

Linguistic Units and Instructional Strategies That Facilitate Word Recognition for Latino Kindergarteners Learning to Read in Spanish

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Abstract

This article describes the usage of linguistic units and instructional strategies that facilitate word recognition for Latino kindergarten students who are beginning to read in Spanish. This case study was based on coding videotaped reading and language arts instruction of two bilingual kindergarten teachers at the beginning, middle, and end of the school year using the Elements of Word Identification Instruction (Denton, Mathes, & Anthony, 2002), in addition to classroom field notes, narrative descriptions of instructional methods, and an end-of-the-year semistructured interview with the teachers. Results show that although Spanish has consistent letter–sound mappings, beginning reading instruction may focus on instruction at the word level, with phonemes playing a role in error correction, writing and spelling, phonemic awareness, and remediation for struggling readers who cannot read words fluently. This article concludes with implications for further research and discusses the significance of scaffolding word-recognition instruction at the phoneme level.

Introduction

Although there has been much research on teaching reading in Spanish to students in the upper grades via literary experiences, few literacy studies have been conducted with students in prekindergarten through first grade, so there is little research-based knowledge that explains what Spanish reading instruction should look like at the primary level (Calderón, 2001). Reform initiatives such as *Reading First*, which seeks to improve early reading instruction so that students are reading on grade level, remind us that early reading success depends on word recognition because beginning readers who are able to recognize words automatically, without giving attention to processing component parts of words, are better able to focus on word meaning and comprehension (Adams, 1990; Ehri & Wilce, 1983; National Institute of Child Health and Human Development [NICHD], 2000; Pressley, 2003). In general, word study has received considerable attention as one of the major components of effective reading instruction (NICHD, 2000; Snow, Burns, & Griffin, 1998).

Most research on word recognition, however, has been conducted with monolingual English-speaking students so that our knowledge of reading acquisition in Spanish is limited (August & Hakuta, 1997; Calderón, 2001; Goldenberg, 1994). For example, Juel and Minden-Cupp (2000) conducted a microanalysis of first-grade reading instruction, examining which linguistic units (e.g., phonemes, onset-rimes, etc.) were most effective in word recognition. Their conclusion was that instruction that emphasizes onset-rimes and blending phonemes is more beneficial than teaching students to read by analogy based on rimes alone. However, these findings are based on how students learn to read in English, a language that has a deep orthography (i.e., has inconsistent sound-letter patterns). One cannot, consequently, generalize such findings to conclude that these instructional strategies and linguistic units facilitate learning to read in a shallow orthography such as Spanish (i.e., there is consistent grapheme-phoneme correspondence). A similar study (Denton, Mathes, & Anthony, 2002), modeled after that of Juel and Minden-Cupp, compared two reading interventions: a proactive curriculum built on the model of direct instruction and a responsive intervention based on guided reading with explicit instruction in synthetic and analogy phonics. In describing the primary linguistic units and instructional strategies used by teachers to teach first-grade students to read words in English in these interventions, Denton et al. concluded that teachers use strategies that emphasize whole words, phonemes, and onset-rimes. However, this knowledge does not broaden our understanding of word-recognition instruction in Spanish reading because the study focused on beginning English literacy.

Nevertheless, such studies do help us to understand that onset–rimes, intact words (e.g., high-frequency words), and letter-by-letter (phoneme) decoding are important when teaching reading in a deep orthography, such as English (Goswami, 1993; Rayner, Foorman, Perfetti, Pesetsky, & Seidenberg, 2001; Treiman, Mullenix, Bijeljac-Babic, & Richmond-Welty, 1995). However, learning to read in a shallow orthography, such as Spanish (Carreiras, Perea, & Grainger, 1998; Cuetos, 1993; Signorini, 1997; Thonis, 1983), might require an emphasis on different linguistic units and instructional strategies.

According to Thonis (1983), the syllable is the most important linguistic unit in Spanish reading. Current research (González, González, Monzó, & Hernández-Valle, 2000) suggests, on the contrary, that other linguistic units might be essential in Spanish literacy and that the roles of different linguistic units in decoding or sounding out words are dependent on the literacy level of the student. The purpose of this study, therefore, was to describe those instructional strategies and linguistic units that facilitate word-recognition behaviors in kindergarten students who are learning to read in Spanish. Specifically, our research questions were:

1. Which instructional strategies and linguistic units are used over time to facilitate word-recognition behaviors in Latino kindergarten students who are beginning to read in Spanish?
2. How do teachers differentiate word-recognition instruction by type of reader (e.g., high-, middle-, and low-level reading groups) over time?

Literature Review

Learning to Read in a Shallow Orthography

Spanish, unlike English, has a shallow writing system in which letter–sound correspondence is predictable and apparent (Carreiras et al., 1998; Cuetos, 1993; Signorini, 1997; Thonis, 1983). The Spanish vocalic system consists of five vowel sounds with well-defined parameters so that there is no overlap among them (Guirao & Manrique, 1972), allowing Spanish vowels to maintain their phonetic clarity whether used in isolation or in context. In general, the phonetic structure (sound system) of Spanish is based on the syllable, a unit of pronunciation that has only one vowel sound (Honig, Diamond, & Gutlohn, 2000; Thonis, 1983). Because of the consistency of letter–sound correspondence and the importance that vowels play within syllables, beginning reading in Spanish is often taught by focusing on vowel sounds prior to instruction on consonants so that Spanish literacy begins at the phoneme level (Moran & Calfee, 1993).

The Role of Linguistic Units in Spanish Reading

Thonis (1983) suggests that the syllable is the most important concept for teaching students to read in Spanish because syllables can be combined to form words. In Spanish, students participate in phonemic awareness activities in which they hear individual sounds (e.g., vowels, consonants), and sounds within syllables, and learn vowels orally and then in written form. After blending consonants and vowels, syllables are blended into words and words are used in meaningful sentences. Although traditionally the syllable has been viewed as the primary linguistic unit in Spanish word recognition, this viewpoint is contradictory to the fact that students are instructed initially in letter sounds or phonemes (e.g., five vowels). Basically, there is no empirical research that supports why Spanish reading should begin at the syllable level; there are only theories that explain why it does. To simplify a rather complex topic, for example, we can say that Spanish is a syllabic language in which the spoken language is driven by a small group of distinct syllables so that the written language is decoded easily by syllables (Moran & Calfee, 1993). The lexical stress is on the syllable, which is a remnant of Latin Vulgar (i.e., spoken form of everyday, common Latin), which emphasized vowel quality and syllabic stress (Penny, 2002). Nevertheless, initial reading instruction in Spanish emphasizes phonemes because it is not possible to focus on individual vowel sounds or manipulate syllable patterns (e.g., *ma, me, mi, mo, mu*) without being able to attend to individual phonemes when mastering the alphabetic principle (the mapping of letters to sound units or phonemes) (Rayner et al., 2001).

The Role of Instructional Strategies in Spanish Reading

Instructional strategies in Spanish reading can be classified as synthetic, analytic, eclectic, or embedded within a whole-language approach (Calderón, 2001; Collier, 1995). The synthetic approach emphasizes identifying letters, syllables, isolated words, and phrases and then reading short texts of one or two sentences in length. In the analytic approach, children begin with whole words and then analyze parts of words (Thonis, 1983). According to Calderón, the analytic approach later became the *método global* [global method] that emphasized reading the sentence or phrase first, followed by reading the word, the syllable, and the letter. The eclectic approach allows the teacher to select the best of any reading methods and to combine strategies based on the needs of the students. The whole-language approach focuses on learning whole words, with an emphasis on reading for meaning (Freeman & Freeman, 1998).

