# Bilingual Means Two: Assessment Issues, Early Literacy and Spanish-speaking Children 

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#### Abstract

This paper will discuss issues in assessment and development of early literacy in children who are twolanguage learners. Included in the paper are summaries of specific research studies that address each of the identified issues. Specifically, this paper will address the following concepts:


- Assessment for two-language children in the U.S. requires a positive schema around how two-languages interact in young children in the U.S. Assessment must combine concepts known in the first language with concepts being learned in the second language (Grosjean, 1989; Escamilla, 1998).
- Assessment for two-language children must consider how two languages interact. Research conducted by Escamilla, Andrade, Basurto \& Ruiz (1996) on 282 first-grade children in Arizona, Texas, and Illinois demonstrated that children who are emerging bilinguals in English and Spanish regularly use two-languages in the following tasks: Letter Identification; Word Tests; Writing Vocabulary; Text Reading. Further, in daily writing lessons, students frequently use two languages.
- There are differences, as well as similarities, in emergent reading and writing behaviors of Spanishspeaking children. Escamilla \& Coady (1998) studied writing samples in Spanish collected from 409 students in a K-5 elementary school with a bilingual program ( $n=225$ primary; $n=184$ intermediate). The following issues emerged from this research: for primary students, vowels emerge before consonants; primary students move from strings of letters to invented spelling in Spanish earlier than English speakers; primary and intermediate students stay in invented spelling stages longer than English speakers; English writing rubrics do not look at second language writing issues; English writing rubrics cannot help to guide instruction in Spanish. Differences in writing development can impact outcomes on grade level and state-standards-based assessments.
- Implications of the above concepts for literacy instruction for Spanish/English emerging bilinguals will also be presented.


## Introduction

Thirty years of research has established that the best entry into literacy is a child's native language (Clay, 1993a; Snow, Burns \& Griffin, 1998). For the more than six million Spanishspeaking children in U.S. public schools, this means that their initial literacy instruction should preferably occur in Spanish (Brown, 1992).

Literacy in a child's native language establishes a knowledge, concept and skills base that transfers from native language reading to reading in a second language (Collier \& Thomas, 1992; Cummins, 1989; Escamilla, 1987; Modiano, 1968; Rodríguez, 1988). Moreover, it has been
established that, for Spanish-speaking children, there is a high and positive correlation between learning to read in Spanish and subsequent reading achievement in English (Collier \& Thomas, 1995; Greene, 1998; Krashen \& Biber, 1987; Lesher-Madrid \& García, 1985; Ramírez, Yuen \& Ramey, 1991).

Aside from the research outlined above, an obvious advantage of learning to read one's native language and subsequently learning to read a second language is the potential to become biliterate - a skilled reader and writer of two languages. Work by Diaz \& Klinger (1991), Bialystok (1991), Hakuta (1986), and others has established that bilingualism and biliteracy enhance cognitive and metalinguistic abilities.

In view of these considerations, there is strong theoretical and empirical evidence to suggest that teaching Spanish-speaking children in the U.S. to read and write first in Spanish constitutes both sound policy and "best practice." There is widespread agreement that initial literacy instruction in Spanish is "best practice." However, there are numerous questions about applying this "best practice" theory to the real world of elementary schools. For example, should teaching methods used to teach reading and writing in Spanish mirror those used to teach reading and writing in English? Should we use pedagogy from Mexico and other Spanish-speaking countries to teach literacy in Spanish? How do we assess student progress in learning to read and write in Spanish? Are translated or reconstructed assessments valid and reliable? What are the issues related to the interaction of Spanish and English and the teaching of reading to Spanish-speaking children in the U.S.?

In addition to questions about praxis and pedagogy, discussions about teaching reading and writing, in Spanish, to Spanish-speakers in the U.S. must also acknowledge the linguistic and sociopolitical contexts in which these educational programs exist. It has been well established that Spanish and English do not share equal status in U.S. schools or in the larger U.S. society (Escamilla,1994a: Shannon,1995; Shannon \& Escamilla, 1999). In the U.S., Spanish is often seen as a problem to be overcome (Ruiz, 1988) and a significant barrier to achievement in school (Rossell \& Baker, 1996a; Porter, 1996; Unz, 1997). Further, there are others who think that teaching children to read in Spanish is a "waste of time" and that this practice interferes with learning to read in English (Rossell \& Baker, 1996b; Porter, 1996). Further evidence of the negative socio-political context in which Spanish/English bilingual education programs exist in the U.S. include: 1) the growth of the English-Only movement in the U.S.; 2) the passage, over the past 10 years, of several anti-immigrant initiatives in California, and the United States Congress; 3) the passage of Proposition 227 in California, which was an overt effort to eliminate bilingual education programs in the state; and 4) proposed initiatives in Arizona and Colorado which are similar in content to California's Proposition 227, and which would seek to eliminate bilingual education programs in those states. Crawford (1997) documents this legislative history. He, and others, maintain that these initiatives have been specifically targeted at Spanish-speaking Latinos.

In short, the socio-political context in U.S. schools and society is generally very negative toward Spanish-speaking children and their families. This negative context, in turn, affects teacher and school attitudes about the value of teaching children to read in Spanish. Further, it affects the potential positive impact that Spanish reading may have on English reading, and it ignores the potential value of biliteracy.

