies, Test 3: Letter-Word Identification, Test 4: Dictation, Test 5: Understanding Directions, Test 6: Story Recall, and Test 7: Passage Comprehension. Different combinations of tests form clusters for interpretive purposes, including, among others, Oral Language, Reading, and Writing. Table 1 outlines the tests and clusters available in the WMLS-R NU.

**Table 1.**  
*Tests and Clusters Available in the WMLS-R NU*

WMLS-R Tests	Academic Language Clusters										
	Oral Language	Reading-Writing	Broad English Ability	Listening	Oral Expression	Reading	Writing	Language Comprehension	Applied Language Proficiency	Oral Language–Total	Broad English Ability–Total
1. Picture Vocabulary	■	■	■					■	■		
2. Verbal Analogies	■	■	■					■	■		
3. Letter-Word Identification		■	■		■						■
4. Dictation		■	■			■		■	■		■
5. Understanding Directions			■					■	■	■	■
6. Story Recall				■			■	■	■	■	■
7. Passage Comprehension					■		■	■	■		■

The WMLS-R NU has two forms in English and one form in Spanish. Many students identified as ELLs speak Spanish (about 70% of all ELLs in the United States), and administering the WMLS-R NU Spanish form to these students, in conjunction with the English form, provides information on the student's relative proficiency in each language. For Spanish-speaking ELLs, this is an important protocol because determination of native language proficiency in Spanish often provides a good prognostic indicator of future English literacy development (August & Shanahan, 2006; Genesee, Lindholm-Leary, Saunders, & Christian, 2006). Also, comparative language information can be useful for determining whether content-instruction should be delivered in English or Spanish. Even when English is determined to be the primary language of instruction—or if English instruction is the only option—dual-language ability assessment with the WMLS-R can provide important information about whether the student has acquired (in either language) foundational phonological knowledge, academic vocabulary, or reading comprehension strategies. This is important for evaluators to know because many literacy skills learned in Spanish can be effectively applied and transferred to learning English (Bialystok, Luk, & Kwan, 2005; August, Calderón, & Carlo, 2002; August & Shanahan, 2006; Cunningham & Graham, 2000; Riches & Genesee, 2006).

## Distinguishing CALP from BICS

The WMLS-R NU provides measures of CALP, a construct initially formalized by Cummins (1984). Cummins distinguished the construct of CALP from basic interpersonal communication skills (BICS). BICS typically develop more naturally and within a context of immediate goals and familiar patterns of events; this form of conversational proficiency can be developed outside of formal schooling. For example, some ELLs are able to manipulate the English language sufficiently to communicate and respond to simple questions but are not able to understand the language used in content learning; such students demonstrate the use of BICS but are lacking in CALP. Their language-learning needs may not be immediately obvious to a teacher until the task requirements necessitate the use of academic language.

In contrast to BICS, CALP is defined as the language proficiency of academic situations that emerges and becomes distinctive with formal schooling. For example, the construct of CALP includes words that are not typically a part of everyday conversation and are usually learned in academic settings only—words such as *analyze*, *contrast*, *therefore*, or *examine*. CALP is further defined by literary skills involving conceptual-linguistic knowledge that occurs in the context of semantics, abstractions, and context-reduced linguistic forms, such as the ability to reason with words. Limitations in CALP are directly related to difficulties in academic learning (Frances, Rivera, Lesaux, Kieffer, & Rivera, 2006).

## How the WMLS-R NU Measures CALP

It is difficult to understand a word or concept without any conceptualization of it, and many ELL students lack adequate background and the vocabulary knowledge that is required for academic learning. In the WMLS-R NU, Test 1: Picture Vocabulary provides an index of a student's level of background knowledge. In this test, the student is required to recognize an object and retrieve a name for the object from his or her store of vocabulary knowledge. Test 2: Verbal Analogies is a verbal reasoning task that requires the student to analyze the relationship between the words in the first part of the analogy and then to map (or project) that structure onto the second part of the analogy. The task requires the student to access his or her knowledge of words and their meanings.

Background and vocabulary knowledge are major factors in reading comprehension (Bernhardt, 2005; Duran, O'Connor, & Smith, 1998) because without this knowledge, students are unable to build the mental representations that must occur during the process of understanding text while it is being read. Gersten, Fuchs, Williams, and Baker (2001) found that many students do not understand what they read because they have difficulty producing a mental representation of the information that is provided by the text. Test 7: Passage Comprehension, measures the students' ability to derive meaning from a passage through building mental representations that correspond to the words and sentences they are reading.

Background and vocabulary knowledge is also required to comprehend the key elements of an orally presented story in Test 6: Story Recall. Speaking ability is needed to complete the task requirements. In this test, the student must "recode" his or her mental representations by retelling the story in his or her own words.

In Test 5: Understanding Directions, the student must use listening skills to comprehend a series of oral commands and create a mental representation of the string of commands so that he or she can point, in sequence, to the specified objects in a picture. This is a language comprehension task that requires mapping of one instruction onto another, a type of working memory task that is often required in academic learning.

In Test 3: Letter-Word Identification, the student must be able to access one of two routes to reading words (Humphreys & Evett, 1985). If the student cannot automatically recognize the visual word form and pronounce the word, he or she may be able to access the component phonemes of the word to articulate a pronunciation. The first route to reading words is based on a well-developed vocabulary base and reading decoding skills. The second route to reading is based on the ability to access words from the sounds (phonemes) associated with the printed graphemes and then say the sounds smoothly as a whole word.

Similarly, Test 4: Dictation measures knowledge of how to encode spoken words into their written forms. The spelling tasks can be solved by retrieval of whole-word orthography (if the word is contained in the student's lexicon) or by translation of phonemic segments into graphemic units. This test also evaluates knowledge of writing conventions and applying lexical information and details of word forms, such as correct punctuation and capitalization rules. Since words are made up of units of sound (phonemes), as well as units of meaning (morphemes), evaluating a student's ability to spell these elements contributes to an understanding of his or her stored word knowledge.

In Table 2, each of the WMLS-R NU tests is linked to the construct of CALP via a specification of the academic tasks and cognitive processes<sup>1</sup> that are required in that test. This is an important specification because the information about cognitive processing provides a conceptual guide to the types of interventions that may increase competency in related academic tasks. As articulated by Wong, Harris, Butler, and Graham (2003, p. 392), "An implication, borne out in research, is that student performance should improve when teachers structure instruction and academic work to cue effective processing." Based on this model, the instructional interventions included in the IIP/WMLS-R NU are intended to help develop cognitive-academic language proficiency—the type of language ability required for academic success.

---

<sup>1</sup> In Table 2, citations refer to classic and contemporary cognitive and neuroscience information-processing research that supports the specification of the cognitive processes required for each type of academic task.



**Table 2.**  
*Cognitive-Academic  
 Language Processes  
 (CALP) Measured by the  
 WMLS-R NU Tests*

<b>Test</b>	<b>Academic Task</b>	<b>Cognitive Processes</b>
Test 1: Picture Vocabulary	Identifying and naming a picture of an object	Recognizing objects (Marr, 1982); access and retrieval of object names (Gazzaniga, Irvy, & Mangun, 1998)
Test 2: Verbal Analogies	Listening to three words of an analogy and then completing the analogy with an appropriate fourth word	Semantic access (Caplan, 1992; Gazzaniga et al., 1998); analysis of the relationship between words by induction of the structure for the first part of the analogy and then mapping (or projecting) that structure onto the second part of the analogy (Gentner & Markman, 1997); mental activation of closely related words (Gazzaniga et al., 1998)
Test 3: Letter-Word Identification	Identifying and pronouncing single letters and words	Analysis and detection of letter features (Gibson, 1965; McClelland & Rumelhart, 1981); automatic recognition of visual word forms (Ashcraft, 1995; Caplan, 1992); and/or phonological access to pronunciations associated with visual word forms (Coltheart, 1978)
Test 4: Dictation	Writing letter names and producing correct spellings; applying correct punctuation and capitalization rules	Access to and application of knowledge of orthography of word forms by mapping whole-word phonology onto whole-word orthography by translating phonological segments into graphemic units or by activating spellings of words from the semantic lexicon; access to and application of lexical information and details of word forms (Caplan, 1992; Hotopf, 1980; Gazzaniga et al., 1998; Ashcraft, 1995)
Test 5: Understanding Directions	Listening to a series of oral commands and pointing, in correct sequence, to specified objects in a picture	Mapping a series of sequential directions onto a mental structure under construction and maintaining the sequence in immediate awareness until a new directive changes the sequence (Gernsbacher, 1990, 1991, 1997)
Test 6: Story Recall	Listening to a connected passage and then orally recalling the elements of the passage	Comprehending and remembering the principal components of a story by constructing mental representations (Anderson, 1976, 1985; Kintsch, 1974) and by recoding in the student's own words (Miller, 1956)
Test 7: Passage Comprehension	Silently reading a written passage and completing the passage with a single word	Deriving meaning from a passage through building mental representations based on concepts from background and word knowledge. The meaning of the passage is held in awareness as the passage is read. As more elements are added to the passage, they are also added to the mental representation via mapping (Ashcraft, 1995; Zhou & Black, 2000). The task is solved through inference (Klin, 1995), the process by which the reader determines the referents of words and ideas, draws connections between concepts (Clark, 1977), and derives a conclusion from the passage

# Evidence Bases for the Instructional Interventions Program

The interventions for ELLs in the IIP/WMLS-R NU are based on several recent, well-respected, and comprehensive sources of research evidence. A few deserve specific mention. The first is entitled *Developing Literacy in Second-Language Learners: Report of the National Literacy Panel on Language-Minority Children and Youth* (August & Shanahan, 2006). The August and Shanahan findings and recommendations are validated by another independent research team that published *Educating English Language Learners: A Synthesis of Research Evidence* (Genesee, Lindholm-Leary, Saunders, & Christian, 2006). Major programming implications of recent research with elementary school-aged students are articulated in the U.S. Department of Education's Institute of Educational Sciences (IES) Practice Guide entitled *Effective Literacy and English Language Instruction for English Learners in the Elementary Grades* (Gersten et al., 2007). For adolescent ELLs, the programming implications and recommendations are outlined in a report to the Carnegie Corporation by Short and Fitzsimmons (2007) entitled *Double the Work: Challenges and Solutions to Acquiring Language and Academic Literacy for Adolescent English Language Learners*. Analysis of these primary research reviews and policy statements led to many other sources of practical and validated instructional interventions.

The IIP/WMLS-R NU focuses on evidenced-based instructional interventions that have been demonstrated to be beneficial for ELL students. The corpus of research on instructional interventions for ELLs, however, is relatively recent and there are many areas of instructional focus that deserve further study. Consequently, the IIP/WMLS-R NU also includes many applicable instructional interventions obtained from research with native English speaking students. Many evidence-based interventions obtained from research with native speakers of English will apply to ELLs (Frances, Rivera, Lesaux, Kieffer, & Rivera, 2006) when appropriately incorporated within a comprehensive, systematic, and intensive program of English language development for ELLs. As stated by Genesee et al. (2006, p. 205), "a program that is enriched, consistent, and provides a challenging curriculum is also endorsed by research on factors associated with effective programs for ELLs."

Table 3 is an outline of the broad categories of IIP/WMLS-R NU interventions that are based on evidence from the education of ELLs. Similarly, Table 4 is an outline of the broad categories of interventions available in the IIP/WMLS-R NU that are based on evidence from the education of native speakers of English. In total, the IIP/WMLS-R NU provides more than 200 interventions that have been aligned with the cognitive-academic processes measured by the WMLS-R NU tests and clusters.

**Table 3.**  
*IIP/WMLS-R NU Instructional Interventions Based on Evidence from the Education of English Language Learners*

<b>Category of Intervention</b>	<b>Source of Evidence</b>
Provide intensive daily English language development instruction	Gersten et al., 2007; Graves & Fitzgerald, 2006; Short & Fitzsimmons, 2007; Graves, 2006; August, 2003; Echevarria, Vogt, & Short, 2008
Provide explicit vocabulary instruction	Gersten et al., 2007; Perez, 1981; Rousseau et al., 1993; Diamond & Gutlohn, 2006; Avila & Sadoski, 1996; McLaughlin et al., 2000; Ulanoff & Pucci, 1999; Carlo et al., 2004; Vaughn-Shavuo, 1990; Stahl & Nagy, 2006; National Reading Panel, 2000
Link oral language instruction to real-life experiences	Garcia & Godina, 2004; Short, 1999; Echevarria, Short, & Powers, 2006; Schleppegrell, Achugar, & Orteiza, 2004; Gersten et al., 2007; Short & Fitzsimmons, 2007
Develop oral language proficiency as part of content requirements	Short & Fitzsimmons, 2007; Genesse et al., 2006; August, 2002; Echevarria et al., 2006; Gersten et al., 2007; Echevarria et al., 2008; Short, 1999
Build and activate background knowledge	Bernhardt, 2005; Gonzalez et al., 1993; Moje et al., 2004; Short & Fitzsimmons, 2007; Marzano, 2004
Connect instruction to prior knowledge	Short & Fitzsimmons, 2007; Duran et al., 1988; Garcia & Godina, 2004; Short, 1999
Academic word list/link vocabulary to classroom instruction	Gersten et al., 2007; Coxhead, 2000
Repetition/variation of key words	Echevarria et al., 2008; Cary, 1997; Marzano, 2004; National Reading Panel, 2000; Stahl, 2005
Focused, academic discussions	Cary, 1997; Gersten et al., 2007; Krashen, 2002; Crawford, 2002; Graves & Fitzgerald, 2002; Marzano, 2004; Stahl & Nagy, 2006
Spanish language literacy transfers to English	August et al., 2002; Bialystok, Luk, & Kwan, 2005; Cunningham & Graham, 2000; August & Shanahan, 2006; Riches & Genesee, 2006
Organizing instruction around a theme	Short & Fitzsimmons, 2006; Echevarria et al., 2006; Garcia & Godina, 2004; Cary, 1997; Schleppegrell et al., 2004; Short, 1999
Use interactive learning environments	Gersten et al., 2007; Short & Fitzsimmons, 2007; Padron, 1992; Calderón et al., 1998; Fayden, 1997; Klingner & Vaughn, 1996, 2000; Doherty et al., 2003
Joint-productive activities	Gersten et al., 2007; Short & Fitzsimmons, 2007
Promote extensive speaking and writing	Gersten et al., 2007
Multimedia instructional projects	Kim & Kamil, 2004; Warschauer, Grant, Del Real, & Rosseau, 2004; Short & Fitzsimmons, 2007
Specialized curricula and restructured materials	Short & Fitzsimmons, 2007; National Reading Panel, 2000; Echevarria et al., 2008
Leverage native language for teaching and learning	Short & Fitzsimmons, 2007; August et al., 2002; Bialystok et al., 2005; Cummins, 2002; August & Shanahan, 2006; Garcia, 2002; Thomas & Collier, 2001; Gumperz, Cook-Gumperz, & Szymanski, 1999
Use cognates and structural analysis to find meanings of unfamiliar English words	Gersten et al., 2007; Diamond & Gutlohn, 2006; August, 2003; August et al., 2005; Echevarria et al., 2008