A careful examination of these methods reveals that phonemes play a role in Spanish reading acquisition. For example, *Success for All*, or *Éxito para Todos*, emphasizes phonemic awareness, in which students listen to a puppet that introduces the “letter for the day” by having students attend to the

individual sound for the letter orally (Calderón, 2001). The traditional synthetic method also requires some instruction in letter names followed by letter sounds. Even in the traditional recitation of *ma, me, mi, mo,* and *mu*, individual vowel sounds are manipulated. Although there has been limited research in Spanish word recognition, findings from current research (Signorini, 1997) suggest that learning to read in Spanish relies on the alphabetic principle, which focuses on phonemes.

Current Research on Word Recognition in Spanish

In a study of 30 Spanish-speaking children in Spain's Canary Islands, González et al. (2000) conducted an experiment to test whether 15 "normal" readers and 15 children with reading disabilities use onset-rime units when recognizing words. Students were selected based on teacher recommendations (according to reading ability) and then asked to read real words and nonwords on reading subtests of *Bateria de Evaluación de los Procesos Lectores de los niños de educación primaria* [Assessment of reading skills for children] (PROLEC) (Cuetos, Rodríguez, & Ruano, 1996). Based upon the results of the PROLEC assessment, students who scored above the 30th percentile were labeled as "normal" readers and those who scored at or below the 30th percentile were labeled as having reading disabilities.

In the González et al. (2000) study, students read lists of monosyllabic and bisyllabic words and nonwords that were represented with a bar in two ways: (a) corresponding to the onset-rime (e.g., fl_or) and (b) not corresponding to the onset-rime (e.g., c_ruel). González et al. concluded that onset-rimes play no role in Spanish reading because there is an explicit and consistent mapping of letters and sounds in Spanish. The authors mention that they also considered the fact that the students in the study had learned to read via a phonics approach and that onset-rimes were not used by the teachers when teaching reading in Spanish. Nevertheless, they suggest that the orthography of a language may dictate which linguistic units (e.g., syllables, onset-rimes, etc.) are utilized and are most helpful in teaching students to read. For example, use of onset-rimes would be greater in a deep orthography, such as English, than in a shallow orthography, such as Spanish, because onset-rimes offer orthographic patterns that can be used consistently in decoding unfamiliar words (Juel & Minden-Cupp, 2000; Greaney, Tunmer, & Chapman, 1997; Treiman, 1992). However, in Spanish reading, students who experience reading difficulties may benefit more from instruction at the phoneme level (González et al., 2000).

Another study that supports the importance of phonemes in Spanish reading was conducted by Signorini (1997) with 65 first-grade and 96 third-grade students from middle-class backgrounds in Buenos Aires by focusing on word recognition in beginning readers who were classified as skilled or less skilled readers. In first grade, there were 20 skilled readers with scores in

the 70th percentile or above on the *Prueba de Comprensión Lectora de Complejidad Lingüística Progresiva* [Reading Comprehension Test of Progressive Linguistic Complexity] (Alliende, Condemarin, & Milicic, 1982) and 20 children in the less skilled group, who scored in the 30th percentile or below on the same test. In third grade, there were 20 skilled readers, scoring in the 70th percentile or above, and 20 less skilled readers, scoring in the 30th percentile or below. One goal of the study was to examine whether a shallow orthography, such as Spanish, along with a simple phonetic system would expedite the development of phonemic awareness skills in students, along with mastery of the alphabetic principle.

During typical, core reading instruction in the Signorini (1997) study, teachers taught students to break sentences into words and to deconstruct words into syllables and phonemes, explicitly teaching all letter–sound correspondences. Based upon a pseudoword and word reading task, along with phonemic awareness tests, some results of the study were the following: (a) Students’ word-reading strategies and knowledge about words influenced their ability to read words; (b) First graders relied on spelling or encoding knowledge, emphasizing sound–letter correspondence when reading unfamiliar words; (c) A single strategy is used in reading both pseudowords and familiar words, namely, translating them letter by letter into phonemes. In general, less skilled first graders used partial letter–sound knowledge when reading unfamiliar words, while skilled readers had mastered letter–sound correspondence of the alphabetic principle and were able to phonologically recode words.¹

This study is significant because findings indicate that Spanish-speaking students, like monolingual English speakers, may learn to read through phonological recoding and spelling–sound patterns of the alphabetic principle (López & Greenfield, 2004; Treiman, 1984) because of the orthographic shallowness of the language. This, however, is facilitated by the method of reading instruction. Less skilled students who are learning to read, that is, phonologically recode words, have difficulties due to not having mastered the alphabetic principle (Paulesu, Demonet, Fazio, McCrory, Chanoine, Brunswick, Cappa, et al., 2001), and not because students do not understand the meaning of the word (Stanovich, 1986). Because Spanish is an alphabetic language, students may need to understand the alphabetic principle, which focuses on individual sounds (phonemes).

Present Study

Because word recognition is an important component of learning to read (Adams, 1990; Snow, et al., 1998; NICHD, 2000), and few studies have focused on the role of linguistic units and instructional strategies when teaching Spanish speakers to read in their primary language, we conducted a case study of two bilingual (Spanish–English) kindergarten teachers in order to

describe how word-recognition instruction may change across the year and if teachers differentiate instruction by type of reader (e.g., high, middle, and low levels of ability).

The researchers coded videotapes of teachers' instructional behaviors, collected field notes, wrote descriptive narratives of instruction, conducted an end-of-the-year semistructured interview with each teacher to obtain teacher perspectives on how they teach children to read in Spanish, and examined students' mean standard scores on the Word Attack subtest of the Woodcock Language Proficiency Battery—Revised Spanish Form (WLPB-R) (Woodcock, 1991) to examine students' end-of-the-year decoding skills.

Methodology

Participants and Setting

This case study was conducted within a larger, multi-state, multi-site, longitudinal project focusing on the development of language and literacy in English language learners from kindergarten through second grade. A case study was appropriate because it allowed a detailed description of instructional behaviors of each individual teacher by relying on observations, interviews, and archival data. This case study focused on the instructional behaviors of the two participating teachers, who are referred to as Ms. Hernández and Ms. Laracuate (pseudonyms).

The school was located within a large urban school district in the Southwest in which at least 60% of the population was Latino, the district had a state accountability rating of "Recognized," and at least 60% of the students received free and/or reduced lunch. In the 2000–2001 academic year, this school had a total enrollment of 648 students, of whom 67.6% were Hispanic, 75.9% were economically disadvantaged, 51.4% were classified by the district as limited English proficient, and 49.4% were enrolled in a bilingual (transitional)–English as a Second Language program. Although there were three bilingual kindergarten teachers at this school, only two were selected by the principal to participate in the study. One teacher had a class of 22 students, and the other had 21 students. Ten students from each class were also participants in the longitudinal study, so scores on an end-of-the-year assessment were available for these students. The 10 students from each class were three above-average, four average or normative, and three below-average students. Teachers selected the 10 students based on how well they were doing overall in the reading and language arts portion of their class during the beginning of the year.

Ms. Laracuate had taught kindergarten for 2 years. With Spanish as her primary language, she learned to read and write in English in an elementary school where instruction was provided only in English. She studied accounting,

obtaining a bachelor's degree, and through an alternative certification program obtained a regular classroom teaching credential with a bilingual and English as a Second Language endorsement. She did not receive preparation in teaching reading in Spanish or English, either in college or in the alternative certification program, and her knowledge of Spanish reading was acquired from on-the-job experience as a bilingual kindergarten teacher.

Ms. Hernández, whose primary language is also Spanish, learned to read and write in English by sight-word recognition in a school that only provided instruction in English. Her teacher preparation in college included one reading methods course that emphasized English phonics. Using information from this class, she was able to teach herself to decode and spell in Spanish and perhaps uses this knowledge to teach Spanish-speaking children to decode and spell in Spanish. Describing herself as "self-taught," Ms. Hernández learned to teach reading in Spanish and English from trial and error and through reading about early literacy. Nevertheless, she has received professional development in specific Spanish reading curricula and has knowledge of several phonics-based programs in English and Spanish. Ms. Hernández has a bachelor's degree in education with a regular classroom teacher certification and a bilingual endorsement that did not include any courses about methods in Spanish reading. She had a total of 24 years of experience as a professional educator, 13 of those years spent teaching kindergarten.