Ruiz (1988) demonstrated that U.S. schools and society tend to view language diversity as a problem. The language as a problem paradigm permeates school policies and practices related to teaching children who enter school speaking languages other than English. The language as a problem paradigm is particularly acute when applied to Spanish-speakers. While there is little doubt about the potential efficacy of teaching literacy in Spanish to Spanish-speaking children, there are numerous institutional barriers to complete and effective implementation of said programs. In this paper I will provide evidence that supports Ruiz's (1988) paradigm that language diversity is not a problem in learning to read. Rather, it is a resource and should be nurtured and developed as such. Continuous contact between English and Spanish in the U.S. means that children have daily opportunities to hear and use both languages. Consequently, Spanish-speaking students use their emerging knowledge of two-languages as they learn to read and write. Learning to read first in Spanish can provide an important source of cognitive support to learning to read in English and vice-versa. Unfortunately, I will also present evidence to suggest that, because of the prevailing paradigm that linguistic diversity is a problem, teachers and schools often view the interaction of two-languages as sources of confusion rather than sources of mutual support.

The low status of Spanish in U.S. schools and society has deterred schools and teachers from developing a thorough knowledge base related to how to best teach literacy in Spanish. In fact, most teachers who are charged with teaching children to read and write in Spanish have never taken formal coursework in methods of teaching reading in Spanish (Guerrero, 1997). The hegemony of English (Shannon, 1995), coupled with the low status of Spanish, has created a situation where most schools and teachers model Spanish literacy instruction and assessment on English instruction and assessment. They assume, without question, that "best practice" in English t practice" in Spanish literacy. I will argue that effective literacy programs for Spanish-speakers will not be effective unless they include and discuss how becoming literate in Spanish differs from becoming literate in English.

To illustrate the above, I will synthesize results of research that I have conducted, with others, around three major topics. These are:

- Deficit schema and attitudes toward childhood bilingualism;
- Literacy assessment and the positive interaction of Spanish and English; and
- Differences in emergent reading and writing behaviors between Spanish-and Englishspeaking children.


## Deficit Schema and Attitudes toward Childhood Bilingualism

A seminal study conducted by Grosjean (1989) suggested that bilinguals are not two monolinguals in one mind. Thus, their linguistic behaviors should not be compared to monolinguals of each language. That is, Spanish/English (or other) bilinguals have linguistic repertoires that are different from those people who are monolingual in Spanish and those who are monolingual in English. Grosjean goes on to explain that bilinguals can access either or both of their languages in many situations and often use both of their languages in problem-solving and communicative situations.

Bilinguals may have different domains of bilingualism. That is, they may know certain concepts in one of their languages, but not in the other. Grosjean does not see this as a problem,

The following examples from research I conducted in a school in Colorado (Escamilla, 1998) illustrate the contrast between Grosjean's view of developing bilingualism and the prevailing view of the same phenomena in U.S. schools. In this study (Escamilla, 1998), I examined school records of Spanish-speaking and other students in a bilingual program in an inner-city elementary school in Colorado. I examined files for students in grades K-3. I also interviewed teachers at the school to ascertain their interpretations of the contents of the folders. In all, 8 teachers were interviewed and 225 student folders were studied.

Children's cumulative folders contained information about student language proficiency in English and Spanish, about student outcomes on various achievement tests in English and Spanish (e.g. La Prueba and ITBS), and other district mandated assessments related to student progress (e.g. grade-level content assessments).

Findings from the study indicated that teachers viewed data on Spanish-speaking students, in their cumulative folders, as evidence of academic and linguistic problems associated with speaking Spanish and learning English as a Second Language. Many teachers expressed dismay at student achievement and expressed concern that most of their students were "low in both languages." The following examples illustrate this finding.

José was in Kindergarten at the time of the study. He had been in all-English Head Start for one year before Kindergarten and was finishing the school year in a bilingual Kindergarten. Results on the Kindergarten concept test (given in April) indicated that José knew three colors in Spanish and three in English. José's teacher stated that she felt these results indicated that José was limited in both Spanish and English. She went on to say that she felt that learning in two-languages was confusing José and that he would be better off if he were taught all in English. She stated that she was going to recommend he be transferred to an all-English first-grade.

In contrast, Bill, a monolingual-English student in the same class, knew five colors at the end of Kindergarten. In this case, the same teacher said he was an average student, doing "fine" and should have no problems in first-grade. If Grosjean's theory were to be applied to José, we would come to a different conclusion about José's development as a 5-year old. Using Grosjean's framework, José would receive credit for knowing six colors (3 in Spanish + 3 in English). However, because the school measures progress in each language separately (as if José were two monolinguals), he is viewed as not being well-developed in either language. José's knowledge of two words to express the same concept (in this case colors) is seen as a problem rather than a sign
of cognitive enhancement (Diaz \& Klinger, 1991). Using Grosjean's framework José knows more than Bill (3+3 is greater than $5+0$ ).

Xochitl was a first-grade student at the time of the study. Although she had started school as a monolingual Spanish-speaker, she received all her Kindergarten instruction in English as per the request of her parents. Xochitl did not do well in Kindergarten and, upon the recommendation of the school and the consent of the parents, was placed in a bilingual first-grade. At the beginning of first-grade, Xochitl took the colors, numbers and letters assessment. This is an informal district assessment. She did not know any letter sounds or names in Spanish, but she knew several letter names in English. The same was true for numbers 1-20. She knew how to count by rote, and knew 5 numbers in isolation, all in English. Her teacher noted that Spanish was Xochitl's stronger language, and that she was quite verbal in Spanish. However, since the few academic/school concepts that Xochitl knew were in English, her teacher did not want to confuse her by "starting over again" and teaching her these concepts in Spanish. She was placed in a bilingual class to get conceptual development in Spanish because she had not done well in an all-English Kindergarten. Ironically, her first-grade teacher decided learning in Spanish might confuse her and put her even farther behind. Therefore, she placed her in the "low" English group in the bilingual class. Xochitl was still getting all-English instruction in a bilingual class. The teacher perceived her academic problems as being related to her dominance in Spanish rather than her inappropriate instructional program in Kindergarten.