**Table 3. (continued)**  
*IIP/WMLS-R NU Instructional Interventions Based on Evidence from the Education of English Language Learners*

<b>Category of Intervention</b>	<b>Source of Evidence</b>
Show what is meant	Cary, 1997; Crawford, 2002
Act out action words	Cary, 1997; Crawford, 2002
Total physical response	Cary, 1997; Crawford, 2002
Use simple sentence structures	Echevarria et al., 2008
Reinforce concepts with hands-on learning	Echevarria et al., 2008
Provide clear instructions for task requirements	Echevarria et al., 2008 ; Kamil, 2004
Provide concrete content objectives	Echevarria et al., 2008
Language practice strategies (e.g., repeating new words as they are introduced)	Echevarria et al., 2008
Use gestures to accompany oral communication	Echevarria et al., 2008
Identify unknown words by reading aloud	Echevarria et al., 2008 ; Ulanoff & Pucci, 1999
Model correct language use	Cary, 1997
Model the thinking, reading, writing, process	Cary, 1997; Garcia, 2002; Klinger & Vaughn, 1996; Fayden, 1997
Select key words from content/text material	Ruddell, 2005; Farstrup & Samuels, 2002; Krashen, 2002; National Reading Panel, 2000; August et al., 2005; Avila & Sadoski, 1996
Word attack techniques (root words, etc.)	August, 2003; Echevarria et al., 2008; Garcia & Godina, 2004; Short & Fitzsimmons, 2007; Graves, 2006; Bernhardt, 2005; Denti & Guerin, 2004
Word walls	Cunningham, 2004
Preview/contextualize key vocabulary words	Gersten et al., 2007; Beck, Perfetti, & McKeown, 1982; Graves & Fitzgerald, 2006; Echevarria et al., 2008; Blachowicz & Fisher, 2000; Biemiller, 2005; Ulanoff & Pucci, 1999; Echevarria et al., 2006; Stahl & Nagy, 2006
Word sorts	Bear, Invernizzi, Templeton, & Johnson, 2007
Academic word list/link vocabulary to instruction	Gersten et al., 2007; Coxhead, 2000
Bilingual reference materials	Short & Fitzsimmons, 2007; Krashen, 2002; Echevarria et al., 2008
Concept definition map for new vocabulary and concepts	Buehl, 2001; Short & Fitzsimmons, 2007
Graphic organizers	Barton, Heidama, & Jordon, 2002; Echevarria et al., 2008
Integrated instruction in oral language, reading, & writing	August & Shanahan, 2006; Gersten et al., 2007; Short & Fitzsimmons, 2007; Genessee et al., 2006; August, 2002; Echevarria et al., 2006
Keyword method	Avila & Sadoski, 1996
Word preview/review	Ulanoff & Pucci, 1999
Phonological awareness and phonics	Gersten et al., 2007; Gunn, Biglan, Smolkowski, & Ary, 2000, 2002; August & Shanahan, 2006; Short & Fitzsimmons, 2007; Kramer, Schell, & Rubison, 1983
Explicit instruction in consonants	Gersten et al., 2007; Bear, Templeton, Helman, & Baren, 2002
Use a reading intervention program	Gersten et al., 2007; Gunn et al., 2002; Gunn et al., 2000
Oral reading fluency interventions	De la Colina, Parker, Hasbrouck, & Lara-Alecia, 2001; Denton, 2000
Predictable texts	Cary, 1997; Cummins, 2002; Crawford, 2002

**Table 3. (continued)**

*IIP/WMLS-R NU Instructional Interventions Based on Evidence from the Education of English Language Learners*

Category of Intervention	Source of Evidence
High interest, low reading difficulty supplemental texts	Hornberger, 2003
Shared reading	Crawford, 2002; Graves & Fitzgerald, 2002; Fayden, 1997
Oral reading	De la Colina et al., 2001; Denton, 2000
Reading comprehension strategies	Bean, 1982; Bernhardt, 2005; Cary, 1997; Denti & Guerin, 2004; Garcia & Godina, 2004; Palinscar & Brown, 1984, 1985; Paris, Cross, & Lipson, 1984; Shames, 1998; Swicegood, 1990; Biemiller, 2005; Echevarria et al., 2006; Stahl & Nagy, 2006; Jimenez, Garcia, & Pearson, 1996
Reciprocal teaching	Hernandez, 1991; Valdés, 1999; Villasenor, 2003
Language experience approach	Vaughn-Shavuo, 1990
Daily writing practice	Echevarria et al., 2008
Frequent writing practice using words from reading	Echevarria et al., 2008
Comparison of spelling inventories	Bear et al., 2002
Brainstorming and clustering	Bermúdez & Prater, 1990
Specific instruction in the writing processes	Short & Fitzsimmons, 2007; Franken & Haslett, 1999; Gómez, Parker, Lara-Alecio, & Gómez, 1996; Prater & Bermúdez, 1993; Sengupta, 2000
Development of literacy outside of school	Moje et al., 2004; Orellana, Reynolds, Dorner, & Meza, 2003; Elley, 1991; Tsang, 1996; Tudor & Hafiz, 1989; Schon, Hopkins, & Davis, 1982; Schon, Hopkins, & Vojir, 1984, 1985

**Table 4.**

*IIP/WMLS-R NU Instructional Interventions Based on Evidence from the Education of Native Speakers of English*

Category of Intervention	Source of Evidence
Text talks	Beck & McKeown, 2001
Intentional, explicit word instruction	Beck, McKeown, & Kucan, 2002; Graves, Juel, & Graves, 2004; National Reading Panel, 2000
Independent word learning strategies	Anglin, 1993; Baumann, Edwards, Boland, Olejnik, & Kame'enui, 2003; Baumann, Kame'enui, & Ash, 2003; Blachowicz & Fisher, 2000; Carlisle, 2004; Graves, 2000; National Reading Panel, 2000
Development of word consciousness	Anderson & Nagy, 1992; Graves & Watts-Taffe, 2002; Nagy & Scott, 2000
Computerized vocabulary development programs	Davidson, Elcock, & Noyes, 1996
Independent reading for vocabulary development	Cunningham & Stanovich, 1991; Herman, Anderson, Pearson, & Nagy, 1987; National Reading Panel, 2000; Stahl, 1999; Anderson, 1996; Mastropieri, Leinart, & Scruggs, 1999; Anderson, Wilson, & Fielding, 1988
Semantic feature analysis; semantic maps	Sinatra, Berg, & Dunn, 1985; Johnson & Pearson, 1984; Pittelman, Heimlich, Berglund, & French, 1991; Anders & Bos, 1986
Activities for listening and following directions	Galda & Cullinan, 1991; Leung & Pikulsky, 1990; Clay, 1991
Modifying the listening environment	Hardiman, 2003
Opportunities to hear and practice using language	Moats, 2001; Hart & Risley, 1995
Use of an explicit, systematic, phonics program	Ehri, 1991; National Reading Panel, 2000; Snow, Burns, & Griffin, 1998

**Table 4. (continued)**

*IIP/WMLS-R NU Instructional Interventions Based on Evidence from the Education of Native Speakers of English*

<b>Category of Intervention</b>	<b>Source of Evidence</b>
Instruction in orthography	Moats, 2005; Templeton & Bear, 1992
Instruction in morphology	Anglin, 1993; Baumann, Edwards, et al., 2003; Baumann, Kame'enui, & Ash, 2003; Blachowicz & Fisher, 2000; Carlisle, 2004; Carlisle & Stone, 2005; Graves, 2000; National Reading Panel, 2000
Use of multisensory/multimodal techniques	Carreker, 2005; Fernald, 1943
Teaching spellings of common irregular words	Moats, 2005
Encouraging independent reading	Taylor, Frye, & Marayama, 1990; Anderson, Hiebert, Scott, & Wilkinson, 1985
Teaching use of computer spell checker	MacArthur, Ferretti, Okolo, Cavalier, 2001
Word recognition strategies: word walls	Brabham & Villaume, 2001
Word recognition strategies: flow lists	McCoy & Prehm, 1987
Graphosyllabic instruction	Bhattacharya & Ehri, 2004
Repeated reading	Begeny & Martens, 2006; Meyer & Felton, 1999; O'Shea, Sindelar, & O'Shea, 1985; Rashotte & Torgeson, 1985; Samuels, 1979, 1985
Passage previewing	Shany & Biemiller, 1995
Assisted reading	Shany & Biemiller, 1995
Practicing words in isolation	Levy, Abello, & Lysynchuk, 1997
Activating prior knowledge for reading comprehension	National Reading Panel, 2000; Ogle, 1986
Graphic organizers	Marzano, Pikerling, & Pollock, 2001; Gardill & Jitendra, 1999; Berkowitz, 1986
Reading comprehension: self-monitoring strategies	Brown & Palinscar, 1985; Babbs, 1984; Klinger & Vaughn, 1998; National Reading Panel, 2000
Reading comprehension: memory and imagery strategies	Gambrell & Jawitz, 1993; Mastropieri & Scruggs, 1988; Peters & Levin, 1986
Reading comprehension: cognitive strategy instruction	Trabasso & Bouchard, 2002; Wong & Jones, 1982; Schumaker, Deshler, Alley, Warner, & Denton, 1982
Reading comprehension: reciprocal teaching	Palinscar & Brown, 1984
Spelling instruction: multisensory techniques	Carreker, 2005; National Reading Panel, 2000; Ehri, 1998
Spelling: direct instruction	Edwards, 2003; Gordon, Vaughn, & Schumm, 1993; Graham, 1983
Frequent writing practice	Berninger et al., 1998; Moats, 1995
Write-Say method	Kearney & Drabman, 2001
Add-a-word spelling program	McLaughlin, Reiter, Mabee, & Byram, 1991; Schermerhorn & McLaughlin, 1997
Spelling: use of group contingencies	Popkin & Skinner, 2003; Shapiro & Goldberg, 1986; Truchlicka, McLaughlin, & Swain, 1998
Proofreading strategies	Lanham, 1992; Hillocks & Smith, 1991; Lane & Lange, 1993
Peer editing	Stoddard & MacArthur, 1993
Computer technology for writing	MacArthur et al., 2001

# Instructional Interventions in the IIP/WMLS-R NU

The IIP/WMLS-R NU contains a large pool of instructional interventions that have been validated for use with ELLs and many additional interventions that have been validated with native speakers of English. The following sections provide a broad overview of the evidence-based instructional interventions in the IIP/WMLS-R NU. The overview of the interventions is broadly separated into two categories: oral language development and literacy development.

## Oral Language Development Interventions

By definition, an ELL is a student who is developing proficiency in English, particularly academic English. In order to succeed academically, a student who is an ELL must learn the language of the classroom at the same time he or she must master academic content (Short & Fitzsimmons, 2007). Five or more years of intensive, daily English language instruction may be required for ELLs to develop a level of academic language proficiency that is comparable to that of native-language speaking peers (Collier, 1987; Cummins, 1979; Lindholm & Aclan, 1991). Consequently, development of academic language proficiency should be a primary instructional objective for every ELL, regardless of whether the student has a formal designation to receive support services and even, in many cases, if the student has been identified as having sufficient English proficiency for participation in English-only instruction without specialized support.

### *Development of academic language proficiency*

Gersten et al. (2007, p. 5) emphasize “the importance of intensive, interactive English language development instruction for all English learners. This instruction needs to focus on developing academic language (i.e., the decontextualized language of schools, the language of academic discourse, of texts, and of formal argument.”

Gersten and colleagues strongly recommend that elementary school teachers of ELLs provide high-quality vocabulary instruction throughout the school day, teaching essential content words in depth. Understanding of common words, phrases, and expressions (everyday words that native language speakers may already know) that an ELL student has not yet learned are important language features that need to be addressed. Engaging, interactive vocabulary instruction that emphasizes “student friendly” definitions may provide the most benefit (Carlo et al., 2004; Perez, 1981; Rousseau et al., 1993).

A primary theme from Short and Fitzsimmons’s (2007) report is that secondary school academic courses for adolescent ELLs should address language-development needs as well as content-knowledge requirements. Because many traditional instructional methods used in high schools, such as lectures and worksheets, may not be effective for adolescent ELLs (Tharp, Estrada, Dalton, & Yamauchi, 2000), Short and Fitzsimmons (2007) set forth a number of instructional principles and evidence-based interventions for adolescent ELLs. Their report suggests that ELL students will make greater gains in learning when instruction is based on real-life experiences or is thematic in nature (Echevarria, Short, & Powers, 2006; Garcia & Godina, 2004; Schleppegrell et al., 2004; Short, 1999). Joint-productive activities (Gersten, et al., 2007; Short & Fitzsimmons, 2007) provide adolescent ELLs with

opportunities to (1) promote oral language use and (2) facilitate literacy development in the context of social interaction.

To facilitate the development of academic language proficiency, a number of interventions articulated in the IIP/WMLS-R NU recommend that instruction for ELLs and students with limited language proficiency should consistently focus on academic language requirements in conjunction with their content learning needs. The term *sheltered instruction* is used to refer to content-area instruction for ELLs where language development objectives are articulated for every lesson, identifying the essential vocabulary that is needed for understanding (Short & Fitzsimmons, 2007). In addition, the IIP/WMLS-R NU recommends basing academic instruction on real-life experiences and connecting instruction to the student's background knowledge.

### ***Vocabulary development and background knowledge***

In the IIP/WMLS-R NU, several interventions involve connecting current instruction to prior knowledge or building background knowledge (Bernhardt, 2005; Gonzalez et al., 1993; Moje et al., 2004; Short & Fitzsimmons, 2007; Duran et al., 1988; Garcia & Godina, 2004; Short, 1999; Marzano, 2004). For example, an important instructional intervention for ELLs involves developing a connection between the topic of instruction and what the learner already knows (Short & Fitzsimmons, 2007). This is sometimes referred to as “activating prior knowledge.” Activating what a student already knows from personal experience, prior schooling, or family history will aid comprehension of current tasks (Short & Fitzsimmons, 2007; Bernhardt, 2005; Marzano, 2004; August & Shanahan, 2006; Echevarria et al., 2006). Research evidence also shows that when students are encouraged to relate their background knowledge to the material being studied (Gonzalez, et al., 1993; Moje et al., 2004), the students become more engaged in learning. Teachers can help a student activate prior knowledge by asking questions such as, “What do you remember or know about \_\_\_\_?” Some ways to help build background knowledge (when little or none exists) include introducing new topics with short video clips, demonstrations, or field experiences.

Because all language-based learning is dependent on vocabulary knowledge (Baker, Simmons, and Kame'enui, 1998), a strong and constantly growing lexicon (vocabulary) is necessary for academic learning. Knowledge of words and their meanings is fundamental to reading comprehension and understanding classroom instructors who teach content (August, Carlo, Dressler, & Snow 2005; Graves, 1986; 2000; 2006; Graves and Fitzgerald, 2002). Fortunately, there are many available evidence-based interventions that are intended to develop background knowledge and vocabulary.