In general, both teachers utilized an explicit code-approach to teaching letter-sound correspondence in Spanish, followed by opportunities for students to read words (e.g., vocabulary) in isolation or in connected text. As students learned to read, each child also read stories out loud from a basal and answered comprehension questions. Reading instruction was also driven by school district benchmarks, which specified lists of high-frequency words to be mastered by students during each 6-week period of the school year.

Both teachers provided reading instruction to the whole class and within small, flexible groups based upon students' reading ability. At the beginning of the year, Ms. Laracunte had a high-level ($N = 10$) and low-level ($N = 12$) group. Later, in February, five new students were added to her class, giving her a total of twenty-seven. During the middle and end of the year, she reconstituted the class into four reading-ability groups, with six students in the high-level group, eight in the middle-level group, and thirteen in the low-level group. The low-level group was subdivided into two groups, one ($N = 7$) with a higher level of reading ability than the other ($N = 6$). Students were regrouped based on their oral reading ability. In contrast, Ms. Hernández maintained three reading groups across the year and reassigned students to groups based on their reading ability. At the beginning of the year there were eight students in the high-level group, eight in the middle-level group, and five in the low-level group. These numbers did not vary much across the year.

Measures

Elements of Word Identification Instruction

The preexisting videotapes (used for training classroom observers in the longitudinal study) of both teachers were coded in this study, using the structured observation tool Elements of Word Identification Instruction (EWII) (Denton et al., 2002), which allows observers to identify word-recognition strategies and linguistic units that each teacher taught students to use in both small groups and whole-class instruction. Data were collected from three existing videotapes per teacher. Each tape captured one day of the teachers' instruction during the reading and language arts (Spanish) period during the beginning, middle, and end of the school year. All three videotapes for each teacher were used in order to describe change in instructional word-recognition behaviors across the year. Ms. Laracuenta's videotaped observations lasted 104 minutes at the beginning of the year, 113 minutes during the middle of the year, and 111 minutes at the end of the year. Ms. Hernández's videotaped observations lasted 129 minutes at the beginning of the year, 116 minutes during the middle of the year, and 89 minutes at the end of the year.

The EWII was created and piloted by Denton et al. (2002) and reflects a teacher's use of contextual meaning, phonological decoding, and linguistic units when teaching beginning readers. It operationalizes categories described by Juel and Minden-Cupp (2000) in a descriptive study that focused on linguistic units and instructional strategies used by elementary first-grade teachers when teaching monolingual English-speaking students to read in English.

Instructional strategies

The EWII allows the observer to record (using tally marks) the strategies that a teacher prompts students to use to identify unknown words across four domains: (I) Prereading, (II) Reading Connected Text, (III) Reading Words in Isolation—Not in the Context of Text Reading, and (IV) Encoding/Spelling (see Appendix for a more detailed description). The Prereading domain was not useful in this case study because only one instructional strategy was used on one occasion by one of the teachers.

Linguistic units

The observer indicates which linguistic unit is emphasized within the instructional strategy with one of the following codes: *P* (phoneme), *W* (whole word), *OR* (onset–rime), *C* (chunk, e.g., inflectional ending, syllable), or *U* (undetermined). The latter code is used when the linguistic unit is not specified by the teacher. For example, if the student makes a word-reading error and the teacher says, “I know that you can do a better job [in reading the word]—Go back,” the teacher does not specify which linguistic unit should

be used when the student goes back to read. In contrast, if the teacher says, “Go back and read each sound [phoneme] in that word,” the reading event is coded with a *P*.

Inter-rater reliability: Pilot study

In Denton et al.’s (2002) study, the EWII had a mean inter-rater reliability of 80% or higher when used to code reading instruction of monolingual English speakers. In a pilot study, two bilingual observers (Observer 1: English–Spanish; Observer 2: Spanish–English) used the EWII to code a 30-minute video of a bilingual kindergarten teacher. Both observers had an extensive background in Spanish and English literacy (e.g., advanced degrees in education, experience teaching reading in English and/or Spanish, expertise in conducting observations of Spanish–English reading instruction) and were trained to use the EWII by observers from Denton et al.’s study.

During the pilot study, an *S* linguistic code was added for teacher prompts at the syllable level so that both observers could specifically code syllable use as opposed to “chunks”—a category that was too broad—and a space was provided for indicating instructional format (e.g., whole class). It was decided that both observers would write the actual word prompted by the teacher next to the appropriate instructional strategy that was used, followed by the symbol for the linguistic unit. Writing the actual word ensured that observers agreed on which words were being prompted by the teacher. Inter-rater reliability was 95% agreement on instructional strategies and 90% agreement on linguistic units.

Inter-rater reliability: Current case study

When observing Ms. Laracunte across the year, inter-rater reliability was 83% on instructional strategies and 82% when coding linguistic units. When observing Ms. Hernández, inter-rater reliability was 63% on instructional strategies and 74% when observing linguistic units. Overall, it was difficult to differentiate among three overlapping strategies when teachers prompted students to read words in isolation: “teacher tells a word,” “teacher models as sight recognition,” and “sight recognition.” What both observers agreed upon was that in these overlapping strategies, students were not prompted to deconstruct words by sounding out, segmenting phonemes, and so forth, but were being asked to focus on the whole word. These three strategies were, therefore, collapsed into one global category, increasing inter-rater reliability for instructional strategies to 76% for Ms. Hernández.

Woodcock Language Proficiency Battery—Revised Spanish Form

The WLPB—R is a standardized instrument that provides measures of language proficiency with measures of oral language, reading, and written language. Because instruction in word recognition impacts students' ability to decode words, end-of-the-year mean standard scores from the Word Attack subtest that had been administered to the 20 (10 from each teacher's class) students in the longitudinal study were included in the present study to link instructional behavior in the classroom with end-of-the-year achievement. The Word Attack subtest measures one's ability to pronounce phonically regular nonsense words using knowledge of the alphabetic principle. However, there was no baseline data on the Word Attack subtest because it was not given at the beginning of the year in the longitudinal study, so there are no measurable effects of how the instructional behaviors of the two bilingual kindergarten teachers may have impacted students' ability to decode words in Spanish over time. However, the Word Attack subtest does provide some insight into students' knowledge of the alphabetic principle and ability to read words at the end of the year.

Semistructured teacher interviews

Each teacher participated in a semistructured interview at the end of the study. The purpose of the interviews was to gather information about teacher perspectives and beliefs regarding the significance of linguistic units and instructional strategies for word recognition in Spanish. The interviews were audiorecorded, transcribed by one person—the principal researcher of this study—and distributed to each teacher to verify that the data accurately represented her beliefs and practices.

Data Collection

Archival data (i.e., videotapes, field notes, and the WLPB—R) were used for the purpose of this case study; some had been collected in the multi-site, longitudinal study. We obtained written permission from the two kindergarten teachers to allow us to code the longitudinal study's videotapes of their Spanish reading and language arts lessons, using the EWII. Field notes collected by observers in the longitudinal study to summarize reading and language arts instruction were included in the present study to further describe general characteristics of the reading instruction of the two bilingual teachers. At the end of the year, we obtained mean standard scores of 20 children, 10 from each class, on the Word Attack subtests of the WLPB—R, to examine students' ability to decode nonsense words.