Leticia was a student who first learned to read in Spanish and was being transitioned to English reading at the end of 3rd grade. Her 3rd grade reading achievement scores indicated that she was in the 40th percentile in Spanish on the La Prueba and in the 25th percentile in English on the ITBS. Her teacher stated that she felt that Leticia was a poor reader in both languages and that perhaps learning to read in two-languages had caused her to become confused. Alfredo, a monolingual-English student in the same class, scored at the 40th percentile on the English ITBS. In his case, the teacher said that he was "doing fine," and was one of the best readers in her class. Most students at this school are well below the 40th percentile on the English ITBS. It is again noteworthy that Leticia's Spanish reading score is exactly the same as Alfredo's English reading score, and yet he is reported to be "doing fine" while Leticia is reported to be a poor reader in two languages. The teacher takes no notice and makes no comment about the fact that Leticia is an emerging biliterate.

Results of this study illustrate the pervasive view that young children's knowledge of two languages poses problems in academic and linguistic development. Further, this negative schema related to the development of two-languages in young children results in making poor instructional decisions for children who are developing bilinguals. In the case of José, the Kindergarten teacher decides that all-English instruction will be better for him than continued opportunities to develop in Spanish. In the case of Xochitl, the teacher decides since Xochitl has only received English instruction, Spanish instruction in first-grade will only confuse her and cause her to fall farther behind. In the case of Leticia, the teacher decides that she is a poor reader in two-languages. She makes no mention of the fact that Leticia is developing reading skills in two-languages.

Teachers in this study were all bilingual in Spanish and English, although most were not native Spanish-speakers. They were all adamant about their belief in the value of instruction in Spanish. They all devoted two hours daily to the teaching of reading and writing in Spanish. They were proud to be bilingual teachers; they worked hard, and all seemed to genuinely like children.

However, although they stated that they believed in the theory that Spanish literacy instruction is beneficial to young emerging bilinguals, their practice indicated that they have internalized a deficit notion of emerging bilingualism. Ironically, the very teachers who are responsible for teaching these young Spanish-speakers to read and write in Spanish are the same ones who are conflicted and concerned that learning in two-languages may be confusing students and may be limiting their academic development.

An important prerequisite to developing "best practice" programs for teaching literacy in Spanish must include the development of positive schema in our bilingual teachers related to how to interpret and observe the development and usage of two-languages in young children learning two-languages. It is difficult to embrace the teaching of literacy in Spanish if Spanish literacy is perceived as a source of confusion (a problem to be overcome) rather than a source of support (a resource that enhances cognitive development). In short, we must change the paradigm of language as a problem to one of language as a resource, and we must start with our own bilingual teachers. Grosjean's framework is a nice beginning.

## Literacy Assessment and the Positive Interaction of Spanish and English

In 1989, I began research with four colleagues in Arizona to reconstruct the English Reading Recovery program into Spanish (Escamilla \& Andrade, 1992; Escamilla, 1994b; Escamilla, Andrade, Basurto, \& Ruiz, 1996; Escamilla, Loera, Rodríguez \& Ruiz, 1998). As we began this research, our intent was simply to create an equivalent program in Spanish primarily for use in Spanish/English bilingual education programs in the U.S. Over the course of the past 12 years, our work in this reconstruction has produced many unanticipated, but important, findings. Specifically, our work has demonstrated that children who are emerging bilinguals in Spanish and English regularly use two-languages simultaneously in reading assessment and instructional situations. Further, they use both English and Spanish even when they have only had access to formal instruction in Spanish. Moreover, our research indicates that usage of both Spanish and English in literacy events is not a source of confusion, but one of support. The following examples illustrate these findings.

As we began to reconstruct Reading Recovery in English into Descubriendo La Lectura in Spanish, one of our first undertakings was to create a Spanish Observation Survey that would parallel the English Observation Survey (Clay, 1993b). We first reconstructed the six English observation tasks from English to Spanish and then conducted validity and reliability tests on the reconstructed Spanish observation tasks (Escamilla, Andrade, Basurto, \& Ruiz, 1996). Validity and reliability tests conducted on the six observation tasks from English Reading Recovery included: 1) Letter Identification; 2) Word Tests; 3) Concepts About Print; 4) Writing Vocabulary; 5) Dictation; and 6) Text Reading. Validity and reliability tests were conducted on 282 first-grade children in Arizona, Texas and Illinois during the 1991-92 school year. All children in the study were native Spanish-speakers who were learning to read and write in Spanish and were learning English as a Second Language.

As we started to analyze the data from the validity and reliability study, we observed that the majority of children in the study were systematically using both English and Spanish to address items on the observation tasks. Further, the use of two-languages, in the overwhelming majority of cases, was appropriate in the context of the assessment, and was observed to be a source of support and not confusion. The following examples will serve to illustrate this finding.