Vocabulary development often requires explicit interventions, such as word sorts (Bear et al., 2007), concept definition maps (Buehl, 2001; Short & Fitzsimmons, 2007), and use of graphic organizers (Barton et al., 2002; Echevarria et al., 2008). One intervention in the IIP/WMLS-R NU suggests that teachers use a basic vocabulary word list (such as the Dale-Chall list of basic vocabulary words) to select target words for the learner (Dale, 1965; Diamond & Gutlohn, 2006). Gersten and colleagues (2007) recommend that school districts develop districtwide lists of essential words for vocabulary instruction, drawing words from the district's core reading program and from other textbooks used in key curriculum areas. These lists of essential vocabulary words are particularly important for ELLs. A number of interventions based on the need to learn essential vocabulary words are included in the IIP/WMLS-R NU.

Students also can be taught strategies to remember words, such as orally repeating a word that is new to them (Echevarria et al., 2008). An ELL requires repeated exposure to key words needed for learning (Stahl, 2005). The words should be used repeatedly and in a



variety of ways. Paraphrasing and repetition of key words by a teacher or peer can enhance the student's understanding of the word and contribute to concept development (Cary, 1997; Echevarria et al., 2008; Marzano, 2004). Students also can orally repeat words that are new as a learning strategy (Echevarria et al., 2008).

Demonstrations, use of gestures, pictures, and visuals also can be used to help ELL students understand and remember words (Cary, 1997; Crawford, 2002; Short & Fitzsimmons, 2007; Marzano, 2004). For students with very limited English language proficiency, reinforcing words or concepts with hands-on learning and use of simple sentence structures helps reduce the impact of language on learning (Echevarria et al., 2008). Using audio books and following along with a written text provides students with a model for word pronunciation and exposes the students to a greater number and variety of words (Short & Fitzsimmons, 2007).

### *Leveraging learning through use of the native language*

Research suggests a relationship between first- and second-language proficiencies. Oral language proficiency in the student's native language provides an advantage in developing English oral language proficiency (Short & Fitzsimmons, 2007; August et al., 2002; Bialystok et al., 2005; Cummins, 2002; August & Shanahan, 2006; Garcia, 2002; Thomas & Collier, 2001).

An example of an intervention that accesses first language knowledge is to ask the student if an unknown word is similar to a related word in his or her first language. This helps develop cognate awareness, which is an important strategy in language development for ELLs (August et al., 2005; Diamond & Gutlohn, 2006; Gersten et al., 2007).

Another intervention that utilizes the student's native language is explaining a difficult concept or idea to an ELL in his or her native language. This intervention not only helps the student to understand the concept, but also helps him or her make connections between the native language and English words and their meanings (Short & Fitzsimmons, 2007; Cummins, 2002; Garcia, 2002; Thomas & Collier, 2001). Often, students with the same first language can explain the concepts or words to each other (Gumperz et al., 1999).

Formal academic instruction in the ELL's first language has been shown to provide an advantage in developing second language oral language proficiency and literacy (Thomas and Collier, 2001; August et al., 2002, Garcia, 2002; Cummins, 2002). Within the last two to three decades, research on the education of ELLs has yielded some important instructional insights. Thomas and Collier (2001) demonstrated that bilingually schooled students outperformed comparable monolingually schooled students in academic achievement after 4 to 7 years of dual-language schooling that included native language instruction. However, native language programs of only 1 to 3 years in duration yielded poor results. Thomas & Collier suggested that the minimum length of time it takes to reach grade-level performance in English as the second language is 4 years. Other studies also have found that students who are ELLs and do not receive assistance from either ESL or bilingual programs have higher dropout rates (Curiel, Rosenthal, & Richeck, 1986; Theobald, 2003). Artiles, Rueda, Salazar, and Higareda (2005) reported that ELLs in English immersion classrooms were almost three times more likely to be identified as learning disabled than ELLs in bilingual education. These studies suggest that native language instruction should be an important consideration for ELLs.<sup>2</sup>

---

<sup>2</sup> Unfortunately, some states prohibit or restrict native language instruction. IIP/WMLS-R NU evaluators who prefer to have native language instruction recommendations excluded from the report can elect to do so by selecting "Exclude Language of Instruction Statements" as a report option.

### *Use of interactive learning environments*

Gersten et al. (2007) recommend that use of interactive learning environments of no fewer than 90 minutes each week be specified as part of an ELLs program of instruction. One of the most consistent research findings is that interactive learning environments provide ELLs with opportunities to practice their communication skills using the vocabulary and concepts of instructional focus (Gersten, et al., 2007; Short & Fitzsimmons, 2007; Padron, 1992; Calderón et al., 1998; Fayden, 1997; Klingner and Vaughn, 1996; 2000; Doherty et al., 2003). To effectively implement an interactive learning environment, teachers must provide opportunities for students to work together on academic tasks, using English as the language of communication. In this environment, ELLs have the opportunity to use English to communicate their needs and thoughts, clarify their ideas, and explain their understanding of the academic material (Cary, 1997; Krashen, 2002; Crawford, 2002; Graves & Fitzgerald, 2002; Marzano, 2004; Stahl & Nagy, 2006).

Many instructional interventions in the IIP/WMLS-R NU were written to emphasize the importance of interactive learning environments. Interactive learning environments strategically engage one or more learners with one or more mature speakers, readers, and/or writers. Students of differing language ability levels work together on academic tasks in a structured fashion, practicing and extending the language objectives introduced or taught by the teacher. The less proficient students learn from more experienced students, first as observers of the more literate students and subsequently by internalizing the academic behaviors that were demonstrated.

Discussion groups can be formed for specific assignments and purposes (Gersten et al., 2007), including discussions centered on the meanings of specific words or phrases (Cary, 1997). Interactive learning environments also help promote a culture of literacy among ELLs (Hudelson, 1994) through use of social interaction and guided instruction to facilitate learning.

### **Synopsis of Additional Oral Language Development Interventions Based on Evidence From the Education of Native Speakers of English**

In the WMLS-R NU, there are many additional evidenced-based oral language development interventions that were obtained from research with native speakers of English. For example, a text talk (Beck & McKeown, 2001) is an approach to reading text aloud and encouraging students to talk about what is read. Intentional explicit word instruction involves the direct teaching of synonyms, antonyms, and multiple-meaning words (Graves et al., 2004; Beck, McKeown, & Kucan, 2002; National Reading Panel, 2000). Teaching of independent word-learning strategies such as identification and use of context clues, use of a dictionary and other reference tools, and direct instruction in morphology are also effective (Carlisle, 2004; Baumann, Edwards et al., 2003; Baumann, Kame'enui, & Ash, 2003; Blachowicz & Fisher, 2000; Graves, 2000; National Reading Panel, 2000; Anglin, 1993). Activities designed to develop word consciousness (Graves & Watts-Taffe, 2002; Nagy & Scott, 2000; Anderson & Nagy, 1992) and that use well-supervised computer programs (Davidson et al., 1996) are also useful.

For students who have developed some proficiency in English, possible vocabulary-building interventions include increased time spent reading at the student's independent reading level (Cunningham & Stanovich, 1991; Herman et al., 1987), reading for different purposes (National Reading Panel, 2000; Stahl, 1999; Anderson, 1996), semantic feature analysis (Pittelman et al., 1991; Anders & Bos, 1986), and semantic maps (Sinatra et al., 1985; Johnson & Pearson, 1984). For those students who have developed reading ability

in English, incidental word learning will develop in relationship to the amount of time a student spends reading (Mastropieri et al., 1999; Cunningham & Stanovich, 1991; Anderson et al., 1988). Reading for different purposes and at different levels of difficulty exposes the student to new words that he or she would never encounter in oral language alone and helps create connections between words (National Reading Panel, 2000; Stahl, 1999; Anderson, 1996).

Academic competency is not merely a matter of completing reading and writing assignments; it involves the integration of related cognitive processes such as listening and verbal reasoning. The WMLS-R NU is comprised of tests that include listening and verbal reasoning; concomitantly, the IIP/WMLS-R NU includes related interventions when proficiency is low in these important aspects of CALP. For example, possible evidence-based interventions for listening include opportunities to practice listening and following directions (Galda & Cullinan, 1991; Leung & Pikulski, 1990), echo activities (Clay, 1991), and modify the listening environment (Hardiman, 2003). For a young child, games such as Simon Says or Follow the Leader are enjoyable ways to develop listening abilities. These games are particularly useful because they require a motor response that demonstrates whether or not the child is following the directions. Verbal reasoning abilities are further developed through opportunities to hear and practice using language (Moats, 2001; Hart & Risley, 1995) by being engaged in the verbal interaction of the classroom.

## Literacy Development Interventions

Reading and writing are mutually reinforcing skill domains for ELLs, just as they are for native English speakers (August, 2002; Echevarria et al., 2006). In this section, the term *literacy* is used to align with the findings and recommendations of the report of the National Literacy Panel on language-minority children and youth (August & Shanahan, 2006).

### *Integration of reading, writing, and oral language instruction*

Oral language development lays the groundwork for reading and writing. In turn, reading helps develop writing skills and writing helps develop reading skills. Research indicates that achievement is often higher in both areas when reading and writing are taught together (Tierney & Shanahan, 1991). For these reasons, it may be important to consider integrated instruction in oral language, reading, and writing when planning an instructional program for ELLs (August, 2002; Echevarria et al., 2006; Genesee et al., 2006; Gersten, et al., 2007; Short & Fitzsimmons, 2007).

A confluence of research evidence (August & Shanahan, 2006; Echevarria et al., 2006; Genesee et al., 2006; Gersten et al., 2007; Short & Fitzsimmons, 2007) suggests that ELLs benefit most from the integration of reading, writing, and oral language instruction across all curriculum domains. For example, knowledge of words and their meanings is associated with reading comprehension ability. For ELLs, explicit (direct) daily vocabulary instruction, integrated in all parts of the curriculum, has been demonstrated to increase reading comprehension ability (Gersten, et al., 2007; Pardon, 1992; Perez; 1981; Rousseau et al., 1993; McLaughlin et al., 2000).

### *Direct instruction in interactive learning environments*

It is well documented that interactive learning environments positively influence the reading vocabulary level, reading comprehension ability, and writing skills of ELLs (Calderón et al., 1998; Echevarria, 1996; Padron, 1992; Fayden, 1997; Klingner & Vaughn, 1996; 2000; Doherty et al., 2003). However, research based on ELLs also has shown that direct

instruction approaches and interactive learning environments can be combined effectively (Genesee et al., 2006; Padron, 1992; Doherty et al., 2003; Goldenberg, 1992; Saunders & Goldenberg, 1999). As stated by Genesee et al. (2006, p. 140), “Presenting direct instruction in interactive learning environments ensures that it is meaningful, contextualized, and individualized.” Direct instruction appears to be particularly useful for teaching word- and text-level language skills (Genesee et al., 2006). Examples of the direct instruction approach include the keyword method (Avila & Sadoski (1996) and the word preview/review method (Ulanoff & Pucci, 1999).

### ***Small group interventions recommended for at-risk students***

Gersten et al. (2007) strongly recommend the provision of intensive, small-group, direct-instruction interventions for elementary-aged students who are at risk for developing reading problems (Gunn et al., 2000; Gunn et al., 2002). The areas of focus could include, depending on each learner’s individual needs, phonological awareness, phonics, reading fluency, vocabulary, and reading comprehension interventions. For students who enter first grade with weak prereading skills, the program of interventions should be implemented for at least 30 minutes in small, homogenous groups of three to six students (Gersten et al., 2007).

### ***Beginning literacy instruction with phonemic awareness and phonics***

If an ELL has not already learned to read or write in any language, it is important to begin literacy instruction with phonemic awareness and phonics (August & Shanahan, 2006). This instruction can occur in either the student’s native language<sup>3</sup> or in English (Short & Fitzsimmons, 2007). Young Spanish speakers who are learning to read in English may benefit from phonemic awareness interventions that target certain English language phonemes that are not present in Spanish (Kramer et al., 1983). For example, the following English consonants exist in Spanish and their pronunciation is generally similar: /b/, /k/, /s/, /f/, /g/, /h/, /m/, /n/, /p/, /t/, /x/, /y/, and /ch/. The following English consonant sounds, however, do not exist in Spanish or sound significantly different and thus may cause difficulty for native Spanish speakers: /d/, /j/, /r/, /v/, /z/, /sh/, /th/ (as in “thin”), /zh/, /ng/, the beginning and ending blends with /s/, and ending blends with /r/ (Bear et al., 2002).

### ***Reading comprehension strategies***

Like many of their native English-speaking peers, ELL students may need specific instruction in reading comprehension strategies (Bean, 1982; Bernhardt, 2005; Denti & Guerin, 2004; Garcia & Godina, 2004; Palincsar & Brown, 1984, 1985; Paris et al., 1984; Shames, 1998; Swicegood, 1990). Effective reading comprehension interventions include developing and connecting background knowledge to reading material and preteaching key vocabulary words (Biemiller, 2005; Echevarria et al., 2006; Stahl & Nagy, 2006; Jimenez et al., 1996). Reciprocal teaching also has been shown to enhance reading comprehension of ELLs (Hernandez, 1991).

Adolescent ELLs may need to be specifically taught active reading processes (Garcia & Godina, 2004; Valdés, 1999; Villasenor, 2003; Fitzgerald, 1995; Baker, 2004) such as passage previewing; making predictions, inferences, or conclusions; and paraphrasing content.

---

<sup>3</sup> Research suggests that first language literacy is likely to transfer to second language literacy (August et al., 2002; Bialystok, et al., 2005; Cunningham & Graham, 2000, August & Shanahan, 2006; Riches & Genesee, 2006). This transfer is referred to as cross-language transfer of skills and knowledge. First language reading skill appears to provide a deep conceptual and linguistic proficiency that is strongly related to the development of literacy in the second language.

It is important to note, however, that if reading comprehension strategies are sufficiently acquired and applied in a student's native language, they often transfer to English (August, 2002; Riches & Genessee, 2006). Also, for adolescent ELLs with low levels of English reading ability, high-interest, low-reading-difficulty supplemental textbooks are beneficial accommodations (Hornberger, 2003).

### ***A language experience approach to reading and writing***

For an ELL who is already fluent in English oral language ability but is limited in reading ability, a language experience approach may be a beneficial supplement to direct reading instruction (Vaughn-Shavuo, 1990). In this type of intervention, the student might tell a story or relate an experience. The teacher or more advanced student would write a narrative about the story. Together, the student and teacher or more advanced student would edit and revise the story, as appropriate. Then the student would be asked to read his or her own text. The teacher would collect several stories authored by the student over time and help him or her create a book. The student would be asked to reread the book frequently.