In addition to the above archival data, narratives and teacher interviews were also collected. Researcher narratives described general reading instruction, error-correction procedures, specific instructional strategies, and

linguistic units used by each teacher across the year, as evident in the videos of her Spanish reading and language arts class. These narratives allowed the observer to richly describe and transcribe dialogues between teacher and students. For the teacher interviews, eight questions were used to examine and describe each bilingual kindergarten teacher's perspective about (a) how students learn to read in Spanish, (b) the role of linguistic units and instructional strategies used in word recognition, and (c) education preparation that has influenced her teaching of Spanish reading.

Data Analysis

This microanalysis synthesized data collected by coding videotapes with the EWII, field notes written by observers in the longitudinal study on Spanish literacy, descriptive narratives of the same videotaped reading lessons that had been coded by the EWII, information gathered in the teacher interviews, and end-of-the-year student achievement on the WLPB—R (Spanish). Data from the EWII-coded videotapes was arranged in about 12 tables and two graphs that summarized data by frequency of each strategy that teachers used to prompt students. (Due to space limitations, we could not include all of the tables and graphs here.)

Results

Research Question 1

Our first research question asked: Which instructional strategies and linguistic units are used over time to facilitate word-recognition behaviors in Latino kindergarten students who are beginning to read in Spanish?

Ms. Laracuate

Beginning-of-the-year instructional strategies

Data from Table 1 reveal that Ms. Laracuate taught word recognition almost equally by sight-word recognition (29%), segmenting (25%), and using a framework for writing (24%). Within Domain II, Reading Connected Text, Ms. Laracuate taught word recognition to the entire class by prompting students to locate words in the text, reviewing words through sight-word recognition, modeling how to sound out words, and asking students to “try reading the word again” when students made word-reading errors or struggled to read particular words. When Ms. Laracuate prompted the class to read words in isolation, students recalled sight words and focused on sounding out. She did not focus on reading words in connected text or in isolation when teaching her two reading groups (high and low level) but instead focused on encoding.

Table 1

*Instructional Strategies Used by Ms. Laracuentе (L)
and Ms. Hernández (H)*

	Beginning of year				Middle of year				End of year			
	L		H		L		H		L		H	
	N	%	N	%	N	%	N	%	N	%	N	%
Sight recognition	46	29	0	0	31	53	77	37	0	0	96	60
Segmenting	39	25	0	0	0	0	0	0	0	0	0	0
Framework	37	24	0	0	0	0	0	0	0	0	0	0
Model sight recognition	14	9	0	0	0	0	14	7	0	0	0	0
Locate words	8	5	5	8	18	31	5	3	6	46	0	0
Sounding out	6	4	38	62	2	3	43	21	2	15	17	11
Prompt letter-sound	4	3	0	0	0	0	0	0	0	0	0	0
Try again	2	1	3	5	4	7	13	6	4	31	10	6
Teacher tells	0	0	9	15	1	2	40	20	1	8	36	22
Silently sounding out	0	0	6	10	0	0	5	3	0	0	0	0
Teacher reads a portion	0	0	0	0	2	4	0	0	0	0	0	0
Link to a known word	0	0	0	0	0	0	2	2	0	0	0	0
Phonics statement	0	0	0	0	0	0	1	1	0	0	0	0
Other child tells	0	0	0	0	0	0	0	0	0	0	1	1
Total	156		61		58		200		13		160	

Note. N = number of occurrences. The terms *sight-word recognition* and *sight recognition* are frequently used interchangeably.

When teaching students in both reading groups and the entire class to write words, Ms. Laracuate employed the same instructional strategies: She prompted students to segment words into their sounds and provided a framework (e.g., phonemic awareness) in the form of counting out loud for sounds or syllables in a word, tapping, and so forth to help students attend to syllables and phonemes within words before asking students to write the letter(s) for the sound(s). Table 2 shows that when teaching students in the high-level group, the teacher focused on a writing framework (70%) and segmenting words (30%). When working with the low-level group, her focus was primarily on segmenting words (76%), followed by a writing framework (12%) and prompting letter sounds (12%).

Beginning-of-the-year linguistic units

Data from Table 3 reveal that Ms. Laracuate taught students to read words at the whole-word level (46%), by syllables (30%), and by phonemes (23%). Word recognition at the word level occurred as students reviewed familiar words (e.g., days of the week, months, etc.). Table 4 indicates that when students wrote words, Ms. Laracuate prompted them to segment by phonemes (29%) and syllables (71%) and used a framework (e.g., phonemic awareness) or scaffold with an emphasis on syllables (53%) and phonemes (47%).

Across instructional formats, students were prompted to read connected text (see Table 5), via syllables (80%) and undetermined linguistic units (13%). When students read words in isolation, prompting was at the word level (90%), with less attention given to phonemes (5%) and syllables (5%). When students were prompted to spell words, instruction occurred at the syllable (51%) and phoneme (39%) level, with less emphasis given to words (10%). Table 6 shows that when working with students in the high-level group, instruction occurs primarily at the syllable (51%) and phoneme (49%) level. The same linguistic units (e.g., phonemes and syllables) are used when prompting students in the low-level group to read words.

Middle-of-the-year instructional strategies

In February, Ms. Laracuate continued to review words by sight-word recognition (53%) in addition to prompting students to locate words (31%) in connected text (see Table 1). Less emphasis was given to sounding out. When teaching the entire class to read words in connected text, this teacher only prompted students to locate words. When teaching the entire class to read words in isolation, the emphasis was only on sight-word recognition. Students were not prompted to write words. Table 2 shows that when prompting students in the highest level reading group to recognize words, Ms. Laracuate emphasized locating words (52%) within sentences and reading lists of words by sight-word recognition (15%). However, Ms. Laracuate prompted students to correct word-reading errors through sounding out, or she physically pointed to the word while sometimes saying, “No” (i.e., “try again”). Sometimes she

Table 2

Instructional Strategies by Type of Reader (High [Hi]-, Middle [M]-, and Low-Level [Lo] Reading Groups) During the Beginning, Middle, and End of Year

	Beginning of year						Middle of year						End of year					
	L(%)			H(%)			L(%)			H(%)			L(%)			H(%)		
	Hi	M	Lo	Hi	M	Lo	Hi	M	Lo	Hi	M	Lo	Hi	M	Lo	Hi	M	Lo
Sounding out	0	-	0	16	100	0	7	-	-	25	43	18	-	-	15	12	10	11
Silently sounding out	0	-	0	16	0	0	0	-	-	2	0	4	-	-	0	0	0	0
Segmenting a word	30	-	76	0	0	0	0	-	-	0	0	0	-	-	0	0	0	0
Framework	70	-	12	0	0	0	0	-	-	0	0	0	-	-	0	0	0	0
Prompt letter-sound	0	-	12	0	0	0	0	-	-	0	0	0	-	-	0	0	0	0
Phonics statement	0	-	0	0	0	0	0	-	-	2	0	0	-	-	0	0	0	0
Sight recognition	0	-	0	0	0	0	15	-	-	30	53	53	-	-	0	82	42	72
Model as sight recognition	0	-	0	0	0	0	0	-	-	0	0	2	-	-	0	0	0	0
Locate words	0	-	0	26	0	0	52	-	-	6	0	2	-	-	46	0	0	0
Try again	0	-	0	16	0	0	15	-	-	13	0	7	-	-	31	6	7	6
Teacher tells	0	-	0	26	0	0	4	-	-	22	0	14	-	-	8	0	1	11
Teacher reads portion	0	-	0	0	0	0	7	-	-	0	0	0	-	-	0	0	0	0
Analogy	0	-	0	0	0	0	0	-	-	0	4	0	-	-	0	0	0	0
Other child tells	0	-	0	0	0	0	0	-	-	0	0	0	-	-	0	0	0	0

Note. L = Laracuenté; H = Hernández. Dashes indicate the data were not obtained.

Row entries arranged by strategies range from being most phonemic in nature to those that emphasize the whole word. Entries also reflect that at the beginning of the year, Ms. Laracuenté only had two reading groups: high level and low level. During the middle of the year, she was only observed teaching the high-level group, and during the end of year, she was observed teaching the lowest level reading group (out of four groups).