The first task of Identificación de Letras (Letter Identification) seeks to observe what children know about letters, sounds of letters and beginning sounds in words. Children are shown a letter and asked if they can name the letter, a sound it makes or a word that starts with that letter. Many children responded to this item using both English and Spanish. Examples include the following:

- Teacher shows student the letter 'S.' Student responds, "La letra es ese, el sonido es S-S-S-S-S, y como Superman." (The letter is s , it makes the sound $\mathrm{s}-\mathrm{s}-\mathrm{s}-\mathrm{s}$, and it is like "Superman.")
- Teacher shows student the letter 'Q.' The student does not know either the name of the letter or the sound it makes, but says, "Ah, como Qtips, ¿verdad maestra?" (like Qtips right teacher?).
- Teacher shows student the letter 'P.' The student says, "Esta es la P (pronounces P in English)", and then goes on to give the sound p-p-p, and the word, pájaro, in Spanish.

Of the 282 children in the validity and reliability studies, 190 (over 67\%) used both English and Spanish when they were responding to various items on the letter identification tasks. With very few exceptions all of the responses were appropriate, logical and matched the letter being assessed.

The second task on the Instrumento de Observación (Observation Survey) asks children to read a list of 20 high frequency words. This task is known as the Prueba de Palabras (Word Test). These lists include words that can be read either in English or Spanish and that have meaning in both languages. These words include the following:

1. come
2. me
3. son

As with the Letter Identification task, significant numbers of children read these words using the English, rather than the Spanish, pronunciation. Again, it must be noted that these results are most likely attributable to the continuous, daily contact that Spanish-speaking children in the U.S. have with English. The two-languages are in constant contact, and it should not be surprising that children use both languages as they approach academic learning.

The third task on the Observation Survey in which we noted significant use of both English and Spanish was in the Prueba del Vocabulario de Escritura (Writing Vocabulary) task. In this task, children are given 10 minutes and asked to write down all of the words that they know. If they have difficulty thinking of words to write, they are given prompts. For instance, they may be asked if they can write their names or the names of their friends, or the names of foods, etc. Two significant, albeit unanticipated, findings resulted from analyses of children's writing on this task.

The first is that, like Letter Identification, over 200 children (70\%) used English words in their lists of words they know how to write. Some words came from environmental print in classrooms (e.g. flag), and others came from other sources in the larger society (e.g. Kmart). The second, and more interesting finding, was that of code-switching responses. A code-switching response is one that is written in one language but prompted or read in another. For example, the teacher prompts, "Sabes escribir mamá?" (Do you know how to write mamá?). The child says, "Sí" and then writes
the English word, "mom." Other examples include children saying, "Yo sé escribir te quiero," (I know how to write "te quiero"), and then they write, "I love you" in English, or "Yo sé escribir tu" the number 2. In all cases the children were thinking and talking in Spanish and writing in English. However, in all cases, the words fit with the child's concept of the written words to express their developing oral languages (Spanish/English).

Examples such as those listed above indicated that students were using both English and Spanish to demonstrate their emerging knowledge about reading and writing. Further, use of both languages did not appear to be a source of confusion for these children. Children growing up in settings where two-languages such as Spanish and English come into contact use both languages to make sense of their world. Evidence from these studies indicates that these two-languages in contact do not pose problems in learning to read and write.

The last observation task is titled, Análisis Actual del Texto (Text Reading). On this task children are asked to orally read stories and books while teachers take running records of their reading behavior. Teachers analyze running records to note how children are using various cues to read and understand text. As we developed the Observation Survey in Spanish, we found it necessary to create special annotation conventions for children who used both Spanish and English cues as they were reading. Consider the following three examples:

- Child reads: Tiene un sombrero purple. (He has a purple hat).
- Text says: Tiene un sombrero morado. (He has a purple hat).

In the above example, the child was using meaning cues from English (looked at the picture of the purple hat in the book), at the same time, s/he was using structural cues from Spanish (a noun proceeds an adjective).

In other cases, children used both meaning and structure cues from English and applied them to the Spanish reading situation. They did this at the same time that they were using structure and meaning cures from Spanish. For example:

- Child reads: Tiene un purple sombrero. (He has a purple hat).
- Text says: Tiene un sombrero morado. (He has a purple hat).

In the above example, the child used meaning and structure cues from Spanish to read the words "tiene" (present tense verb in the third person) and "un" (masculine indefinite article to match sombrero) as well as the words purple and sombrero. In this case, the child used the English structure of adjective before noun when reading purple sombrero.

Yet another example which demonstrated the use of two languages in reading stories involved using meaning from English, and structure and visual cues from Spanish.

- Child reads: Tiene un sombrero red. (He has a red hat).
- Text says: Tiene un sombrero rojo. (He has a red hat).

In this case, the child used meaning from English (red) and structural and visual cues from Spanish (noun before adjective and visual structure of the word rojo).

The studies reported above were not designed to look at languages in contact. In fact, our sole purpose was to create a valid and reliable Observation Survey in Spanish. However, results of our studies indicated that we could not create a valid and reliable Observation Survey for Spanishspeaking children in U.S. schools without considering and including the many ways that English and Spanish interact in the minds of young children who are simultaneously learning twolanguages. Further, there was absolutely no evidence in any of our work to indicate that these two languages in contact were sources of confusion for children. In the majority of cases, the twolanguages provided sources of support.