### ***Teaching spelling***

Differences between English and Spanish spelling patterns can pose a difficulty for some ELLs. A comparison of spelling inventories administered in each language can provide valuable information (Bear et al., 2002). The words in spelling inventories are typically selected to assess critical aspects of the orthography. For example, an English-language spelling inventory may begin with CVC (consonant-vowel-consonant) words such as *can* to test the short *a* sound and the /k/ and /n/ consonant sounds, *let* to test the short *e* sound and the /l/ and /t/ consonant sounds, and *fish* to test the short *i* sound and the /f/ and /sh/ sounds. By comparing spelling inventories administered in both English and Spanish, insights are gained about the student's knowledge in each of the languages and if he or she is incorrectly applying the linguistic structure of Spanish-to-English spellings. For example, if the student spells *cook* as *cuk*, then the teacher might deduce that the student is using the Spanish vowel sound to spell a word in English. This specific information can be used to review the differences between any English and Spanish phoneme-grapheme correspondences that the student may have confused in the English spelling inventory.

### ***Structuring writing for ELLs***

Bermúdez and Prater (1990) showed how the use of brainstorming and clustering could help ELL students develop better writing skills. Specific instruction in the writing processes also may need to be taught explicitly, including the brainstorming, drafting, editing, and publishing phases (Short & Fitzsimmons, 2007). Well-structured writing programs, emphasizing the phases of the writing process (brainstorming, drafting, revising, editing, and proofreading) have been shown to be of benefit to ELL students (Franken & Haslett, 1999; Gómez et al., 1996; Prater & Bermúdez, 1993; Sengupta, 2000).

### ***Literacy development outside of the classroom***

Finally, research has shown that literacy can be facilitated outside of the classroom setting. For example, ELL students develop literacy skills when they paraphrase, interpret, and translate English-language materials for family members. They also increase their English literacy by using the Internet, reading magazines and books for pleasure, and sending e-mails to friends (Moje et al., 2004; Orellana et al., 2003). Encouraging ELL students to read English language materials outside of school has a positive effect on reading achievement (Elley, 1991; Tsang, 1996; Tudor and Hafiz, 1989; Schon et al., 1982; Schon et al., 1984, 1985).

## Synopsis of Additional Literacy Interventions Based on Evidence From the Education of Native Speakers of English

In the IIP/WMLS-R NU, many additional literacy development interventions are available based on evidence of efficacy from studies with native speakers of English. For example, use of an explicit, systematic, synthetic phonics program has proven to produce the largest gains for readers with poor decoding skills (National Reading Panel, 2000; Snow et al., 1998). These programs begin instruction at the phoneme level, teaching students to first manipulate the sounds (phonemes) in words during oral activities that build phonemic awareness. Later, they are taught associations between phonemes and the written letter or letters that represent them (graphemes). At this stage, they begin blending the sounds represented by letters in order to read phonetically regular words segmenting the sounds in order to write them. These programs also have been validated with ELLs (Gersten et al., 2007; Gunn et al., 2000; Gunn et al., 2002; August & Shanahan, 2006; Short & Fitzsimmons, 2007; Kramer et al., 1983).

Some related interventions include explicit, systematic instruction in phonics (National Reading Panel, 2000; Ehri, 1991), orthography (Moats, 2005; Templeton & Bear, 1992), and morphology (Anglin, 1993; Baumann, Edwards et al., 2003; Baumann, Kame'enui, & Ash, 2003; Blachowicz & Fisher, 2000; Carlisle, 2004; Carlisle & Stone, 2005; Graves, 2000; National Reading Panel, 2000); use of multisensory techniques (Carreker, 2005; Fernald, 1943); teaching common irregular words (Moats, 2005); providing frequent practice (Bridge, Winograd, & Haley, 1983); encouraging independent reading (Taylor et al., 1990; Anderson et al., 1985); and teaching use of computer spell checker (MacArthur et al., 2001).

Intentional explicit word instruction can be supplemented with word recognition strategies such as word walls (Brabham & Villaume, 2001), flow lists (McCoy and Prehm, 1987), word banks, flash cards, and games to help students develop the ability to recognize and decode words quickly. For example, a word wall might present five high-frequency words that the student needs to learn. The teacher engages the student in activities, both planned and unplanned, that use the words on the wall. This intervention helps build word recognition, word analysis skills, and vocabulary and serves as a spelling reference.

Teaching a student how to analyze the syllables within words (i.e., graphosyllabic instruction) may result in improved reading and spelling performance (Bhattacharya & Ehri, 2004). This method of instruction requires students to analyze the graphosyllabic makeup of words through a five-step process and provides corrective feedback. First, students read target words aloud, they are supplied with the word if they get it incorrect, and then they repeat the word again. Next, students would provide the meaning of the target word and would receive corrective feedback as needed. Students are then instructed to divide a word's pronunciation into its syllables by raising a finger with each beat and then announcing the number of beats (e.g., "ta-ble has two beats"). Then students would decode words by blending syllables.

Fluency-building interventions include repeated reading (Begeny & Martens, 2006; Meyer & Felton, 1999; O'Shea et al., 1985; Rashotte & Torgeson, 1985; Samuels, 1979, 1985), passage previewing, assisted reading (Shany & Biemiller, 1995), and practicing words in isolation (Levy et al., 1997). Reading fluency interventions also have been demonstrated to be beneficial for ELLs (De la Colina et al., 2001; Denton, 2000). These interventions may be beneficial for use with individual students or small group instructional programs. For example, in repeated reading, the student would read a short passage several times until he or she can read at an appropriate fluency level (or reading rate). In assisted reading, the student reads aloud while an accomplished reader follows along silently. If the student makes an error, the helping reader corrects his or her error. Allowing the student to orally

practice new words in isolation prior to reading the words in connected text also may increase his or her fluency while reading.

Reading comprehension is a complex cognitive process that requires intentional interaction between the reader and the text-to-construct meaning (Durkin, 1993). Various interventions to increase the capacity to perform the complex process of reading comprehension include activating the reader's prior knowledge (National Reading Panel, 2000; Ogle, 1986), use of graphic organizers (Marzano et al., 2001; Gardill & Jitendra, 1999; Berkowitz, 1986), self-monitoring strategies (National Reading Panel, 2000; Brown & Palincsar, 1985; Babbs, 1984; Klingner & Vaughn, 1998), and memory and imagery strategies (Gambrell & Jawitz, 1993; Mastropieri & Scruggs, 1998, Peters & Levin, 1986). Similiar reading comprehension interventions have been validated with ELLs (Bean, 1982; Bernhardt, 2005; Cary, 1997; Denti & Guerin, 2004; Garcia & Godina, 2004; Palincsar & Brown, 1984, 1985; Paris et al., 1984; Shames, 1998; Swicegood, 1990; Biemiller, 2005; Echevarria et al., 2006; Stahl and Nagy, 2006; Jimenez et al., 1996).

For example, linking new facts to prior knowledge about the topic increases inferential comprehension. Using a series of questions, the teacher activates the student's prior knowledge and then models making predictions using a think-aloud approach. Also, teaching the student to use graphic organizers will allow him or her to identify and analyze significant components of a text by mapping them out. Incorporating self-monitoring strategies will help the student recognize and resolve any comprehension errors as they arise. Various memory strategies that implement mental imagery are recommended for enhancing comprehension. One strategy requires the student to summarize the central idea of a passage as a "keyword" and then to make a mental picture of that keyword (Levin, Levin, Glasman, and Nordwall, 1992). The student also uses mental imagery to connect related ideas to the keyword.

Cognitive strategy instruction has been demonstrated to increase reading comprehension. Such strategies encourage active, self-regulated, and intentional reading (Trabasso & Bouchard, 2002). One example of a self-monitoring strategy is the five-step self-questioning technique that may be taught directly to students across multiple days to improve the comprehension of what is read (Wong & Jones, 1982). The five questions/self-statements, which apply to chunks of text and may be placed on a note card for use as a prompt, include the following:

- 1) What are you studying this passage for?
- 2) Find the main idea(s) in the paragraph and underline it/them.
- 3) Think of a question about the main idea you have underlined. Remember what a good question should be like.
- 4) Learn the answer to your question.
- 5) Always look back at the questions and answers to see how each successive question and answer provides you with more information. Another example of a reading comprehension intervention is *Multipass*, a meta-cognitive approach that a student can learn to use to better comprehend textbook content (Schumaker et al., 1982).

A reading comprehension intervention that combines strategy instruction and cooperative learning is reciprocal teaching (Palincsar & Brown, 1984). Reciprocal teaching uses small groups to help students develop critical thinking skills through reading, including setting a purpose for reading, reading for meaning, and self-monitoring of understanding. Specific comprehension strategies are taught, including generating questions, summarizing, requesting clarification, and predicting upcoming information. A teacher models the use of

a strategy and then gradually releases responsibility to students to model the same strategy to others in the group.

In the IIP/WMLS-R NU, some additional interventions for spelling include use of multisensory techniques (Carreker, 2005); use of explicit, systematic phonics instruction (National Reading Panel, 2000; Ehri, 1998); direct instruction (Edwards, 2003; Gordon et al., 1993; Graham, 1983); providing frequent practice (Berninger, et al., 1998; Moats, 1995); teaching common irregular words (Moats, 2005); encouraging independent reading (Taylor et al., 1990; Anderson et al., 1985); the Write-Say method (Kearney and Drabman, 2001) the Add-A-Word spelling program (McLaughlin et al., 1991; Schermerhorn & McLaughlin, 1997); and use of group contingencies (Popkin & Skinner, 2003; Shapiro & Goldberg, 1986; Truchlicka et al., 1998).

Additional interventions for improving writing ability include strategies for proofreading (Lanham, 1992; Hillocks & Smith, 1991); peer editing (Stoddard & MacArthur, 1993), and use of technology (MacArthur et al., 2001). For example, proofreading strategies include taking a break after completing the writing before proofreading, reading the work aloud, reading through the work slowly, reading line-by-line covering the other text with a hand or a card, and looking for only one type of error at a time. Another intervention is to have the student circle every punctuation mark in a passage. This forces him or her to look at each punctuation mark and evaluate whether or not it is correct (Lane & Lange, 1993).

## Summary

The *Instructional Interventions Program for the WMLS-R NU* (IIP/WMLS-R NU) was developed to link individualized, evidence-based instructional interventions to language proficiency levels as measured by the WMLS-R NU. The evidence-based instructional interventions included in the program are built on a model of cognitive-academic language proficiency (CALP), meaning that the focus of the interventions is on increasing oral language, reading, and writing competence in academic settings. The CALP model guided the selection of interventions intended to develop the deeper, more complex cognitive and linguistic processes that are involved in academic learning.

The primary interventions included in the IIP/WMLS-R NU are based on several widely respected sources of evidence from studies with English Language Learners (ELLs). Additional interventions are based primarily on evidence from studies with native speakers of English, although some of the additional interventions have been validated for use with both ELLs and native speakers of English. Together, this pool of evidenced-based interventions is intended to help educators articulate an appropriate educational plan for an ELL that will facilitate the development of the oral language, reading and writing skills needed for academic success.



# References

- Anders, P., & Bos, C. (1986). Semantic feature analysis: An interactive strategy for vocabulary development and text comprehension. *Journal of Reading*, 9(7), 610–616.
- Anderson, J. R. (1976). *Language, memory, and thought*. Hillsdale, NJ: Erlbaum.
- Anderson, J. R. (1985). *Cognitive psychology and its implications* (2nd ed.). New York: Freeman.
- Anderson, R. C. (1996). Research foundations to support wide reading. In V. Greaney (Ed.), *Promoting reading in developing countries* (pp. 55–77). Newark, DE: International Reading Association.
- Anderson, R. C., Hiebert, E. H., Scott, J. A., & Wilkinson, I. A. G. (1985). *Becoming a nation of readers: The report of the Commission on Reading*. Washington, DC: The National Institute of Education.
- Anderson, R. C., & Nagy, W. E. (1992). The vocabulary conundrum. *American Educator*, 16, 14–18, 44–47.
- Anderson, R. C., Wilson, P. T., & Fielding, L. G. (1988). Growth in reading and how children spend their time outside of school. *Reading Research Quarterly*, 23, 285–303.
- Anglin, J. M. (1993). Vocabulary development: A morphological analysis. *Monographs of the Society for Research in Child Development*, 58(10, Serial No. 238).
- 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(3), 283–300.
- Ashcraft, M. H. (1995). Cognitive psychology and simple arithmetic: A review and summary of new directions. *Mathematical Cognition*, 1(1), 3–34.
- August, D. (2002). *Transitional programs for English language learners: Contextual factors and effective programming* (Report No. 58). Baltimore: Center for Research on the Education of Students Placed At Risk.
- August, D. (2003). *Supporting the development of English literacy in English language learners: Key issues and promising practices* (Report No. CRESPAR-RN-61). Baltimore: Center for Research on the Education of Students Placed At Risk.
- August, D., Calderón, M., & Carlo, M. (2002). The transfer of skills from Spanish to English: A study of young learners. *National Association for Bilingual Education News*, 1–26.
- August, D., Calderón, M., Carlo, M., & Proctor, P. (2005). Development of literacy in Spanish-speaking English-language learners: Findings from a longitudinal study of elementary school children. *The International Dyslexia Association Quarterly Newsletter*, 31(2), 17–19.
- August, D., Carlo, M., Dressler, C., & Snow, C. (2005). The critical role of vocabulary development for English language learners. *Learning Disabilities: Research & Practice*, 20(1), 50–57.

- August, D., & Shanahan, T. (Eds.). (2006). *Developing literacy in second-language learners: Report of the National Literacy Panel on language-minority children and youth*. Mahwah, NJ: Erlbaum.
- Avila, E., & Sadoski, M. (1996). Exploring new applications of the keyword method to acquire English vocabulary. *Language Learning*, 46(3), 379–395.
- Babbs, P. J. (1984). Monitoring cards help improve comprehension. *The Reading Teacher*, 38(2), 200–204.
- Baker, L. (2004). Reading comprehension and science inquiry: Metacognitive connections. In E. W. Saul (Ed.), *Crossing borders in literacy and science instruction: Perspectives on theory and practice* (pp. 239–257). Newark, DE: International Reading Association; Arlington, VA: National Science Teachers Association Press.
- Baker, S., Simmons, D. C., & Kame'enui, E. J. (1998). Vocabulary acquisition: Research bases. In D. C. Simmons & E. J. Kame'enui (Eds.), *What reading research tells us about children with diverse learning needs: Bases and basics*. Mahwah, NJ: Erlbaum.
- Barton, M. L., Heidama, C., & Jordan, D. (2002). Teaching reading in mathematics and science. *Educational Leadership*, 60(3), 24–28.
- Baumann, J. F., Edwards, E. C., Boland, E. M., Olejnik, S., & Kame'enui, E. (2003). Vocabulary tricks: Effects of instruction in morphology and context on fifth-grade students' ability to derive and infer word meanings. *American Educational Research Journal*, 40(2), 447–494.
- Baumann, J. F., Kame'enui, E. J., & Ash, G. E. (2003). Research on vocabulary instruction: Voltaire redux. In J. Flood, D. Lapp, J. R. Squire, & J. M. Jensen (Eds.), *Handbook on research on teaching the English language arts* (2nd ed., pp. 752–785). Mahwah, NJ: Erlbaum.
- Bean, T. W. (1982). Second language learners' comprehension of an ESL prose selection. *Journal of the Linguistic Association of the Southwest*, 4, 376–386.
- Bear, D. R., Invernizzi, M., Templeton, S., & Johnston, F. (2007) *Words their way with English learners: Word study for phonics, vocabulary, and spelling instruction*. Boston: Merrill Prentice Hall.
- Bear, D. R., Templeton, S., Helman, L. A., & Baren, T. (2002). Orthographic development and learning to read in different languages. In G. G. Garcia (Ed.), *English learners: Reaching the highest level of English literacy* (pp. 71–95). Newark, DE: International Reading Association.
- Beck, I. L., & McKeown, M. G. (2001). Text talk: Capturing the benefits of read-aloud experiences for young children. *The Reading Teacher*, 55, 10–20.
- Beck, I. L., McKeown, M. G., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York: Guilford Press.
- Beck, I. L., Perfetti, C. A., & McKeown, M. G. (1982). Effects of long-term vocabulary instruction on lexical access and reading comprehension. *Journal of Educational Psychology*, 74, 506–520.