Table 3

Linguistic Units Used Across the Year by Ms. Laracuenta (L) and Ms. Hernández (H)

Linguistic units	Beginning of year				Middle of year				End of year			
	L		H		L		H		L		H	
	N	%	N	%	N	%	N	%	N	%	N	%
Phonemes	37	23	6	10	1	2	13	6	0	0	3	2
Syllables	49	30	35	57	1	2	36	17	2	15	15	9
Chunks	0	0	0	0	0	0	0	0	0	0	0	0
Onset-rimes	0	0	0	0	0	0	0	0	0	0	0	0
Words	76	46	16	26	50	89	145	70	7	54	135	84
Undetermined	2	1	4	7	4	7	14	7	4	31	7	5
Total	164		61		56		208		13		160	

Note. N = number of occurrences. Total counts for linguistic units may be higher than total counts for instructional strategies because sometimes two linguistic units are used when implementing one instructional strategy (e.g., phonemes and syllables when sounding out a word).

told the word. This teacher was only observed with the high-level reading group on the middle-of-the-year video. She explained that she did not have time to teach all reading groups on a daily basis because she needed more time for teaching math, science, and social studies.

Middle-of-the-year linguistic units

During the middle of the year (see Table 3), Ms. Laracuenta prompted students to read words at the word level (89%), with less emphasis on reading by phonemes (2%), syllables (2%), and undetermined linguistic units (7%). Table 5 shows that Ms. Laracuenta, whether prompting students to read words in isolation or within connected text, word-recognition instruction primarily occurred at the word level, with fewer prompts at the syllable or phoneme level. This is consistent with the fact that the primary instructional strategies at this time were sight-word recognition and locating words in text. Table 6 shows that when this teacher was observed teaching the high-level reading group, again, she focused on prompting students to read at the word level (77%) and utilized undetermined linguistic units (16%). Phonemes (3%) and syllables (6%) were prompted when correcting errors.

Table 4

*Frequency of Linguistic Units Used During Encoding—
Ms. Laracuenté*

	Linguistics units	N	%
Segmenting	Syllables	27	71
	Phonemes	11	29
	Words	0	0
	Undetermined	0	0
	Total	38	
Frame work	Syllables	19	53
	Phonemes	17	47
	Words	0	0
	Undetermined	0	0
	Total	36	
Promoting letter-sound	Syllables	0	0
	Phonemes	4	100
	Words	0	0
	Undetermined	0	0
	Total	4	

Note. N = number of occurrences. Chunks and onset-rimes were not used during encoding. Total counts are in bold. Data were obtained at the beginning of the year only.

End-of-the-year instructional strategies and linguistic units

Word-recognition instruction only occurred at the end of the year when students in the lowest level reading group (i.e., the lowest of the four groups) recognized words in connected text. When students made oral reading errors, the teacher pointed to the word and said, “No,” using undetermined linguistic units. Tables 1 and 2 describe instructional strategies used with the lowest level reading group: locating words (46%), try again (31%), sounding out (15%), and teacher tells (8%). Table 3 shows that the linguistic unit that assumes

Table 5

Linguistic Units by Domain: Beginning, Middle, and End of the Year

	Beginning of year				Middle of year				End of year			
	L		H		L		H		L		H	
	N	%	N	%	N	%	N	%	N	%	N	%
Connected text												
Phonemes	0	0	0	0	1	3	2	4	0	0	0	0
Syllables	1	7	3	13	1	3	16	30	2	15	0	0
Words	12	80	16	70	23	80	27	51	7	54	2	100
Undetermined	2	13	4	17	4	14	8	15	4	31	0	0
Total	15		23		29		53		13		2	
Words in isolation												
Phonemes	3	5	6	16	0	0	11	7	0	0	3	2
Syllables	3	5	32	84	0	0	20	13	0	0	15	10
Words	56	90	0	0	27	100	116	76	0	0	132	84
Undetermined	0	0	0	0	0	0	6	4	0	0	7	4
Total	62		38		27		153		0		157	
Encoding												
Phonemes	34	39	0	0	0	0	0	0	0	0	0	0
Syllables	45	51	0	0	0	0	0	0	0	0	0	0
Words	8	10	0	0	0	0	2	100	0	0	1	100
Undetermined	0	0	0	0	0	0	0	0	0	0	0	0
Total	87		0		0		2		0		1	

Note. L = Laracuenté; H = Hernández; N = number of occurrences.

Onset-rimes and chunks were not used by either teacher. Total counts are in bold.

Table 6

Linguistic Units by Type of Reader (High [Hi]-, Middle [M]-, and Low-Level [Lo] Reading Groups) During the Beginning, Middle, and End of Year

Linguistic units	Beginning of year						Middle of year						End of year					
	L (%)			H (%)			L (%)			H (%)			L (%)			H (%)		
	Hi	M	Lo	Hi	M	Lo	Hi	M	Lo	Hi	M	Lo	Hi	M	Lo	Hi	M	Lo
Phonemes	49	-	35	0	5	0	3	-	-	6	4	9	-	-	0	4	0	4
Syllables	51	-	65	7	25	0	6	-	-	19	39	9	-	-	15	8	10	8
Chunks	0	-	0	0	0	0	0	-	-	0	0	0	-	-	0	0	0	0
Onset-rimes	0	-	0	0	0	0	0	-	-	0	0	0	-	-	0	0	0	0
Words	0	-	0	12	0	0	77	-	-	58	57	72	-	-	54	84	83	64
Undetermined	0	-	0	5	0	0	16	-	-	17	0	9	-	-	31	4	7	4

Note. L = Laracuenté. H = Hernández. Dashes indicate the data were not obtained.

Row entries arranged by linguistic units range from being most phonemic in nature to those that emphasize the whole word.

primary importance at this time of year is the word (54%), followed by undetermined linguistic units (31%) and syllables (15%).

Ms. Hernández

Beginning-of-the-year instructional strategies

Table 1 indicates that students were prompted to sound out words (62%) and were told unfamiliar words (15%). When teaching the entire class, Ms. Hernández emphasized telling words within connected text and sounding out when reading words in isolation. Within the reading groups, the teacher prompted students to sound out words both orally and silently, to locate words in text, and to try again if they made an error. Table 2 shows that Ms. Hernández spent more time prompting students in the middle-level group to sound out words, whereas her primary emphasis with the high-level reading group was on strategies that emphasized reading the whole word: locate words (26%) and teacher tells (26%). Students in the low-level group were not reading words but were learning letter names and sounds, and how to blend consonant and vowel sounds to make syllables.

Beginning-of-the-year linguistic units

Fifty-seven percent of word-recognition instruction occurred at the syllable level, followed by 26% at the word level and 10% at the phoneme level (see Table 3). Table 5 indicates that across instructional formats, when students were prompted to read connected text, word recognition occurred at the word level (70%), followed by undetermined linguistic units (17%) and syllables (13%). When prompted to read words in isolation, the focus was on syllables (84%), followed by phonemes (16%). This teacher did not prompt students to write words. Additional data from the EWII that are not included in Tables 1–6 reveal that when students were prompted to sound out across domains, the emphasis was on syllables (85%) and phonemes (15%). Also, Ms. Hernández prompted any student who struggled with words at any time to analyze phonemes when unable to decode words by syllables.