So pervasive was the use of two-languages by children in the study that we decided that the scoring protocols must be revised to accommodate the simultaneous use of two-languages. Therefore, in the scoring protocols for the examples provided above, an English response that was logical and fit with the concept being assessed was considered to be a "correct" response. Consistent with Grojean's (1982) framework, we considered a child's knowledge base related to these observation tasks to be inclusive of their knowledge and concepts in Spanish and their related knowledge and concepts in English. As an aside, our data also convinced our colleagues in English Reading Recovery to revise the English response protocols to consider responses given in foreign languages to be correct if they were appropriate to the concept being assessed.

As teachers in the U.S. teach children to read and write in Spanish, it is important for them to be aware that Spanish-speaking children are in contact with both English and Spanish daily. Therefore, they will most likely use both English and Spanish when they are reading and writing, and that they will use English words and cues as they read and write in Spanish even if they have not had formal instruction in English literacy. It is important that teachers understand these behaviors and accept them as normal and not problematic.

## Differences in Emergent Reading and Writing Behaviors between Spanish- and EnglishSpeaking Children

As discussed above, successful teaching of Spanish literacy to children in the U.S. must begin with a positive schema about emerging bilingualism coupled with a knowledge of how twolanguages interact as children are learning to read and write. In addition, effective literacy programs for Spanish-speaking students must consider that there are differences as well as similarities in emergent reading and writing behaviors of Spanish-speaking children. As a result of these differences, teachers should not assume that "best practices" in teaching English literacy n Spanish literacy instruction.

To illustrate the above, I present a contrast in views on the teaching of phonemic awareness and phonics between English-speaking children in the U.S. (Adams, 1990) and the work done on the teaching of phonemic awareness and phonics to Spanish-speaking children in Mexico (Vernon \& Ferreiro, 1999, 2000). Adams (1990) suggests that knowledge of letter names and ability to discriminate phonemes in an auditory way is the best predictor of success in first-grade. She summarizes research done on English speakers by saying: "Pre-readers' letter knowledge was the single best predictor of first-year reading achievement, with their ability to discriminate phonemes auditorily ranking as a close second" (pg. 36).

She goes on to state that knowledge of letters and phonemic awareness are pre-requisites to learning to read. In fact, she divides her book in such as way as to emphasize the difference between "pre-reading," which is called "Preparing to Read" (pg.46), and "beginning reading, which is called "Moving into Reading" (pg. 54). Phonemic awareness, in her view, should be taught in the pre-reading stage, and is best taught through games, songs and storybooks with students' oral language growth in mind. In short, this view of "best auditory and oral language development as prerequisites to reading and writing. Adams says: "To the extent that children have learned to "hear" phonemes as individual and separable speech sounds, the system will enhance their ability to remember or "see" individual letters and spelling patterns. To the extent that they have not learned to "hear the phonemes," the system cannot help

In contrast, Vernon \& Ferreiro $(1999,2000)$ suggest that, for Spanish-speaking students, phonemic awareness needs to be developed concurrently with learning to read and write. In their research, in Spanish, children's ability to benefit from systematic phonics/phonemic awareness instruction depended on the child's level of writing development. They conclude that the way children segmented spoken words was strongly related to their level of conceptualization about their writing system regardless of their age. In stark contrast to Adams, they conclude that phonemic and phonological awareness are not pre-requisites to reading, but are integral components of the reading process. As such, they are best taught in Spanish, in the context of reading and writing:
"If teachers encourage young children to write and to reflect on their writing, they will analyze speech. Oral communication alone does not demand conscious analysis of speech. Participation in language games may allow children to learn rhymes, but writing and reading are the only activities that require true phonological and phonemic awareness" (pg. $1)$.

From the above, it is clear that there are some important differences in "best practice" theory between English and Spanish. Unfortunately, in most states in the U.S., the teaching of Spanish reading is essentially parallel to the English reading curriculum (Durgunoglu, 1998). The very questionable underlying assumption is that what "works" for English, will "work" for Spanish. Adding to the above, research studies with Spanish-speakers in the U.S, (Escamilla, Andrade, Basurto \& Ruiz, 1996; Escamilla, 1999; Escamilla \& Coady, 2000) have demonstrated that there are major differences between emergent reading and writing behaviors of Spanish-speaking and English-speaking children. It is important for teachers and curriculum writers to be aware of these differences, and to write curricula that are compatible with how children best learn. Our research questions the notion that parallel reading curricula in English and Spanish constitute effective literacy instruction for Spanish-speakers.

Our research has indicated that, as Spanish-speaking children learn to write, vowels emerge before consonants in their writing. Research in the teaching of reading in Mexico (Escamilla, 1999; Ferreiro, Pellicer, Rodríguez, Silva \& Vernon, 1994) also suggests that vowels are best taught before consonants in beginning reading programs. This is the reverse of the way that English reading programs structure the teaching of letters and letter sounds. In English, consonants emerge before vowels. Thus, the teaching of consonant letters and sounds is done before teaching vowels. The following three examples (Figure 1) of Spanish-speakers learning to write in

Kindergarten will illustrate the importance of vowels in emergent Spanish writers. It is important to note that all three of these students are at a very early stage in their writing development. All three were in different instructional situations when writing samples were collected. Beatriz was taking the writing vocabulary assessment. Nubia was taking dictation, and Eduardo was responding to a writing prompt about a timid dinosaur. In all of these divergent writing situations, student emergent writing samples clearly show the predominance of vowels. Further, in many Spanish reading programs, children are taught vowel sounds first in beginning reading. They are then taught to combine vowel sounds with consonants to form syllables.