- Begeny, J. C., & Martens, B. K. (2006). Assisting low-performing readers with group-based reading fluency instruction. *School Psychology Review*, 35(1), 91–107.
- Berkowitz, S. J. (1986). Effects of instruction in text organization on sixth-grade students' memory for expository reading. *Reading Research Quarterly*, 21, 161–178.
- Bermúdez, A., & Prater, D. (1990). Using brainstorming and clustering with LEP writers to develop elaboration skills. *Teachers of English to Speakers of Other Languages Quarterly*, 24, 523–528.
- Bernhardt, E. (2005). Progress and procrastination in second language reading. *Annual Review of Applied Linguistics*, 25, 133–150.
- Berninger, V., Vaughn, K., Abbott, R., Brooks, A., Abbott, S., Rogan, L., et al. (1998). Early intervention for spelling problems: Teaching functional spelling units of varying size with a multiple-connections framework. *Journal of Educational Psychology*, 90, 587–605.
- Bhattacharya, A., & Ehri, L. (2004). Grapho-syllabic analysis helps adolescent struggling readers read and spell words. *Journal of Learning Disabilities*, 37(4), 331–348.
- Bialystok, E., Luk, G., & Kwan, E. (2005). Bilingualism, biliteracy, and learning to read: Interactions among languages and writing systems. *Scientific Studies of Reading*, 9(1), 43–61.
- Biemiller, A. (2005). Vocabulary development and instruction: A prerequisite for school learning. In D. Dickinson & S. Neuman (Eds.), *Handbook of early literacy research*, (Vol. 2). New York: Guilford Press.
- Blachowicz, C. L. Z., & Fisher, P. (2000). Vocabulary instruction. In R. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of Reading Research* (Vol. 3, pp. 503–523). Mahwah, NJ: Erlbaum.
- Brabham, E. G., & Villaume, S. K. (2001). Building walls of words. *The Reading Teacher*, 54(7).
- Bridge, C. A., Winograd, P. N., & Haley, D. (1983). Using predictable materials versus preprimers to teach beginning sight words. *The Reading Teacher*, 36(9), 884–891.
- Brown, A. L., & Palincsar, A. S. (1985). *Reciprocal teaching of comprehension strategies: A natural history of one program to enhance learning* (Tech. Rep. No. 334). Champaign, IL: University of Illinois at Urbana-Champaign, Center for the Study of Reading.
- Buehl, D. (2001). *Classroom strategies for interactive learning* (2nd ed.). Newark, DE: International Reading Association.
- Calderón, M., Hertz-Lazarowitz, R., & Slavin, R. (1998). Effects of bilingual cooperative integrated reading and composition on students making the transition from Spanish to English reading. *The Elementary School Journal*, 99(2), 153–165.
- Caplan, D. (1992). *Language: Structure, processing, and disorders*. Cambridge, MA: MIT Press.
- Carlisle, J. F. (2004). Morphological processes influencing literacy learning. In C. A. Stone, E. R. Silliman, B. J. Ehren, & K. Apel (Eds.), *Handbook on language and literacy: Development and disorders* (pp. 318–339). New York: Guilford Press.

- Carlisle, J. F., & Stone, C. A. (2005). Exploring the role of morphemes in word reading. *Reading Research Quarterly*, 40(4), 428–449.
- Carlo, M. S., August, D., McLaughlin, B., Snow, C. E., Dressler, C., Lippman, D., et al. (2004). Closing the gap: Addressing the vocabulary needs for English language learners in bilingual and mainstream classrooms. *Reading Research Quarterly*, 39, 188–215.
- Carreker, S. (2005). Teaching spelling. In J. Birsh (Ed.), *Multisensory teaching of basic language skills* (2nd ed., pp. 257–295). Baltimore: Paul H. Brookes.
- Cary, S. (1997). *Second language learners*. Los Angeles: Stenhouse.
- Clark, H. H. (1977). Bridging. In P. N. Johnson-Laird & P. C. Wason (Eds.), *Thinking: Readings in cognitive science* (pp. 411–420). Cambridge: Cambridge University Press.
- Clay, M. M. (1991). *Becoming literate: The construction of inner control*. Portsmouth, NH: Heinemann.
- Collier, V. (1987). Age and rate of acquisition of second language for academic purposes. *Teachers of English to Speakers of Other Languages Quarterly*, 21(3), 617–641.
- Coltheart, M. (1978). Lexical access in simple reading tasks. In B. Underwood (Ed.), *Strategies of Information Processing* (pp. 151–215). London: Academic Press.
- Coxhead, A. (2000). A new academic word list. *TESOL Quarterly*, 34(2), 213–238.
- Crawford, N. (2002). Communicative approaches to second-language acquisition: The bridge to second-language literacy. In G. G. Garcia (Ed.), *English learners: Reaching the highest level of English literacy* (pp. 152–181). Newark, DE: International Reading Association.
- Cunningham, A. E., & Stanovich, K. E. (1991) Tracking the unique effects of print. *Journal of Educational Psychology*, 83, 264–274.
- Cunningham, P. M. (2004). *Phonics they use: Words for reading and writing* (4th ed.). New York: Harper-Collins College Press.
- Cunningham, T. H., & Graham, C. R. (2000). Increasing native English vocabulary recognition through Spanish immersion: Cognate transfer from foreign to first language. *Journal of Educational Psychology*, 92(1), 37–49.
- Cummins, J. (1979). Linguistic interdependence and the educational development of bilingual children. *Review of Educational Research*, 49, 222–251.
- Cummins, J. (1984). *Bilingualism and special education: Issues in assessment and pedagogy*. Austin, TX: Pro-Ed.
- Cummins, J. (2002). Reading and the bilingual student: Fact and fiction. In G. G. Garcia (Ed.), *English learners: Reaching the highest level of English literacy* (pp. 2–33). Newark, DE: International Reading Association.
- Curiel, H., Rosenthal, J. A., & Richeck, H. G. (1986). Impacts of bilingual education on secondary school grades, attendance, retentions and drop-out. *Hispanic Journal of Behavioral Sciences*, 8(4), 357–367.

- Dale, E. (1965). Vocabulary measurement: Techniques and major findings. *Elementary English*, 42, 82–88.
- Davidson, J., Elcock, J., & Noyes, P. (1996). A preliminary study of the effect of computer-assisted practice on reading attainment. *Journal of Research in Reading*, 19(2), 102–110.
- De la Colina, M. G., Parker, R. I., Hasbrouck, J. E., & Lara-Alecia, R. (2001). Intensive intervention in reading fluency for at-risk beginning Spanish readers. *Bilingual Research Journal*, 25, 503–538.
- Denti, L., & Guerin, G. (2004). Confronting the problem of poor literacy: Recognition and action. *Reading & Writing Quarterly*, 20, 133–222.
- Denton, C. A. (2000). *The efficacy of two English reading interventions in a bilingual education program*. Unpublished doctoral dissertation, Texas A&M University, College Station.
- Diamond, L., & Gutlohn, L. (2006). *Vocabulary handbook*. Baltimore: Brookes.
- Doherty, R. W., Hilberg, R. S., Pinal, A., & Tharp, R. (2003, Winter). Five standards and student achievement. *National Association for Bilingual Education Journal of Research and Practice*, 1–24.
- Duran, R. P., O'Connor, C., & Smith, M. (1988). *Methods for assessing reading comprehension skills of language of minority students* (Project 2.2 Technical Report). Los Angeles: University of California, Center for Language Education and Research.
- Durkin, D. (1993). *Teaching them to read* (6th ed.). Boston: Allyn & Bacon.
- Echevarria, J. (1996). The effects of instructional conversations on the language and concept development of Latino students with learning disabilities. *The Bilingual Research Journal*, 20(2), 339–363.
- Echevarria, J., Short, D., & Powers, K. (2006). School reform and standards-based education: How do teachers help English language learners? *Journal of Educational Research*, 95, 1–28.
- Echevarria, J., Vogt, M., & Short, D. J. (2008). *Making content comprehensible for English learners: The SIOP model* (3rd ed.). Boston: Pearson.
- Edwards, L. (2003). Writing instruction in kindergarten: Examining an emerging area of research for children with writing and reading difficulties. *Journal of Learning Disabilities*, 36(2), 136–148.
- Ehri, L. C. (1991). Development of the ability to read words. In R. Barr, M. Kamil, P. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. 2, pp. 383–417). New York: Longman.
- Ehri, L. C. (1998). Learning to read and learning to spell are one and the same, almost. In C. Perfetti, L. Rieben, & M. Fayol (Eds.), *Learning to spell: Research, theory and practice across languages* (pp. 237–269). Mahwah, NJ: Erlbaum.
- Elley, W. B. (1991). Acquiring literacy in a second language: The effect of book-based programs. *Language Learning*, 41, 375–411.

- Farstrup, A. E., & Samuels, S. J. (Eds.). (2002). *What research has to say about reading instruction*. Newark, DE: International Reading Association.
- Fayden, T. (1997). What is the effect of shared reading on rural Native American and Hispanic kindergarten children? *Reading Improvement*, 34(1), 22–30.
- Fernald, G. (1943). *Remedial techniques in basic school subjects*. New York: McGraw-Hill.
- Fitzgerald, J. (1995). English-as-a-second-language learners' cognitive reading processes: A review of research in the United States. *Review of Educational Research*, 65(2), 145–190.
- Frances, D., 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.
- Franken, M., & Haslett, S. J. (1999). Quantifying the effect of peer interaction on second language students' written argument texts. *New Zealand Journal of Educational Studies*, 34, 281–293.
- Galda, L., & Cullinan, B. E. (1991). Literature for literacy: What research says about the benefits of using trade books in the classroom. In J. Flood, J. M. Jensen, D. Lapp, and J. R. Squire (Eds.), *Handbook of research on teaching the English language arts* (pp. 529–535). New York: Macmillan.
- Gambrell, L. B., & Jawitz, P. B. (1993). Mental imagery, text illustrations, and children's story comprehension and recall. *Reading Research Quarterly*, 23, 265–273.
- Garcia, G. E., & Godina, H. (2004). Addressing the literacy needs of adolescent English language learners. In T. Jetton & J. Dole (Eds.), *Adolescent literacy: Research and practice* (pp. 304–320). New York: Guilford Press.
- Garcia, G. G. (Ed.) (2002). *English learners: Reaching the highest level of English literacy*. Newark, DE: International Reading Association.
- Gardill, M. C., & Jitendra, A. K. (1999). Advanced story map instruction: Effects on the reading comprehension of students with learning disabilities. *The Journal of Special Education*, 28, 2–17.
- Gazzaniga, M. S., Irvy, R. B., & Mangun, G. R. (1998). *Cognitive neuroscience: The biology of the mind*. New York: Norton.
- Genesee, F., Lindholm-Leary, K., Saunders, W., & Christian, D. (2006). *Educating English language learners: A synthesis of research evidence*. New York: Cambridge University Press.
- Gentner, D., & Markman, A. B. (1997). Structure mapping in analogy and similarity. *American Psychologist*, 52, 45–56.
- Gernsbacher, M. A. (1990). *Language comprehension as structure building*. Hillsdale, NJ: Erlbaum.
- Gernsbacher, M. A. (1991). Cognitive processes and mechanisms in language comprehension: The structure building framework. In G. H. Bower (Ed.), *The psychology of learning and motivation* (Vol. 27, pp. 217–263). New York: Academic Press.

- Gernsbacher, M. A. (1997). Two decades of structure building. *Discourse Processes*, 23, 265–304.
- Gersten, R., Baker, S. K., Shanahan, T., Linan-Thompson, S., Collins, P., & Scarcella, R. (2007). *Effective literacy and English language instruction for English learners in the elementary grades: A Practice Guide* (NCEE 2007–4011). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U. S. Department of Education. Retrieved from <http://ies.ed.gov/ncee/wwc/practiceguides>.
- Gersten, R., Fuchs, L. S., Williams, J. P., & Baker, S. (2001). Teaching reading comprehension strategies to students with learning disabilities: A review of the research. *Review of Educational Research*, 71, 279–320.
- Gibson, E. J. (1965) Learning to read. *Science*, 148, 1066–1072.
- Goldenberg, C. (1992). Instructional conversations: Promoting comprehension through discussion. *The Reading Teacher*, 46, 316–326.
- Gómez, R., Jr., Parker, R., Lara-Alecio, R., & Gómez, L. (1996). Process versus product writing with limited English proficient students. *Bilingual Research Journal*, 20, 209–233.
- Gonzalez, N., Moll, L. C., Floyd-Tenery, M., Rivera, A., Rendon, P., Gonzalez, R., & Amanti, C. (1993). *Teacher research on funds of knowledge: Learning from households* (Educational Practice Report 6). Washington, DC: National Center for Research on Cultural Diversity and Second Language Learning.
- Gordon, J., Vaughn, S., & Schumm, S. (1993). Spelling interventions: A review of literature and implications for instruction for students with learning disabilities. *Learning Disabilities and Research*, 8, 175–181.
- Graham, S. (1983). Effective spelling instruction. *Elementary School Journal*, 83, 560–567.
- Graves, M. F. (1986). Vocabulary learning and instruction. In E. Z. Rothkopf (Ed.), *Review of research in education* (Vol. 13, pp. 49–90). Washington, DC: American Educational Research Association.
- Graves, M. F. (2000). A vocabulary program to complement and bolster a middle-grade comprehension program. In B. M. Taylor, M. F. Graves, & P. Van Den Broek (Eds.), *Reading for meaning: Fostering comprehension in the middle grades*. New York: Teachers College Press; Newark, DE: International Reading Association.
- Graves, M. F. (2006). *The vocabulary book: Learning and instruction*. New York: Teachers College, Columbia University.
- Graves, M. F., & Fitzgerald, J. (2002). Scaffolding reading experiences for multilingual classrooms. In G. G. Garcia (Ed.), *English learners: Reaching the highest level of English literacy* (pp. 96–124). Newark, DE: International Reading Association.
- Graves, M. F., & Fitzgerald, J. (2006). Effective vocabulary instruction for English-language learners. In C. C. Block & J. N. Mangieri (Eds.), *The vocabulary-enriched classroom: Practice for improving the reading performance of all students in grades 3 and up*. New York: Scholastic.
- Graves, M. F., Juel, C., & Graves, B. B. (2004). *Teaching reading in the 21st century* (3rd ed.). Boston: Allyn & Bacon.