Middle-of-the-year instructional strategies

Table 1 shows that instruction occurred via sight-word recognition (37%), sounding out (21%), and teacher tells (20%). In addition to data presented in Tables 1–6, additional data analyzed using the EWII show that when teaching the whole class to identify words within connected text, Ms. Hernández prompted students to sound out words (67%), and she told them the word (33%). In contrast, when teaching words in isolation, Ms. Hernández told the word (50%) and modeled new words by sight recognition (46%). Across domains (see Table 2), when teaching students in the high-level reading group, Ms. Hernández utilized sounding out (25%), sight-word recognition (30%), and teacher tells (22%). When instructing students in the middle-level reading group, the teacher focused almost equally on sounding out (43%) and sight-word recognition (53%). However, the instructional strategies primarily utilized with the low-level students were sight-word recognition (53%), sounding out (18%), and teacher tells (14%).

Middle-of-the-year linguistic units

Table 3 indicates that Ms. Hernández prompted word recognition predominantly at the word level (70%), with little emphasis on the syllable (7%) or phoneme (6%). Across instructional formats (see Table 5), when students were prompted to read words in connected text, they were prompted at the word level (51%), followed by syllables (30%) and undetermined linguistic units (15%). When reading words in isolation, the emphasis was on intact words (76%), followed by syllables (13%) and phonemes (7%). She also prompted students to spell two words at the word level. Across domains and instructional formats, this teacher continued to ask students to sound out phonemes within syllables when students struggled to decode words by syllables alone. Table 6 indicates the same linguistic units are utilized across the three reading groups, with primary importance given to words, followed by syllables and phonemes.

End-of-the-year instructional strategies

Students were prompted to read words by sight (60%) and to sound out words (11%), with the teacher also telling words (22%; see Table 1). When teaching students in the three reading groups (see Table 2), Ms. Hernández strongly emphasized sight recognition over sounding out, but she also emphasized try again when prompting students in the middle-level group to read words. Interestingly, her emphasis in the low-level reading group was again on sight-word recognition, as students were prompted to recognize words at sight (72%) and to sound them out (11%) if they could not read the word automatically. Sometimes the teacher told the word (11%) if students were not able to sound out the word.

End-of-the-year linguistic units

Table 3 indicates that Ms. Hernández mostly prompted students to recognize words at the whole-word level (84%), with less emphasis on syllables (9%), phonemes (2%), and undetermined linguistic units (5%). Nevertheless, sounding out at the syllable level was still used as the teacher's instructional strategy when students read unfamiliar words. Across instructional formats (see Table 5), word recognition within connected text occurred only at the word level (100%), while students were prompted to read words in isolation by words (84%), syllables (10%), undetermined linguistic units (4%), and phonemes (2%). She also prompted students to spell a word at the word level.

Overall, both teachers began the year by prompting students to sound out unfamiliar words at the syllable and sometimes phoneme level, later moving toward strategies that emphasized reading the whole word (e.g., sight-word recognition, locating words in text, telling the word, etc.) during the middle of the year. This emphasis on reading at the word level continued through the end of the school year. Ms. Laracuente, however, focused more on sight-word recognition from the very beginning of the year, which is evident during her morning calendar activities in which students read names of the days of the week, months, colors, and so forth from flash cards. The beginning-of-the-year videotape and middle-of-the-year field notes show that when teaching students to write words, she utilized a framework (phonemic awareness) or prompted students to segment words into syllables and/or phonemes. Ms. Hernández, in contrast, focused very little on writing words across the year. However, she was observed prompting students to sound out the word at the beginning of the year and continued to prompt students to decode words at the syllable and phoneme level when students encountered unfamiliar words across the year or when they made word-reading errors.

Research Question 2

Our second question was: How do teachers differentiate word-recognition instruction by type of reader (e.g., high-, middle-, and low-level reading groups) over time?

Teachers sometimes used different instructional strategies and linguistic units to differentiate instruction based upon the literacy ability of the students. For example, in January, field notes indicated that Ms. Laracuate regrouped students (into three groups) so that those in the low-level group read syllables in isolation, combining them to make words, while those in the middle and high-level groups read stories and focused on comprehension. Ms. Laracuate explained that the reading groups were reconstituted because some of the students were unable to read fluently and required remediation in reading syllables and the individual sounds within syllables when decoding words. Later, in February, using the same criteria, she regrouped the class into four groups. Field notes indicated that students who required remediation received instruction in identifying the individual phonemes within syllables, reading syllables in isolation, and using phonemic awareness as a framework or scaffold to help students to write words, while the middle-of-the-year videotape showed that all students in the high-level group read stories and primarily focused on recognizing words at the word level (77%; see Table 6) via sight-word recognition and locating words in connected text. Ms. Laracuate was not observed teaching students in the middle-level group at this time of year.

Another example of differentiation by type of reader occurred at the beginning of the year, when Ms. Hernández focused on letter sounds and combining phonemes to form syllables when students in the low-level reading group were not yet reading words. Students in the middle-level group, however, were prompted to read simple sentences and sound out unfamiliar words by syllables (25%) and phonemes (5%) (see Table 6). They seemed to require more practice in decoding or sounding out because they were not always able to read words automatically without errors like those students in the high-level group, who read a story in a basal reader and were asked to locate words in text. By the middle of the year, Ms. Hernández did not differentiate instruction much across reading groups by linguistic unit or instructional strategy because she prompted word recognition at the word level for each group, focusing on sight-word recognition as students identified vocabulary words on flash cards.

Summary of Teacher Interviews: Role of Phonemes, Syllables, and Words

Word-Recognition Strategies

Both teachers agreed that after introducing consonant sounds, they teach vowel sounds so that students create syllables orally and in written form. Ms. Laracuate explained that she teaches high-frequency words (the school district's benchmarks) as intact units. These behaviors were observed in practice. Ms. Hernández did not refer to her tendency to prompt students to read using whole-word strategies but emphasized the importance of sounding out by syllables and by phonemes within syllables.

Remediation for Struggling Readers

Ms. Laracuate explained that she reviews individual sounds, advises students to segment phonemes within vowel–consonant–vowel patterns (e.g., “Let’s clap for each sound in *ama*”) when reading or spelling words, and uses students’ phonemic awareness to help them attend to individual sounds. Ms. Hernández explained that she reviews sounds and teaches students to attend to them in words before reading by syllables, focusing on one- or two-syllable words before progressing to multisyllabic words. She teaches some struggling readers to read by sight words when they cannot read by syllables. The two teachers’ self-reports on their instructional behaviors corroborated what was observed in actual practice.

Linguistic Units Within Word Recognition

Ms. Laracuate said that she focuses on syllables except when teaching students to read consonant–vowel–consonant words (e.g., *sal*) that they cannot read easily; in such cases, she focuses on phonemes. This was observed when providing remediation to struggling readers. Although Ms. Hernández said that she focuses on syllables, she was also observed isolating phonemes within words and syllables, especially when students struggled to decode by syllables. Neither teacher referred to her tendency to prompt students to read at the word level.

Summary of End-of-the-Year Student Achievement

The mean standard score on the WLPB—R for the 10 participating students in Ms. Laracuate’s class was 128, with a standard deviation of 18. According to the Classification of Standard Scores and Percentile Rank of the WLPB—R (1991), *average* is defined by scores in the range of 90 to 110. Student scores in Ms. Laracuate’s class ranged from average to above average. The mean standard score for the 10 students in Ms. Hernández’s class was 125, with a standard deviation of 20. Consequently, most student

participants in both classes scored above average in their ability to decode regular words at the end of the year, using knowledge of the alphabetic principle.

Discussion and Implications

This case study was limited due to the small number of participants (sample of convenience) and the researchers' inability to observe instruction more frequently (e.g., monthly, weekly, etc.) or over a longer duration (e.g., over several years). Therefore, generalizations cannot be made about how all bilingual teachers teach students to read in Spanish. Findings, however, suggest that because Spanish has consistent letter–sound mappings, phonemes may be beneficial in phonemic awareness instruction, error correction, writing and spelling, and remediation for struggling readers who cannot read words fluently. Findings also suggest that some reading instruction may focus on intact words using global strategies.