Nubia
eunaoao


Figure 1

The syllable forms the cornerstone in teaching children to begin to de-code words in Spanish (Ferreiro, Pellicer, Rodríguez, Silva \& Vernon, 1994). It is possible that beginning Spanish reading programs that are based on English literacy instruction ignore or delay the teaching of vowel sounds to students, thereby raising a serious concern about parallel literacy instruction. Work on beginning reading and writing in English (Adams, 1990; Cunningham, 1995) has established that children's reading and writing development in English is enhanced when they become aware of certain patterns in the English language. One such pattern is known as on-set and rime. An example of on-set and rime is:

$$
\begin{aligned}
& \text { An (rime) } \\
& \mathrm{C}+\text { an }=\operatorname{can}(\text { on-set }+ \text { rime }) \\
& \mathrm{F}+\text { an }=\text { fan }(\text { on-set }+ \text { rime }) \\
& \mathrm{R}+\text { an }=\operatorname{ran}(\text { on-set }+ \text { rime }) \\
& \mathrm{T}+\text { an }=\tan (\text { on-set }+ \text { rime })
\end{aligned}
$$

For English speakers, knowledge of on-set and rime is thought to facilitate both the decoding of words in reading, and learning to spell and write words correctly. The example of Mark's writing below (Figure 2) illustrates the utility of this pattern in English. Mark uses on-set and rime to correctly write and spell the words at, bat, hat, sat, fat, mat, and rat. It should also be noted that on-set and rime in English involves changing the beginning of a word.

Research on Spanish-speaking children (Escamilla, Andrade, Basurto, \& Ruiz, 1996; Escamilla \& Coady, 2000) indicates that Spanish-speaking children also use patterns as they develop as readers and writers. However, the patterns they use are different from those used by English speakers. For Spanish-speakers, on-set and rime may not be as useful in literacy development as it is in English. The examples below (Figure 3 and Figure 4) of children's writing in Spanish will illustrate this point.

In both of these writing samples, rather than using on-set and rime to see patterns in words, the students changed the end of the word rather than the beginning. Cristina, for example, wrote un, una, uno, unos, unas, va, van, vas, gato, gata. Armida used the very same patterns (changing word endings). She wrote 'come,' 'comemos,' 'comen,' 'como,' and 'es,' 'ese,' 'esta,' 'esto.' The examples illustrate what the majority of students in the study did when given this task. Writing patterns, it seems, develop differently in Spanish than English, once again raising questions about the efficacy of English-based reading programs delivered in Spanish.

Several additional concerns, related to parallel Spanish/English literacy programs, need to be discussed. The first is that English-based literacy programs are focused on literacy issues that are specific to English. Gersten \& Jiménez (1998) and Goldenberg (1998) believe that the notions of universal or parallel literacy programs are based on logic that both English and Spanish are alphabetic languages, and therefore share many conventions and traditions. They go on to say, however, that aside from logic, there is little actual research to support the universal application of literacy teaching between Spanish and English.


Figure 2


Figure 3
pla sencia Armio a mi dila Las te Leame se es ese ceriy estu este Mesta para perroua para some como comen comemos

The research cited above would suggest that, with regard to language specific literacy teaching, there are many important differences between Spanish and English in the ways that children learn to read and write. It is important that literacy programs acknowledge and outline these differences in order to help teachers and schools develop "best practice" literacy programs in Spanish. To further elaborate on these differences, I present findings from a recently completed research study (Escamilla \& Coady, 2000). This study analyzed writing samples of 409 children in a K-5 elementary school with a Spanish/English bilingual program ( $\mathrm{n}=225$ primary; n= 184 intermediate students).

Findings from this study indicated that most Spanish-speaking students were moving quickly from emergent writing behaviors (e.g. strings of letters) to more sophisticated stages of writing such as phonetically based invented spelling. Ricardo's writing sample (Figure 5) represents the "typical" first-grade student in this study. Ricardo produced this writing sample as a result of taking dictation. It was collected in March of his first-grade year.

When the sample was collected, Ricardo had mastered many of the sound/symbol relationships in Spanish, and he had developed a fairly good sense of spacing between words in Spanish. Spacing issues are difficult for some Spanish-speaking children because they tend to divide oral sounds by syllables rather than words.

In Ricardo's sample, he wrote 'aparar' as one word and it is two words ('a parar'), and 'bamosa' as one word when it is two words ('vamos a'). Because many letters or combinations of letters make the same sound, in Spanish, Ricardo had many spelling errors. For example, he used b when he needed 'v' (e.g. 'byene' for 'viene,' 'ba' for 'va' and 'bamos' for 'vamos'). Similarly, he used ' $y$ ' when he needed 'i' (e.g. 'byene' for 'viene'). These letters make the same sound in Spanish. He used 'c' for 'qu' illustrating his knowle
as 'qu' (e.g. 'aci' instead of 'aquí'). Ricardo's writing sample was typical of Spanish-speaking first-graders in the study. However, it differed greatly from invented spelling patterns used by English-speaking first-graders. Issues with 'b/v,' 'y/I,' and hard 'c' and 'qu' are language specific to Spanish. English reading and writing programs translated into Spanish do not provide direction for teachers as to how they should address these issues in Spanish literacy instruction.

There are other issues that distinguish writing development in Spanish from English. Consider Olivia's writing sample (Figure 6). Olivia was at the end of 2nd grade when this writing sample was collected. In this writing sample, Olivia was asked to write a story about a timid dinosaur.