- Graves, M. F., & Watts-Taffe, S. (2002). The role of word consciousness in a research-based vocabulary program. In A. Farstrup & S. J. Samuels (Eds.), *What research has to say about reading instruction* (pp. 140–165). Newark, DE: International Reading Association.
- Gumperz, J., Cook-Gumperz, J., & Szymanski, M. (1999). *Collaborative practices in bilingual cooperative learning classrooms* (Research Report No. 7). Santa Cruz, CA, and Washington, DC: Center for Research on Education, Diversity and Excellence.
- 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. *Journal of Special Education, 34*, 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. *Journal of Special Education, 36*, 69–79.
- Hardiman, M. M. (2003). *Connecting brain research with effective teaching*. Lanham, MD: Rowman & Littlefield Education.
- Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore: Paul H. Brookes.
- Herman, P. A., Anderson, R. C., Pearson, P. D., & Nagy, W. E. (1987). Incidental acquisition of word meanings from expositions with varied text features. *Reading Research Quarterly, 23*, 263–284.
- Hernández, J. S. (1991). Assisted performance in reading comprehension strategies with non-English proficient students. *Journal of Educational Issues of Language Minority Students, 8*, 91–112.
- Hillocks, G., Jr., & Smith, M. W. (1991). Grammar and usage. In J. Flood, J. M. Jensen, D. Lapp, & J. R. Squire (Eds.), *Handbook of research on teaching the English language arts* (pp. 591–603). New York: Macmillan.
- Hornberger, N. (Ed.). (2003). *Continua of biliteracy: An ecological framework for educational policy, research, and practice in multilingual settings*. Clevedon, UK: Multilingual Matters.
- Hotopf, W. H. N. (1980). Slips of the pen. In U. Frith (Ed.), *Cognitive processes in spelling* (pp. 287–309). London: Academic Press.
- Hudelson, S. (1994). Literacy development of second language children. In F. Genesee (Ed.), *Educating second language children* (pp. 129–158). New York: Cambridge University Press.
- Humphreys, G. W., & Evett, J. L. (1985) Are there independent lexical and nonlexical routes in word processing? An evaluation of the dual-route theory of reading. *The Behavioral and Brain Sciences, 8*, 689–740.
- Jimenez, R., Garcia, G. E., & Pearson, P. D. (1996). The reading strategies of bilingual Latina/o students who are successful English readers: Opportunities and obstacles. *Reading Research Quarterly, 31*(1), 90–112.
- Johnson, D. D. & Pearson, P. D. (1984). *Teaching reading vocabulary*. New York: Holt, Rinehart and Winston.



- Kamil, M. L. (2004). Vocabulary and comprehension instruction: Summary and implications of the National Reading Panel finding. In P. McCardle & V. Chhabra (Eds.), *The voice of evidence in reading research*. Baltimore: Paul H. Brookes.
- Kearney, C. A., & Drabman, R. S. (2001). The write-say method for improving spelling accuracy in children with learning disabilities. *Journal of Learning Disabilities*, 26, 52–56.
- Kim, H. S., & Kamil, M. L. (2004). Adolescents, computer technology, and literacy. In T. L. Jetton & J. A. Dole (Eds.), *Adolescent literacy research and practice* (pp. 351–368). New York: Guilford Press.
- Kintsch, W. (1974). *The representation of meaning in memory*. Hillsdale, NJ: Erlbaum.
- Klin, C. M. (1995). Causal inferences in reading: From immediate activation to long-term memory. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 21, 1483–1494.
- Klingner, J., & 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.
- Klingner, J. K., & Vaughn, S. (1998, July/August). Using collaborative strategic reading. *Teaching Exceptional Children*, 30(6), 32–37.
- Klingner, J., & Vaughn, S. (2000). The helping behaviors of fifth graders while using collaborative strategic reading during ESL content classes. *Teachers of English to Speakers of Other Languages Quarterly*, 31(1), 69–98.
- Kramer, V. R., Schell, L. M., & Rubison, R. M. (1983). Auditory discrimination training in English of Spanish-speaking children. *Reading Improvement*, 30, 162–168.
- Krashen, S. (1996). A gradual exit, variable threshold model for limited-English-proficient children. *National Association for Bilingual Education News*, 19(7), 1, 15–17.
- Krashen, S. (2002). Three roles for reading for minority-language children. In G. G. Garcia (Ed.) *English learners: Reaching the highest level of English literacy* (pp. 55–70). Newark, DE: International Reading Association.
- Lane, J., & Lange, E. (1993). *Writing clearly: An editing guide*. Boston: Heinle & Heinle.
- Lanham, R. (1992). *Revising Prose* (3rd ed.). New York: Macmillan.
- Leung, C., & Pikulski, J. J. (1990). Incidental word learning of kindergarten and first grade children through repeated read aloud events. In J. Zutell & S. McCormick (Eds.), *Literacy, theory and research: Analyses from multiple paradigms*. Chicago: National Reading Conference.
- Levin, J. R., Levin, M. E., Glasman, L. D., & Nordwall, M. B. (1992). Mnemonic vocabulary instruction: Additional effectiveness evidence. *Contemporary Educational Psychology*, 17, 156–174.
- Levy, B. A., Abello, B., & Lysynchuk, L. (1997). Transfer from word training to reading in context: Gains in reading fluency and comprehension. *Learning Disabilities Quarterly*, 20, 174–188.

- Lindholm, K., & Aclan, Z. (1991). Bilingual proficiency as a bridge to academic achievement: Results from bilingual/immersion programs. *Journal of Education*, 173(2), 99–113.
- MacArthur, C. A., Ferretti, R. P., Okolo, C. M., & Cavalier, A. R. (2001). Technology applications for students with literacy problems: A critical review. *The Elementary School Journal*, 101, 273–378.
- Marr, D. (1982). *Vision: A computational investigation into the human representation and processing of visual information*. San Francisco: Freeman.
- Marzano, R. (2004). *Building background knowledge for academic achievement*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Marzano, R. J., Pinkering, D. J., & Pollock, J. E. (2001). *Classroom instruction that works*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Mastropieri, M. A., Leinart, A., & Scruggs, T. E. (1999). Strategies to increase reading fluency. *Intervention in School and Clinic*, 34, 278–283.
- Mastropieri, M. A., & Scruggs, T. E. (1998). Enhancing school success with mnemonic strategies. *Intervention in School and Clinic*, 33, 201–208.
- McClelland, J. L., & Rumelhart, D. E. (1981). An interactive activation model of context effects in letter perception: Part 1. An account of basic findings. *Psychological Review*, 88, 375–407.
- McCoy, K. M., & Prehm, H. J. (1987). *Teaching mainstreamed students methods and techniques*. Denver, CO: Love Publishing.
- McLaughlin, B., August, D., Snow, C. E., Carlo, M., Dressler, C., White, C., Lively, T., & Lippman, D. (2000). *Vocabulary improvement and reading in English language learners: An intervention study*. Proceedings of a Research Symposium on High Standards in Reading for Students from Diverse Language Groups. Washington, DC: U.S. Department of Education.
- McLaughlin, T. F., Reiter, S. M., Mabee, W. S., & Byram, B. J. (1991). An analysis and replication of the Add-A-Word spelling program with mildly handicapped middle school students. *Journal of Behavior Education*, 1, 413–426.
- Meyer, M. S., & Felton, R. H. (1999). Repeated reading to enhance fluency: Old approaches and new directions. *Annals of Dyslexia*, 49, 283–306.
- Miller, G. A. (1956). The magical number seven, plus or minus two: Some limits on our capacity for processing information. *Psychological Review*, 63, 81–87.
- Moats, L. C. (1995). *Spelling: Development, disability, and instruction*. Timonium, MD: York Press.
- Moats, L. C. (2001). Overcoming the language gap. *American Educator*, 25, 5, 8–9.
- Moats, L. C. (2005). How spelling supports reading. *American Educator*, 2005–06 Winter, 12–43.

- Moje, E. B., Ciechanowski, K. M., Kramer, K., Ellis, L., Carrillo, R., & Collazo, T. (2004). Working toward third space in content area literacy: An examination of everyday funds of knowledge and discourse. *Reading Research Quarterly*, 39(1), 38–69.
- Nagy, W. E., & Scott, J. A. (2000). Vocabulary processes. In M. L. Kamil, P. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (Vol. 3, pp. 269–284). Mahwah, NJ: Erlbaum.
- National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction* (NIH Publication No. 00–4754). Washington, DC: National Institute of Child Health and Human Development.
- Ogle, D. M. (1986). K-W-L: A teaching model that develops active reading of expository text. *The Reading Teacher*, 39(6), 564–570.
- Orellana, M. F., Reynolds, J., Dorner, L., & Meza, M. (2003). In other words: Translating or “para-phrasing” as a family literacy practice in immigrant households. *Reading Research Quarterly*, 38(1), 12–34.
- O’Shea, L. J., Sindelar, P. T., & O’Shea, D. J. (1985). The effects of repeated readings and attentional cues on the reading fluency and comprehension of learning disabled readers. *Learning Disabilities Research*, 2, 103–109.
- 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. S., & Brown, A. L. (1984). Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition and Instruction*, 2, 117–175.
- Palincsar, A. S., & Brown, A. L. (1985). *Reciprocal teaching of comprehension strategies: A natural history of one program for enhancing learning* (Technical Report No. 334). Urbana, IL: University of Illinois Center for the Study of Reading.
- Paris, S. G., Cross, D. R., & Lipson, M. Y. (1984). Informed strategies for learning: A program to improve children’s reading awareness and comprehension. *Journal of Educational Psychology*, 76, 1239–1252.
- Perez, E. (1981). Oral language competence improves reading skills of Mexican American third graders. *The Reading Teacher*, 35, 24–27
- Peters, E. E., & Levin, J. R. (1986). Effects of a mnemonic imagery on good and poor readers’ prose recall. *Reading Research Quarterly*, 21, 179–192.
- Pittelman, S. D., Heimlich, J. E., Berglund, R. L., & French, M. P. (1991). *Semantic feature analysis: Classroom applications*. Newark, DE: International Reading Association.
- Popkin, J., & Skinner, C. H. (2003). Enhancing academic performance in a classroom serving students with serious emotional disturbance: Interdependent group contingencies with randomly selected components. *School Psychology Review*, 32, 282–295.
- Prater, D. L., & Bermúdez, A. B. (1993). Using peer response groups with limited English proficient writers. *Bilingual Research Journal*, 17, 99–116.

- Rashotte, C. A., & Torgeson, J. K. (1985). Repeated reading and reading fluency in learning disabled children. *Reading Research Quarterly*, 20, 180–188.
- Riches, C., & Genesee, F. (2006). Literacy: Crosslinguistic & crossmodal issues. In F. Genesee, K. Lindholm-Leary, W. Saunders, & D. Christian (Eds.), *Educating English language learners: A synthesis of research evidence*. New York: Cambridge University Press.
- Rousseau, M. K., Tam, B. K. Y., & Ramnarain, R. (1993). Increasing reading proficiency of language-minority students with speech and language impairment. *Education and Treatment of Children*, 16, 254–271.
- Ruddell, R. B. (2005) *Teaching children to read and write*. Boston: Allyn & Bacon.
- Samuels, S. J. (1979). The method of repeated readings. *The Reading Teacher*, 32, 403–408.
- Samuels, S. J. (1985). Automaticity and repeated reading. In J. Osborn, P. T. Wilson, & R. C. Anderson (Eds.), *Reading education: Foundations of a literate America* (pp. 215–230). Lexington, MA: Lexington Books.
- Saunders, W., & Goldenberg, C. (1999). The effects of instructional conversations and literature logs on the story comprehension and thematic understanding of English proficient and limited English proficient students. *The Elementary School Journal*, 99(4), 277–301.
- Schermerhorn, P. K., & McLaughlin, T. F. (1997). Effects of the Add-A-Word spelling program on test accuracy, grades, and retention of spelling words with fifth and sixth grade regular education students. *Child and Family Behavior Therapy*, 19, 23–36.
- Schleppegrell, M., Achugar, M., & Orteíza, T. (2004). The grammar of history: Enhancing content-based instruction through a functional focus on language. *Teachers of English to Speakers of Other Languages Quarterly*, 38(1), 67–93.
- Schon, I., Hopkins, K. D., & Davis, W. A. (1982). The effects of books in Spanish and free reading time on Hispanic students' reading abilities and attitudes. *The Journal for the National Association for the National Association for Bilingual Education*, 7, 13–20.
- Schon, I., Hopkins, K. D., & Vojir, C. (1984). The effects of Spanish reading emphasis on the English and Spanish reading abilities of Hispanic high school students. *The Bilingual Review*, 11, 33–39.
- Schon, I., Hopkins, K. D., & Vojir, C. (1985). The effects of special reading time in Spanish on the reading abilities and attitudes of Hispanic junior high school students. *The Journal of Psycholinguistic Research*, 14, 57–65.
- Schrank, F. A., Alvarado, C. G., Wendling, B. J., & Woodcock, R. W. (2009). Instructional interventions program for the *Woodcock-Muñoz Language Survey–Revised Normative Update* [Computer software]. Rolling Meadows, IL: Riverside Publishing.
- Schumaker, J. B., Deshler, D. D., Alley, G. R., Warner, M. M., & Denton, P. H. (1982). Multipass: A learning strategy for improving reading comprehension. *Learning Disability Quarterly*, 5, 295–304.
- Sengupta, S. (2000). An investigation into the effects of revision strategy instruction on the L2 secondary school learners. *System*, 28, 97–113.