Instructional Strategies

Results from coding the videotapes with the EWII, narratives, and field notes confirm that when children learn to read in Spanish, a shallow orthography with consistent grapheme–phoneme correspondence (Carreiras et al., 1998; González et al., 2000; Signorini, 1997), teachers do not rely on instructional strategies such as analogies and phonics statements (e.g., “When two vowels are together in a word [in English], the first vowel has a long sound,” etc.) that are more appropriate for learning to read in a language, such as English, that is characterized by sound–spelling irregularities (Coltheart, Curtix, Atkins, & Haller, 1993; Juel & Minden-Cupp, 2000; Signorini, 1997; Treiman et al., 1995). In practice, one teacher used analogies twice when teaching how to write and/or read a word and emphasized that when decoding a word beginning with the letter *H*, the reader should keep in mind that the *H* in Spanish is silent.

Teachers, however, did rely on sight-word recognition, a strategy often used when teaching students to read irregular words in English (Goswami, 1993; Rayner et al., 2001; Treiman et al., 1995). Research (Ehri, 2003) shows that even in sight-word recognition, students must understand the alphabetic principle in order to read words quickly. Readers must know how to segment sounds and understand letter–sound correspondence in order to recognize words by sight. Perhaps in Spanish reading instruction, this strategy gives students practice in mastering the alphabetic principle by reading words fast. In the semistructured interviews, teachers emphasized the importance of reading discrete words (e.g., high-frequency words, story vocabulary, multisyllabic words, etc.) automatically and fluently. Research shows that this rapid and automatic reading of single words is important for reading and

comprehension (Adams, 1990; Henry, 2003; NICHD, 2000; Pressley, 2003; Samuels, 2003) so that sight-word recognition may be beneficial in Spanish reading acquisition. Sight-word recognition was also used in this study to help students read unfamiliar words (e.g., names of colors) when the teacher had not taught all letter-sound elements within the word at the beginning of the year.

Although teachers began the year emphasizing sounding-out strategies as students learned to read words, toward the middle of the year the focus shifted to more global-visual (e.g., sight-word recognition, locate words in text, try again) and word-given strategies. This is evident whether teaching the whole class or small reading groups. In general, across time, students of different reading ability (high-, middle-, and low-level group) were prompted to read words via the same instructional strategies (e.g., sight-word recognition, teacher tells, etc.).

Linguistic Units

Although the phonetic structure of Spanish focuses on the syllable (Honig et al., 2000; Thonis, 1983), research shows that phonemes are important when students learn to read in Spanish (González et al., 2000; López & Greenfield, 2004; Moran & Calfee, 1993; Signorini, 1997), and, as in other orthographic languages, decoding strategies of consistent letter-sound correspondences is emphasized (Goswami, Gombert, & De Barrera, 1998). This was observed in practice when both teachers, especially Ms. Hernández, prompted students to sound out and decode words by phonemes when syllables could not be quickly identified. Research confirms that the manipulation of phonemes (e.g., phonemic awareness) is important in the reading process and allows students a clearer understanding of the alphabetic principle (Durgunoğlu, Nagy, & Hancin-Bhatt, 1993; Ehri, 2003; NICHD, 2000). Also, phonemes are important when students experience difficulties in reading words (González et al., 2000; Signorini). The latter point was evident when Ms. Laracuenta differentiated instruction for struggling readers by reteaching individual sounds in Spanish (e.g., “This sound is /m/”), followed by the use of phonemic awareness as a scaffold or framework to help students attend to sounds within syllables before writing letters to spell words (e.g., “What sound do you hear in the middle of the word? Yes, /a/. Write the letter that makes that sound”). Phonemes may also play a role in error-correction procedures when teachers prompt students to segment syllables by phonemes when they struggle to decode or write words. In general, research shows that encoding or spelling words in an alphabetic language is dependent upon mastery of the alphabetic principle, in which students hear sounds and translate them into letters or alphabetic symbols (Adams, 1990; Ehri, 2003; Henry, 2003; Moats, 2000). In this study, encoding occurred at both the syllable and phoneme level when phonemic awareness was used as an instructional scaffold or framework to help students attend to phonemes and syllables before writing the word or when correcting

writing errors. For example, when prompting students to write the word *mal* correctly, the teacher might say, “Let’s clap for the sounds that you hear in the word *mal*. What letter makes the /m/ sound? Write it, etc.”

Across time, teachers in this study were sometimes observed telling students words. This tendency to say the word for students is common, as indicated in a study of interruption behaviors in which Allington (1980) describes the most frequent teacher-interruption behavior as pronouncing the word for students or telling the word when teaching monolingual students to read in English. Also, across the year, teachers were observed moving from use of phonemes and syllables when students were just learning to read to an emphasis on whole words as students were prompted to read vocabulary and high-frequency words automatically.

Implications for the Literature

González et al. (2000) concluded that in Spanish reading, remediation may benefit students when the focus is placed on phonemes. Signorini (1997) also reported from a study of skilled and less skilled readers that when reading both pseudowords and familiar words, Spanish-speaking students rely on translating words letter by letter into phonemes. Again, findings from the present study as well as those of Signorini and González et al. indicate that learning to read in Spanish relies on phonological recoding of spelling–sound patterns, suggesting that less skilled beginning readers in Spanish have difficulties in reading because they have not mastered the alphabetic principle (Paulesu et al., 2001).

When English-speaking students learn to read, analogies, onset–rimes, and sometimes phonics statements are emphasized due to the irregularity of letter–sound correspondence within the English language (Coltheart et al., 1993; Goswami, 1993; Haskell, Fooman, & Swank, 1992; Juel & Minden-Cupp, 2000; Signorini, 1997; Treiman et al., 1995). However, these strategies are used less frequently in Spanish reading instruction due to the shallow orthography of the language (Carreiras et al., 1998; González et al., 2000; Signorini). Also, Spanish reading may include instruction at the word level, supporting the fact that when teaching reading, teachers sometimes use whole-word approaches regardless of the shallowness of the orthography of a language (Rayner et al., 2001).

Implications for Future Research

Research is needed that would examine the role of phonemes and instructional strategies within Spanish reading interventions for students who experience difficulties in learning to read. Intervention research with English-speaking students suggests that word-recognition instruction must be direct, systematic, and explicit phonemically—focusing on the alphabetic principle in order to assist students who experience difficulties when learning

to read (Foorman & Torgeson, 2001; Juel & Minden-Cupp, 2000). Studies done by Signorini (1997) and González et al. (2000) suggest that phonemes might also play a role in word reading for students learning to read in Spanish because less skilled beginning readers sometimes have difficulties since they have not mastered the alphabetic principle.

Conclusion

Beginning readers of an alphabetic language achieve fluency and skill as they develop an understanding of the sound–letter patterns within their writing system (Ehri, 2003; NICHD, 2000, Rayner et al., 2001; Snow et al., 1998). Because Spanish is an alphabetic language, learning to read is dependent on mastering knowledge of how letters represent sounds and requires students to manipulate individual phonemes (e.g., attend to phonemes in a speech stream, segment phonemes, blend phonemes, etc.) within the language (López & Greenfield, 2004). Although Spanish word-reading instruction has traditionally focused on reading by syllables (Thonis, 1983), findings from this case study concur with previous research that phonemes play a role in learning to read in Spanish (Signorini, 1997; González et al., 2000). Specifically, findings from this study are educationally significant because they suggest that phonemes may be beneficial when providing scaffolding within word-recognition instruction so that students master the alphabetic principle. Although teachers in this study primarily emphasized reading at the word level, followed by syllables, then phonemes, this study revealed that phonemes assumed relevance within the scaffolding process when students experienced difficulties reading words by syllables or were spelling or writing words.