Olivia's writing presents a more confident and competent writer than Ricardo. She has progressed beyond the invented spelling stages to more standard spelling, and yet her writing has some issues that are similar to Ricardo. For example, her spelling errors also resulted from using letters that have the same sounds in Spanish. Like Ricardo, she confused 'b/v' and 'll/y' (e.g. 'causavan' for 'causaban' and 'yorar' for 'llorar'). Further, she did not put an accent mark over the ' i ' in 'sentía' and one is required. Spelling rules with regard to ' $\mathrm{b} / \mathrm{v}$ ' and ' $11 / \mathrm{y}$ ' and rules about when and how accent marks should be taught are specific to the Spanish language. They constitute major issues in learning to write in Spanish and again are not likely to be included in parallel English/Spanish writing programs.

Ricardo


Figure 5

Olivia

el dinosaurio sentia mal Cundo sus amigos le causavan yorar.

Figure 6

Added to the above examples, it is noteworthy that the language-specific issues related to teaching reading and writing in Spanish increase over time. Alejandra's writing sample (Figure 7) will illustrate this point. At the time this writing sample was collected, Alejandra was finishing 3rd grade. She also wrote a story about a timid dinosaur.

Like Ricardo and Olivia, Alejandra used ' $b$ ' when she needed ' $v$ ', and ' $s$ ' when she needed 'c' (e.g. 'bes' instead of 'vez'). She also used 's' when she needed c (e.g. 'asian' instead of 'hacián'). For students who speak Mexican dialects of Spanish, ' $c$,' ' $s$ ' and ' $z$ ' make the same sound. Further, in Spanish, ' $h$ ' is a silent letter and many students omit ' $h$ ' from the beginning of words because it is silent. In Alejandra's writing she wrote 'abia,' 'agan,' 'asian,' all words that

Alejandra was using more sophisticated forms in her writing, especially with regard to certain verb tenses, she was also omitting accent marks from many words that needed them (e.g. 'asian' instead of 'hacián'). Alejandra, as Ricardo, used her knowledge of syllables to help her write. She joined together many syllables that needed to be separate words. For example, 'aelnolegusta' was written as one word when it should be five words, 'a él no le gusta.' Again, these writing issues are language specific to Spanish, and very different from writing issues of English speakers. Teachers who are assigned to teach reading and writing in Spanish must know when and how to teach these conventions.

Writing samples collected from intermediate students provided additional evidence that differences between writing development in English and Spanish do not diminish across time. In fact, they increase. The writing of two fifth graders (Figure 8 and Figure 9) further document the language-specific nature of learning to write in Spanish. At the time of the study, both Juan and José were finishing 5th grade. They were asked to write a story about their "Best Birthday Ever."

Because they are 5th graders, Juan and José are writing longer, more sophisticated stories than students in lower grades. The content of their stories is interesting and presented in a wellorganized and logically sequenced way. These samples were "typical" of fifth graders in the study. However, both samples show many of the same mechanical issues that characterize the writing of younger students. In Juan's sample, he used ' $b$ ' when he needs ' $v$ ' and vice versa (e.g. 'visicleta' for 'bicicleta,' and 'bente' for 'veinte'). He also used 's' when he needed 'c' ('visicleta' instead of d 'll' when he needed ' $y$ ' ('lla' for 'ya' and 'callías' for 'caías'). Like younger students, he still used syllables in his writing, which caused him to run words together ('ala' instead of 'a la,' and 'alas' instead of 'a Las'). Juan used many words that required accents or tildes, but he did not place accents on these words (e.g. 'día,' 'tío,' 'había,' and 'cumpleaños'). Like his younger peers, he confused the hard and soft sounds of the letters 'c' and ' g '. For example, he spelled ' $c$ ' instead of a 'qu,' and 'juge' instead of 'jugué.'

José made errors similar to Juan. That is, he did not put accent marks on many words that required them (e.g. 'día,' 'después,' 'pegué,' 'quebré'). He used 'c' when he needed 'qu' ('cebrar' uebrar'), and ' g ' when he needed ' gu ' ('pege' for 'pegué'). He also had words that ran together as a group of syllables ('derato' for 'de rato’). In short, while José and Juan are writing longer and better stories, they continue to have the same issues with Spanish writing conventions that younger students have. When schools use parallel literacy programs, they generally also use parallel assessment programs. This means that writing rubrics created to judge the writing of English-speaking students are often adapted without revision into Spanish. In English, writing conventions and content are generally given equal weight in intermediate grades. Parallel
assessment presents the same types of problems for Spanish-speakers that parallel instruction presents.

Alejendres


Figure 7

Juanita

El Mejor cumslanoos de nunca un dia de mi cumplanos me regalaron un play straston con dos controles is dos juegos tambien una risucleta de montaña y so estaba mus beliz era el mejor dia de nunca is mu two me dro bente blares y me llevaron al elechis Lespues kuis, a jungle simer y juge a trrar las pelotos a la canasta del bascettsall y habia un suente y brincamas y me bentaron la cara de raton y en un resvalatero de pelatas calliras en pelotas y nebiervon coras pana jugon a las macincs y lla se habia sido noche y los Luinas ala casa el siguente día los duinoy alas vegas nevaka y estaba muy diverbibo habia un mono mus oyande $y$ en

Figure 8

Jose -

Cl Mejor sompleaños de nunca Uln dia yo fui a un.
cympleango y primero estaba aburds. Luego comimas carne, aroz, Mole to matienom tomasphos soda. Derate fuimos paruló -yare y jugamos. Luco fuimpo a chicitos le plegata. Lueco yo le pegaron prymerciphe torla 14 le seiveron mucho dulces. 5 speus de eso fuymas para adentro ly not elieron una bolsa de dyle. Despues abtrierion los resalas y pstaban chidos 5 es pues not dieron pastel. uego nos frum comla casa y nos acostama.