- Shames, R. (1998). *The effects of a community language learning/comprehension processing strategies model on second language reading comprehension*. Unpublished doctoral dissertation, Florida Atlantic University, Boca Raton, FL.
- Shany, M. T., & Biemiller, A. (1995). Assisted reading practice: Effects on performance for poor readers in grades 3 and 4. *Reading Research Quarterly*, 30, 382–395.
- Shapiro, E. S., & Goldberg, R. (1986). A comparison of group contingencies for increasing spelling performance among sixth grade students. *School Psychology Review*, 15, 546–557.
- Short, D. (1999). Integrating language and content for effective sheltered instruction programs. In C. Faltis & P. Wolfe (Eds.), *So much to say: Adolescents, bilingualism, and ESL in the secondary school* (pp. 105–137). New York: Teachers College Press.
- Short, D., & Fitzsimmons, D. (2007). *Double the word: Challenges and solutions to acquiring language and academic literacy for adolescent English language learners—A report to Carnegie Corporation of New York*. Washington, DC: Alliance for Excellent Education.
- Sinatra, R. C., Berg, D., & Dunn, R. (1985). Semantic mapping improves reading comprehension of learning disabled students. *Teaching Exceptional Children*, 17(4), 310–314.
- Snow, C. E., Burns, M. S., and Griffin, P. (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.
- Stahl, S. A. (1999). *Vocabulary development*. Cambridge, MA: Brookline Books.
- Stahl, S. A. (2005). Four problems with teaching word meanings (And what to do to make vocabulary an integral part of instruction). In E. H. Hiebert & M. L. Kamil (Eds.), *Teaching and learning vocabulary: Bringing research to practice*. Mahwah, NJ: Erlbaum.
- Stahl, S. A., & Nagy, W. (2006). *Teaching word meanings*. Mahwah, NJ: Erlbaum.
- Stoddard, B. & MacArthur, C. A. (1993). A peer editor strategy: Guiding learning-disabled students in response and revision. *Research in the Teaching of English*, 27, 76–103.
- Swicegood, M. A. (1990). *The effects of metacognitive reading strategy training on the reading performance and student reading analysis strategies of third grade Spanish-dominant students*. Unpublished doctoral dissertation, Texas A&M University, College Station, TX.
- Taylor, B. M., Frye, B. J., & Maruyama, G. M. (1990). Time spent reading and reading growth. *American Educational Research Journal*, 27(2), 351–362.
- Templeton, S., & Bear, D. (Eds.) (1992). *Development of orthographic knowledge and the foundations of literacy*. Hillsdale, NJ: Erlbaum.
- Tharp, R., Estrada, P., Dalton, S., & Yamauchi, L., (2000). *Teaching transformed: Achieving excellence, fairness, inclusion and harmony*. Boulder, CO: Westview Press.
- Theobald, N. A. (2003, September). Bilingual education: Cause or cure? Paper presented at the annual meeting of the American Political Science Association, Philadelphia.
- Thomas, W. P., & Collier, V. P. (2001). *A national study of school effectiveness for language minority students' long-term academic achievement*. U. S. Department of Education Office of Educational Research and Improvement: Center for Research on Education, Diversity & Excellence.

- Tierney, R. J., & Shanahan, T. (1991). Research on the reading-writing relationship: Interactions, transactions and outcomes. In R. Barr, M. L. Kamil, P. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (pp. 246–280). New York: Longman.
- Trabasso, T., & Bouchard, E. (2002). Teaching Readers How to Comprehend Text Strategically. In C. C. Block & M. Pressley (Eds.). *Comprehension instruction: Research-based best practices* (pp. 176–200). New York: Guilford Press.
- Truchlicka, M., McLaughlin, T. F., & Swain, J. C. (1998). Effects of token reinforcement and response cost on the accuracy of spelling performance with middle-school special education students with behavior disorders. *Behavioral Interventions*, *13*, 1–10.
- Tsang, W. K. (1996). Comparing the effects of reading and writing on writing performance. *Applied Linguistics*, *17*, 210–233.
- Tudor, I., & Hafiz, F. (1989). Extensive reading as a means of input to L2 learning. *Journal of Research in Reading*, *12*, 164–178.
- Ulanoff, S. H., & Pucci, S. L. (1999). Learning words from books: The effects of read-aloud on second language vocabulary acquisition. *Bilingual Research Journal*, *23*(4), 409–422.
- Valdés, G., (1999). Incipient bilingualism and the development of English language writing abilities in the secondary school. In C. J. Faltis & P. Wolfe (Eds.), *So much to say: Adolescents, bilingualism, and ESL in the secondary school* (pp. 138–175). New York: Teachers College Press.
- Vaughn-Shavuo, F. (1990). *Using story grammar and language experience for improving recall and comprehension in the teaching of ESL to Spanish-dominant first-graders*. Unpublished doctoral dissertation, Hofstra University, Hempstead, Long Island, NY.
- Villasenor, J. A. (2003). *Contrastive rhetoric and standardized writing assessment: The experiences of non-native speakers of English in a secondary setting*. Unpublished doctoral dissertation, Kent State University, Kent, OH.
- Warschauer, M., Grant, D., Del Real, G., & Rousseau, M. (2004). Promoting academic literacy with technology: Successful laptop programs in K–12 schools. *System*, *32*, 525–537.
- Wong, B. Y. L., Harris, K. R., Butler, D. L., & Graham, S. (2003). Cognitive strategy instruction. *Handbook on Research in Learning Disabilities* (pp. 383–402). New York: Guilford Press.
- Wong, B. Y. L., & Jones, W. (1982). Increasing metacomprehension in learning disabled and normally achieving students through self-questioning training. *Learning Disability Quarterly*, *5*, 228–240.
- Woodcock, R. W., Muñoz-Sandoval, A. F., Ruef, M. L., & Alvarado, C. G. (2005, 2009). *Woodcock-Muñoz Language Survey–Revised*. Rolling Meadows, IL: Riverside Publishing.
- Zhou, R., & Black, I. B. (2000). Development of neural maps: Molecular mechanisms. In M. S. Gazzaniga (Ed.), *The new cognitive neurosciences* (2nd ed., pp. 213–221). Cambridge, MA: MIT Press.

# Appendix A

## Sample Comprehensive Report

## COMPREHENSIVE REPORT OF LANGUAGE PROFICIENCY TESTING

Name: Garcia, Pablo  
 Date of Birth: 09/17/2001  
 Country of Birth: Mexico  
 Age: 7 years, 9 months  
 Sex: M  
 Dates of Testing:  
     06/05/2009 (English)  
     06/05/2009 (Spanish)

School: Friendship Elementary  
 Grade: 2.9  
 Examiners:  
     Fredrick A. Schrank  
     Cris Alvarado

### TESTS ADMINISTERED

Pablo was administered a set of tests from the *Woodcock-Muñoz Language Survey–Revised, Normative Update* (WMLS-R NU) English Form A and Spanish Form.

### LANGUAGE EXPOSURE AND USE QUESTIONNAIRE

Pablo has been in this country for 6 months. He was born in Mexico.

Pablo’s first language is Spanish. At home, he speaks Spanish. Others in his home speak Spanish. In informal social situations, Pablo speaks Spanish. In the classroom, Pablo speaks English about 75% of the time and Spanish about 25% of the time. He has been exposed to academic instruction in English at school for 1 month.

### TEST SESSION OBSERVATIONS

Pablo’s conversational proficiency seemed very limited for his grade level. He was cooperative throughout the examination; his activity level seemed typical for his grade. During the examination, he seemed attentive to the tasks, but at times he appeared tense or worried. He responded very slowly and hesitantly to test questions. He generally persisted with difficult tasks.

### ENGLISH LANGUAGE PROFICIENCY TESTING

*Woodcock-Muñoz Language Survey–Revised, Normative Update, English Form A*  
 Norms based on grade 2.9

### TABLE OF SCORES

Test/CLUSTER	W	GE	CALP Level	RPI	PR	SS (68% Band)	AE
Picture Vocabulary	473	K.4	-	57/90	12	82 (77-88)	5-9
Verbal Analogies	466	K.8	-	42/90	8	78 (73-84)	6-1
Letter-Word Identification	364	K.4	-	0/90	<0.1	52 (48-55)	5-8
Dictation	377	<1.2	-	0/90	<0.1	24 (17-30)	<6-6
Understanding Directions	463	<K.0	-	32/90	0.4	60 (53-66)	5-0
Story Recall	485	<K.0	-	73/90	1	67 (55-79)	4-6
Passage Comprehension	403	<K.4	-	0/90	<0.1	34 (25-42)	<5-8
Test/CLUSTER	W	GE	CALP Level	RPI	PR	SS (68% Band)	AE



ORAL LANGUAGE	469	K.7	limited	50/90	9	80 (76-83)	5-11
ORAL LANGUAGE-TOTAL	472	K.2	limited	51/90	3	71 (67-75)	5-6
READING-WRITING	370	<K.0	negligible	0/90	<0.1	38 (35-41)	5-2
BROAD ENG ABIL	420	K.1	negligible	1/90	<0.1	33 (30-37)	5-4
BROAD ENG ABIL-TTL	433	<K.0	negligible	2/90	<0.1	40 (37-43)	5-3
LISTENING	465	K.3	limited	37/90	2	70 (65-74)	5-7
ORAL EXPRESSION	479	K.0	limited	65/90	6	77 (72-82)	5-4
READING	383	K.3	negligible	0/90	<0.1	38 (34-42)	5-7
WRITING	377	<K.0	negligible	0/90	<0.1	24 (17-30)	4-7
LANGUAGE COMP	444	<K.0	v limited	5/90	<0.1	37 (29-45)	5-0
APP LANG PROF	432	<K.0	negligible	2/90	<0.1	30 (26-35)	4-9

*Oral Language–Total* is a broad measure of language competency, including listening and speaking skills, language development, verbal reasoning, and language comprehension. Pablo demonstrated limited English oral language ability (Level 3). His performance is comparable to that of the average student in grade K.2. The point at which Pablo will find English oral language tasks quite easy is below the median for students in grade K.0. Similar tasks above the grade 1.5 level will be quite difficult for him.

*Broad English Ability–Total* is a broad sample of listening, speaking, reading, and writing skills, including language comprehension abilities. Pablo demonstrated negligible broad English ability (Level 1). His performance is below the median for students in grade K.0. Broad language tasks above the grade K.6 level will be quite difficult for Pablo. However, inspection of his test scores shows significant variability in language performance. Performance on the writing test was significantly lower than performance on the vocabulary test.

*Listening* (primarily receptive language skills) measures listening ability, comprehension, and linguistic competency. Pablo demonstrated limited listening ability in English (Level 3). His performance is comparable to that of the average student in grade K.3. The point at which Pablo will find listening tasks quite easy is below the median for students in grade K.0. Similar tasks above the grade 1.2 level will be quite difficult for him.

*Oral Expression* (primarily expressive language skills) measures expressive vocabulary, language comprehension and development, and meaningful memory. Pablo demonstrated limited English oral expression ability (Level 3). His performance is comparable to that of the average student in grade K.0. The point at which Pablo will find English oral expression tasks quite easy is below the median for students in grade K.0. Similar tasks above the grade 2.0 level will be quite difficult for him.

*Reading* measures letter and word identification skills and the ability to comprehend written passages while reading. Pablo demonstrated negligible English reading ability (Level 1). His performance is comparable to that of the average student in grade K.3. The point at which Pablo will find English reading tasks quite easy is below the median for students in grade K.0. Similar tasks above the grade K.6 level will be quite difficult for him.

*Writing* measures spelling, punctuation, capitalization, and word usage. Pablo demonstrated negligible English writing ability (Level 1). His performance is below the median for students in grade K.0.

*Language Comprehension* is a combined measure of listening and reading comprehension abilities. Pablo demonstrated very limited English language comprehension (Level 2). His performance is below the median for students in grade K.0. Language comprehension tasks above the grade K.6 level will be quite difficult for Pablo.

*Applied Language Proficiency* is an index of the proficiency with which Pablo can effectively apply listening, speaking, reading, writing, and comprehension abilities. Pablo's ability to apply language skills in English is negligible (Level 1). His applied language proficiency is below the median for students in grade K.0. Applied language tasks above the grade K.2 level will be quite difficult for Pablo. However, inspection of his test scores shows significant variability in performance. Performance on the writing test was significantly lower than performance on the Story Recall test.

#### SUMMARY OF ENGLISH LANGUAGE PROFICIENCY

When compared to others at his grade level, Pablo's Listening and Oral Expression skills are limited (Level 3). His Language Comprehension skills are very limited (Level 2). His Writing and Reading skills are negligible (Level 1).

Overall, Pablo's *Oral Language–Total* skills are limited (Level 3). His *Applied Language Proficiency* (the ability to apply listening, speaking, reading, writing, and comprehension abilities in English) is negligible (Level 1). His *Reading-Writing* skills are negligible (Level 1). Pablo's *Broad English Ability–Total* is negligible (Level 1).

#### INSTRUCTIONAL RECOMMENDATIONS & INTERVENTIONS BASED ON ASSESSMENT IN ENGLISH

Pablo is a second language learner who is developing his oral language proficiency in English. Daily oral English language instruction may be beneficial until Pablo achieves sufficient proficiency in English for academic purposes.

Pablo will probably benefit the most from oral language instruction that is presented within the early to late kindergarten range.

Pablo may benefit from phonemic awareness instruction, including the particular English-language phonemes and combinations of phonemes that are not present in Spanish, such as “sh.”

Oral language instruction should be closely linked to real-life experiences. Relevant content- or theme-based instructional modules will provide Pablo with a foundation for oral language development in English.

Pablo may require explicit instruction in basic vocabulary words. Use an English Language Learner basic word list or a basic vocabulary word list (such as the Dale-Chall list of basic vocabulary words) to select target words for Pablo. On a weekly basis, conduct a short self-assessment activity with Pablo. First, preselect a number of words for each assessment activity, perhaps 25 to 50 words per session. Intentionally target the words that likely will be used in the classroom. During the assessment, read each word to Pablo, asking him to rate his knowledge of the word using the following system:

- (1) I have never heard the word before—holds up one finger
- (2) I have heard the word before—holds up two fingers
- (3) I think I know what the word means—holds up three fingers
- (4) I know what the word means—holds up four fingers.

Check off each word as it is read to Pablo. Record the 1, 2, 3, or 4 after the word on the list. Develop and implement an instructional plan for teaching any word rated with a 1 or 2 (target words for instruction). Teach Pablo at least two new words each day. Reinforce words rated 3 through repeated exposures of the word in different contexts (oral discourse, reading, and writing assignments). Select reading materials that use the vocabulary words that were explicitly taught. Repeat the assessment activity weekly with newly selected words. Periodically review words that were taught explicitly.

Use an academic word list to select important words to increase Pablo’s vocabulary for academic purposes. Pablo’s teacher should deliberately use the selected words in classroom instruction or conversation, linking the vocabulary to classroom content objectives. Words learned from this list will reinforce the meanings of many related English words.

Key vocabulary words should be previewed and contextualized with Pablo prior to formally introducing them in a lesson. This requires introducing key terms before a lesson is taught so that Pablo will have an understanding of the term before it is used in the context of the lesson. Define each word in terms that Pablo can understand. A limited number of words should be included in each activity, and the words selected should be the key words needed for an upcoming lesson. Review of the vocabulary words after an instructional activity may also increase vocabulary development.

Pablo may benefit from clear instructions, presented in a step-by-step manner, for assignments and class activities. Demonstrations or modeling of task requirements may also be helpful. Oral directions for assignments should be accompanied by written directions so that Pablo may refer to them at a later time.

As Pablo encounters new English words or phrases, make a note of the vocabulary and deliberately present the word or phrase at different times and contexts. Pablo likely will need to encounter the word or phrase about 12 to 15 times before he knows it well enough to be part of his lexicon.

Provide Pablo with frequent opportunities to engage in structured, supported, academic discussions.