Scaffolding is a process in which a learner is able to accomplish a task or to solve a problem with the assistance of a more experienced person (Daniels, 2003; Moll, 1990; Vygotsky, 1981; Wood, Bruner, & Ross, 1976). Scaffolding is temporary, allowing the student to gradually become more sufficient as external support is decreased. Through interaction with others, the student learns to solve a problem and then internalizes the help they have received to solve other problems (Vygotsky). In typical reading instruction, scaffolding occurs when teachers employ specific strategies to help students to comprehend a story that has been read or to decode words. Findings from this case study suggest that students may benefit when teachers scaffold word-recognition instruction by assisting students in sounding out Spanish syllables by phonemes when students cannot identify syllables quickly while decoding a word. Scaffolding may also be beneficial when going from sounds to letter-writing strategies (e.g., teacher segments and uses phonemic awareness as a framework for writing), as used by teachers in this study, in which students were prompted through phonemic awareness activities to attend to individual phonemes within syllables before writing letters to spell words in Spanish.

Teachers may also correct word-reading errors by directing students' attention to the individual sounds within syllables or by prompting students to manipulate vowels within syllables when reading or writing words. Lastly, one learns from this study and others that phonemes may be beneficial when scaffolding instruction for struggling readers (González et al., 2000; Signorini, 1997).

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Endnote

¹ Phonological recording is the process of sounding out and blending. It involves transforming spellings of words into pronunciations by using grapheme–phoneme knowledge (letter–sound correspondence) and then searching the lexicon to find a word that matches the pronunciation (Ehri, 1991).

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Appendix

Elements of Word Identification Instruction

Note. Domain I has been omitted because it was not useful in this study.

Domain II: Teacher Prompts for Word Identification Strategies During Reading of Connected Text (At Least at the Sentence Level)

Use of context

1. *Makes sense?* Teacher asks student what word would make sense, or if the word the child has chosen makes sense.
2. *Sounds right?* Teacher asks child what word would sound right, or if the word the student has chosen sounds right. This may be related to meaning or syntax.
3. *Check picture.* Teacher prompts the child to look at the picture.
4. *Minimal letter(s) plus context.* Teacher asks student to look at the first letter or letters (no more than two letters), start the word, and think about what would make sense or to look at the picture.

Sounding out

1. *Teacher tells/teaches sounds; models sounding out.* Teacher supplies, teaches, or prompts for one or more phonemes to assist student in sounding out, without telling the entire word; or the teacher models sounding out and blending.
2. *Sounding out/teacher prompts at least some sounds.* Student is told to sound and blend. If immediately after sounding out the word, the student is prompted to read it as a unit, this is considered the final stage of sounding out, not sight word reading.
3. *Silent sounding out.* Student is told to sound out the word in his or her head and read the word.
4. *Flexing.* Child is prompted to flexibly try different letter sounds.

Global visual strategies

1. *Phonics statement/rule.* Student is given a phonics statement (e.g., “There is a silent E at the end of the word.”).
2. *Sight recognition (memory).* Teacher asks student to recall sight word (e.g., outlaw word, etc.); includes “Read it with your finger,” as long as this is not the immediate product of sounding out a word.
3. *Locate words in text.* Student is asked to locate words in the text during or after reading.

4. *Mouth ready?* Student is told to “get mouth ready,” feel the sound in the mouth, or to put the sound on the lips.
5. *Look right? Make it match.* Teacher asks student what word would look right, or if the word the student has chosen looks right, or tells the student to make it match what is in the book.

Analogy strategies

1. *Little word.* Student is asked to look for a little word in the big word.
2. *Link to a known word.* Teacher prompts student to think of another word that is similar to the target word, using a known word to read an unknown word.

Word given

1. *Teacher tells.* Teacher tells the word to the student.
2. *Teacher models/reads a portion of text.* Teacher reads to the student a portion of the text that the student has not previously read correctly.
3. *Other child tells.* Another student tells the word.

Domain III: Strategies for Identification of Words in Isolation

Sounding out

1. *Teacher tells/teaches sounds; models sounding out.* Teacher supplies, teaches, or prompts for one or more phonemes to assist student in sounding out, without telling the entire word; or the teacher models sounding out and blending.
2. *Sounding out/teacher prompts at least some sounds.* Student is told to sound and blend. If immediately after sounding out the word, the student is prompted to read it as a unit, this is considered the final stage of sounding out, not sight word reading.
3. *Silent sounding out.* Student is told to sound out the word in his or her head and read the word.
4. *Flexing.* Child is prompted to flexibly try different letter sounds.

Global visual strategies

1. *Phonics statement.* Student is given a phonics statement.
2. *Model sight recognition (teaches words).* Teacher directly teaches words as whole units (sight recognition).
3. *Sight recognition.* Teacher asks student to recall sight words.
4. *Mouth ready.* Student is told to “get mouth ready,” feel the sound in the mouth, or to put the sound on the lips.
5. *Look right? Make it match.* Teacher asks student what word would look right, or if the word the student has chosen looks right, or tells the student to make it match what is in the book.

Analogy strategies

1. *Little word.* Student is asked to look for a little word in the big word.
2. *Link to a known word.* Teacher prompts student to think of another word that is similar to the target word, using a known word to read an unknown word.
3. *Make and read new word.* Student is asked to change letters in a known word and to read the new word made as a result of the change. NOTE: This is a decoding task. The teacher does not give the word, but tells the student to change specific letters or sounds to form a new word.

Word given

1. *Teacher tells.* Teacher tells the word.
2. *Other child tells.* Another student tells the word.

Domain IV: Strategies for Identification of Words While Encoding/Spelling

Sound to letter strategies

1. *Teacher segments.* Teacher says the word slowly or segments phonemes so that the child can hear the sounds in order to write or make the word.
2. *Child segments.* Student is told to say the word slowly or to segment phonemes in order to hear the sounds in the word in order to write or make the word. NOTE: This does not include practice in phonemic awareness skills that is not done to facilitate recording phonemes in words.
3. *Prompt letter–sound.* Teacher prompts the student for the letter that makes a specific sound in the word in order to scaffold the writing of a word.
4. *Say word and record.* Student is told to say the word (not segmented) and to record phonemes, either by writing them or by making the word with magnetic letters or some other tools. Code ONLY if the child is told to say the word before writing it.
5. *Framework used to scaffold.* Teacher supplies a framework to scaffold the segmenting and recording of the phonemes in the word.
6. *Phonics statement.* Child is given a phonics statement.
7. *Segment in head and write letters.* Student is told to segment the word in his or her head (silently) and to record the letters—like “silent sounding out.”

Analogy

1. *New words from other words.* Forming new words by analogy to known words or word parts (e.g., “Make it say _____”). NOTE: This is an encoding activity task and is different from having a student change letters in a known word and read the new word produced. In the encoding task, the teacher supplies the word and the student must change letters to make the new word.
2. *Like another word/starts like another word.* Student is told that the word is like or starts like another word that is known.

Visual memory

1. *Repeated writing/write from a model.* Repeated writing of words, especially high-frequency words, or the student is told to write a word that appears in print that is in front of him or her.
2. *Look-study.* Student is told to look at the word and study the word, and spell or write the word without looking back at it. This includes making a word with magnetic letters, mixing it up, and making it again. Also includes reading a sentence or word list, covering it up, then writing it.

Word given

1. *Teacher tells/shows.* Teacher tells or shows how to write the word.
2. *Teacher tells/shows part.* Teacher tells or writes part of the word—including supplying unknown letters.
3. *Other child tells.* Another student tells or shows the word.
4. *Word wall.* Student is told the word is on the word wall.

Other

Try that again/check it. The student is told to check the word, be sure it looks right, or to try it again. NOTE: This is not coded under sight word reading.

Note. From *Word Identification Strategies in Two Early Reading Intervention Models*, by C. Denton, P. Mathes, & J. Anthony, June 2002, paper presented at the meeting of the Society for the Scientific Study of Reading, Chicago.