Academic instruction in Spanish may be beneficial for Pablo. Second language learners, such as Pablo, who develop a strong foundation of oral and literacy skills in their native language often experience increased success in English oral language, reading, and writing. Maintaining and developing Pablo's native language skills while adding English skills (an additive learning environment) allows Pablo to have immediate, full, and sustained access to the core curriculum through first language instruction while he develops English language skills. Development of proficiency in English as a second language is a lengthy process that typically takes 5 to 7 years for many children. Providing access to the core curriculum in Spanish while Pablo is learning English may facilitate his academic growth.

Organizing Pablo's vocabulary instruction by theme allows for repetition of vocabulary and may facilitate learning. For example, Pablo's teacher might use "apples" as a theme in reading, math, and science. Pablo might be taught the vocabulary *apple*, *core*, *seeds*, *stem*, *half*, and *quarter*. As Pablo's teacher reads stories about apples aloud, the teacher could also use apples to explain the concepts of half and quarter or use the seeds of apples to explain plant and tree growth.

Model good pronunciation, grammar, and word usage for Pablo. When Pablo makes a pronunciation, grammar, or usage error, reaffirm Pablo's idea(s) and then say the mispronounced or misused word correctly and in context.

Knowledge of words, their meanings, and the ability to reason using words is important for comprehension and problem solving. Actively involving Pablo in vocabulary-rich learning activities may increase Pablo's level of word knowledge.

Reading aloud to Pablo is a helpful activity for vocabulary development. Select books that include new vocabulary words for Pablo. While reading, pause and explain any words that may negatively affect comprehension. After reading the books, discuss the new words and their meanings more fully.

Develop word consciousness in Pablo by playing with words and stimulating his interest in words, their meanings, and their origins. Word games can provide enjoyment and motivation. For example, provide Pablo with a word and ask him to list all of the words he can think of with a similar meaning (e.g., synonyms). Or, provide Pablo with a series of words on cards and two categories like transportation and foods. Pablo files the word cards into the appropriate category.

Pablo may benefit from a rich environment that provides numerous opportunities and exposure to language. Opportunities for role playing, sharing time, and hands-on activities with new, interesting vocabulary may help Pablo acquire new vocabulary and incorporate these words into his speaking vocabulary. Provide frequent exposure and practice with new words.

Use text talks to engage Pablo in a dialogue about a story that was read and the names of things (objects) in the story. Make connections between new words and known words and experiences already known. Explain the meanings of new words by paraphrasing using known words.

Encourage parents to discuss with Pablo events that occurred during the day and to ask and answer questions.

Incidental word learning through reading will depend on the amount of time Pablo spends reading. Reading for different purposes will expose Pablo to new vocabulary, idioms, sentence structure, sentence openers, and sentence length.

Explicit teaching of specific words and names of things (objects) may improve Pablo's vocabulary. This type of instruction may help Pablo to develop knowledge of high-utility words and key vocabulary. Provide opportunities to use new words in a variety of contexts; provide repeated and multiple exposures to new words.

Provide opportunities for Pablo to practice listening and following directions. Play games such as "Simon Says" or "Follow the Leader" to help develop listening skills. Pablo's motor response can demonstrate whether he is following the directions. Another activity is to have Pablo draw a picture following oral directions. For example, the teacher might say, "Draw a house on your paper. Draw a tree next to the house." Gradually increase the difficulty of the directions. Another example of a game to increase Pablo's language comprehension is a "yes-no" game. Ask Pablo a variety of questions that can be answered yes or no.

Ask Pablo to repeat words, phrases, or sentences. As Pablo demonstrates success, increase the number of words presented or the sentence length. Using games, such as "I Went to the Market," may help develop Pablo's ability to listen and remember. The adult starts the game by saying, "I went to the market and got (insert one or two items, e.g., milk)." Then Pablo repeats what was stated and adds an item to the list. Alternate turns back and forth until someone makes a mistake.

Barrier games are a motivating way to practice listening, following directions, or giving directions. A barrier is placed between two people. One person gives directions, and the other person follows the instructions. Tasks may include drawing pictures or designs, building objects, writing information, or finding a location on a map. Roles can then be reversed so both people get practice giving and receiving directions.

Modifying the listening environment may help Pablo to understand and follow directions. Provide preferential seating; a quiet, structured study area; and more time for Pablo to respond.

Multimodality instruction may assist Pablo in understanding and remembering what is said in the classroom. Directions can be given using both visual and verbal cues simultaneously. For example, the teacher might write the steps on the board while explaining each step or demonstrate each step while describing it verbally. Instruction can be supported with visuals such as pictures, charts, graphs, graphic organizers, or videos.

Reading aloud to Pablo is a helpful activity. Encourage him to interact with the story by pointing to objects in the pictures, guessing what might happen next, or retelling his favorite part. To further develop Pablo's expressive language skills, after reading a story, have him retell the main ideas in his own words.

Pablo's teachers should make efforts to help him activate prior knowledge and apply it to the lessons being taught. Activating what he already knows from family history, prior schooling, or personal experience will aid comprehension of current academic tasks.

Direct vocabulary instruction may facilitate certain aspects of Pablo's ability to understand oral discourse. Target words that signal sequence (e.g., *first*, *next*, *finally*) or spatial orientation (e.g., *before*, *after*, *below*, *above*). Provide practice following directions using these terms. In addition, teach Pablo words that signify relationships between words, such as pronouns, conjunctions, and synonyms.

Pablo will probably gain the most from reading instruction presented within the early to middle kindergarten range.

Pablo may benefit from direct, focused, small group instruction in reading for at least 30 minutes each day. The instructional program should provide multiple opportunities for Pablo to read both words and sentences orally and respond to questions. Pablo should receive clear feedback from the teacher when he makes an error.

Developing Pablo's native language literacy may subsequently be beneficial for developing literacy in English.

Encourage Pablo's family to provide native-language literacy experiences at home by reading native-language books, newspapers, and magazines. Literacy knowledge in Pablo's native language may ultimately contribute to enhanced literacy development in English.

Listening to stories read aloud by the teacher is a good way to enrich vocabulary and introduce comprehension skills such as the main idea or cause and effect relationships.

Writing instruction that is presented within the early kindergarten level is appropriate for Pablo.

Pablo likely will benefit from joint-productive activities that involve small groups of students working collaboratively. The joint activities can result in either tangible work products or intangible instructional objectives. Collaborative written or oral reports, concept maps, and math problems are examples of tangible work products. Intangible instructional objectives might include idea or concept development and understandings that elicit higher-level thinking.

Reading, writing, and oral language skill development is mutually reinforcing. Pablo likely will benefit from integrated instruction in reading, writing, listening, and speaking across all curriculum domains. Oral language development activities should not be sacrificed for greater emphasis on reading and writing.

SPANISH LANGUAGE PROFICIENCY TESTING

*Woodcock-Muñoz Language Survey–Revised, Normative Update, Spanish Form*  
 Norms based on grade 2.9

TABLE OF SCORES (Spanish)

<u>Test/CLUSTER</u>	<u>W</u>	<u>GE</u>	<u>CALP Level</u>	<u>RPI</u>	<u>PR</u>	<u>SS (68% Band)</u>	<u>AE</u>
Vocabulario sobre dibujos	483	1.8	-	79/90	30	92 (88-97)	7-1
Analogías verbales	482	2.2	-	81/90	34	94 (89-99)	7-6
Ident de letras y palabras	430	1.9	-	13/90	12	83 (79-86)	7-2
Dictado	464	1.9	-	48/90	16	85 (81-90)	7-3
Comp de indicaciones	479	1.3	-	72/90	13	83 (75-92)	6-8
Rememoración de cuentos	495	2.7	-	89/90	46	98 (85-112)	8-0
Comprensión de textos	443	1.2	-	6/90	1	65 (59-71)	6-6
LENGUAJE ORAL	482	2.0	<i>lmtd to flu</i>	81/90	32	93 (89-96)	7-4
LENGUAJE ORAL-TOTAL	485	1.9	<i>fluent</i>	82/90	26	90 (87-94)	7-2
LECTURA-ESCRITURA	447	1.9	<i>limited</i>	27/90	13	83 (80-86)	7-3
AMP HAB ESPAÑOL	465	1.9	<i>limited</i>	55/90	10	81 (78-84)	7-3
AMP HAB ESPAÑOL-TTL	468	1.7	<i>limited</i>	54/90	8	79 (77-82)	7-0
HAB PARA ESCUCHAR	481	1.8	<i>lmtd to flu</i>	77/90	24	89 (84-94)	7-2
EXPRESIÓN ORAL	489	2.0	<i>fluent</i>	85/90	33	93 (88-98)	7-4
LECTURA	437	1.6	<i>v limited</i>	9/90	4	73 (69-77)	6-10
ESCRITURA	464	1.9	<i>limited</i>	48/90	16	85 (81-90)	7-3
COMP DE LENG	469	1.3	<i>limited</i>	43/90	2	70 (64-76)	6-7
PROF LENG APLICADO	470	1.5	<i>limited</i>	52/90	6	77 (73-80)	6-10

*Lenguaje oral–Total* is a broad measure of language competency, including listening and speaking skills, language development, verbal reasoning, and language comprehension. Pablo demonstrated fluent Spanish oral language ability (Level 4). His performance is comparable to that of the average student in grade 1.9. Oral language tasks below the grade K.6 level will be quite easy for Pablo; those above the grade 3.6 level will be quite difficult for him.

*Amplia habilidad en español–Total* is a broad sample of listening, speaking, reading, and writing skills, including language comprehension abilities. Pablo demonstrated limited broad Spanish ability (Level 3). His performance is comparable to that of the average student in grade 1.7. Broad language tasks below the grade 1.2 level will be quite easy for Pablo; those above the grade 2.3 level will be quite difficult for him.

*Habilidad para escuchar* (primarily receptive language skills) measures listening ability, comprehension, and linguistic competency. Pablo demonstrated limited to fluent listening ability in Spanish (Level 3-4). His performance is comparable to that of the average student in grade 1.8. Listening tasks below the grade K.9 level will be quite easy for Pablo; those above the grade 3.1 level will be quite difficult for him.

*Expresión oral* (primarily expressive language skills) measures expressive vocabulary, language comprehension and development, and meaningful memory. Pablo demonstrated fluent Spanish oral expression ability (Level 4). His performance is comparable to that of the average student in grade 2.0. Oral expression tasks below the grade K.0 level will be quite easy for Pablo; those above the grade 4.4 level will be quite difficult for him.

*Lectura* measures letter identification skills and the ability to comprehend written passages while reading. Pablo demonstrated very limited Spanish reading ability (Level 2). His performance is comparable to that of the average student in grade 1.6. Reading tasks below the grade 1.3 level will be quite easy for Pablo; those above the grade 1.8 level will be quite difficult for him.

*Escritura* measures spelling, punctuation, capitalization, and word usage. Pablo demonstrated limited Spanish writing ability (Level 3). His performance is comparable to that of the average student in grade 1.9. Writing tasks below the grade 1.6 level will be quite easy for Pablo; those above the grade 2.3 level will be quite difficult for him.

*Comprensión de lenguaje* is a combined measure of listening and reading comprehension abilities. Pablo demonstrated limited Spanish language comprehension ability (Level 3). His performance is comparable to that of the average student in grade 1.3. Language comprehension tasks below the grade K.9 level will be quite easy for Pablo; those above the grade 1.8 level will be quite difficult for him.

*Proficiencia en el lenguaje aplicado* is an index of the proficiency with which Pablo can effectively apply listening, speaking, reading, writing, and comprehension abilities. Pablo's ability to apply language skills in Spanish is limited (Level 3). His applied language proficiency is comparable to that of the average student in grade 1.5. Applied language tasks below the grade 1.1 level will be quite easy for Pablo; those above the grade 2.1 level will be quite difficult for him.

#### SUMMARY OF SPANISH LANGUAGE PROFICIENCY

When compared to others at his grade level, Pablo's Oral Expression skills are fluent (Level 4). His Listening skills are limited to fluent (Level 3–4). His Language Comprehension and Writing skills are limited (Level 3). His Reading skills are very limited (Level 2).

Overall, Pablo's *Oral Language–Total* skills are fluent (Level 4). His *Applied Language Proficiency* (the ability to apply listening, speaking, reading, writing, and comprehension abilities in English) is limited (Level 3). His *Broad English Ability–Total* is limited (Level 3). Pablo's *Reading-Writing* skills are limited (Level 3).



## INSTRUCTIONAL RECOMMENDATIONS & INTERVENTIONS BASED ON ASSESSMENT IN SPANISH

Pablo will probably benefit the most from Spanish oral language instruction that is presented within the early first grade to late second grade range.

Relevant content- or theme-based instructional modules will provide Pablo with a foundation for oral language development in Spanish. Engage Pablo in meaningful conversation using increasingly higher levels of Spanish vocabulary words.

Spanish vocabulary words should be previewed and contextualized with Pablo prior to formally introducing them in a lesson. This requires introducing key terms before a lesson is taught so that Pablo will have an understanding of the term before it is used in the context of the lesson. A limited number of words should be included in each activity, and the words selected should be the key words needed for comprehending an upcoming lesson. Review of the vocabulary words after an instructional activity may also reinforce vocabulary development.

As Pablo encounters a new Spanish word or phrase, make a note of the vocabulary and deliberately present it at different times and contexts. Pablo likely will need to encounter the word or phrase about 12 to 15 times before he knows it well enough to be part of his lexicon.

Repetition and multiple exposures to vocabulary items are important. Pablo should be given vocabulary items in many contexts.

Connecting current instruction to what Pablo already knows and then explicitly discussing how that knowledge applies to the topic at hand will make maximum use of his prior knowledge in new learning. Help Pablo build a bridge from previous learning to new learning by asking him questions such as "What do you remember or know about \_\_\_\_\_?"

Pablo will probably gain the most from Spanish reading instruction presented within the middle to late first grade range.

Writing instruction in Spanish that is presented within the late first grade to early second grade level is appropriate for Pablo.

Modeling the "thinking, reading, and writing" process in front of Pablo may help him later with his own reading and writing. For example, Pablo's teacher may say, in Spanish, "I need to remember that your music class today is at 2:30 P.M. and not at the usual time." Then the teacher writes on the chalkboard, while simultaneously reading aloud, "Para hoy, la clase de música será a las 2:30 de la tarde." Note that the benefits of modeling the thinking, reading, and writing process may not become evident until much later, but Pablo may begin to internalize these processes.

COMPARATIVE LANGUAGE INDEXES (Spanish compared to English)

BROAD ABILITY 54/2

ORAL LANGUAGE 82/51

READING-WRITING 27/0

For his grade level, Pablo performs overall language proficiency tasks with 54% success in Spanish and with 2% success in English. On parallel oral language tasks, Pablo performs with 82% success in Spanish and with 51% success in English. On parallel reading-writing tasks, Pablo performs with 27% success in Spanish and with 0% success in English.

Pablo's performance on the oral language tests of the WMLS-R NU suggests that he is stronger in Spanish, although his Spanish skills fall between the limited and fluent ranges. Academic content instruction in Spanish may be beneficial for Pablo. Instructional support with scaffold instruction may be necessary for Pablo to understand academic content that is delivered in English. In addition, explicit (clearly defined) and meaningful English oral language development interventions are recommended.