In our study (Escamilla \& Coady, 2000) the same writing rubric was used to score Spanish writing and English writing samples. Writing standards in the rubric to identify proficient writers included the following criteria:

- several complex ideas;
- varying sentence patterns;
- complete sentences;
- evidence of logical sequencing;
- appropriate punctuation and capitalization; and
- correct spelling of at least $90 \%$ of the words in the story.

The majority of $5^{\text {th }}$-grade Spanish-speaking students were able to write stories that met all of the above criteria except for one (correct spelling). Even though they wrote stories with complex ideas, complete sentences and varying sentence patterns, neither Juan nor José were judged to be proficient writers in Spanish at the 5th grade. In both cases, because of their spelling errors, including lack of usage of accent marks, they were judged to be marginal writers. In the 5th grade, more than $60 \%$ of the Spanish writers were judged to be marginal rather than proficient, most because of spelling issues and accent marks. Had the criteria for correct spelling been omitted or revised, nearly $100 \%$ of the students would have been judged to be proficient. Additional concerns surfaced as a result of these findings. For instance, the use of English writing rubrics in Spanish may be making Spanish writers appear to be less competent than the really are. As a result, schools and school districts may conclude that it is not effective to teach Spanish-speaking students to read and write in Spanish. Without question, much more research is needed in this area. For example, research is needed to determine if it is appropriate to use writing rubrics and other assessments developed for English speakers in Spanish. Further, research is needed to determine if it is appropriate to assign equal weight to content and conventions for Spanish-speakers. It is possible that, because of the many letters and combinations of letters that make the same sound in Spanish, Spanish-speakers need to have rubrics that give more weight to content and less to conventions. English writing programs, and research on emergent writing in English are not useful in providing guidance for teachers who teach reading and writing in Spanish. Spanish literacy instruction requires that teachers know when and how to teach certain spelling concepts as well as the use of accents and tildes.

To conclude this section, it is difficult to know if issues such as 'b/v;' 'c', 's', from the beginning of a word; ' $11 / \mathrm{y}$;' and ' $\mathrm{y} / \mathrm{I}$ ' persist over time because Spanish-speakers stay in stages of invented phonetically regular spelling for so long, or if these patterns of writing persist because parallel Spanish and English literacy programs do not deal directly and explicitly with issues that are language specific to Spanish. Perhaps the answer is that both factors play a role in this development. Again, more research in this area is needed. However, the data presented above clearly indicate the need for a Spanish literacy program that is not a parallel English program, but a program that has been developed using the Spanish language as a frame of reference.

## Conclusions and Implications

This paper has attempted to raise three significant issues that may serve to impede the progress of Spanish-speaking students in U.S. schools who are learning to read and write in Spanish. These issues include:

- The pervasive view that language diversity is a problem to be overcome in school, rather than a resource to be developed;
- The lack of understanding on the part of teachers and administrators of how two languages come into contact and interact as Spanish-speaking children living in the U.S. learn to read and write; and
- The prevalent instructional practices that encourage teachers to teach reading and writing in Spanish the same way that they teach literacy in English.

The combination of these three factors and others have enormous implications for the outcomes that many districts and schools report with regard to the teaching of literacy in Spanish. Questionable attitudes and practices, such as those discussed in this paper, may negatively impact student achievement on literacy assessments in Spanish, thereby giving the impression that bilingual programs are not teaching children to read and write in either English or Spanish, and are therefore not effective (Rossell \& Baker, 1996a\& b; Porter, 1996). Negative schema, or the view that language diversity is a problem, influences teachers and schools to view emerging bilinguals as students who are "limited" in both languages, or as Grosjean (1989) says, "semilingual." This attitude is exacerbated when students mix languages or code-switch. The negative view about emerging childhood bilingualism runs counter to the research in this area (Hakuta, 1986; Goodz, 1994).

Research in childhood bilingualism has established that, because of sociolinguistic and other environmental factors, two-languages rarely develop at the same rate in emerging bilinguals. Further, all children learning two-languages simultaneously code-switch at some point. Whenever two-languages come into contact, code switching becomes a natural part of the communication patterns of a community and an individual. Critical to this discussion is the fact that language development in young children learning two-languages occurs at the same rate as children learning only one. That is, children learning two-languages develop vocabulary at the same rate as monolinguals, they develop and use phrases at the same rate as monolinguals, and they develop and use first words and multiword phrases at the same rate as monolinguals. Further, bilingual children show consistently greater and earlier awareness of language structure than monolingual children. The only difference is that young children learning two-languages frequently use both of their languages to communicate ideas and to demonstrate what they know. There is no evidence that the use of two-languages causes children to become confused.

Findings from research presented in this paper indicate that negative schema about bilingualism may cause teachers and administrators to view normally developing bilinguals as children who are confused by two-languages. It is more likely that schools and the larger society are confused, not the children. Unfortunately, the school's confusion often has negative consequences for children. Many emerging bilinguals are taken out of bilingual learning situations and placed in English-only situations in a misguided effort to reduce perceived sources of confusion.

It is critical that we work toward changing this very damaging view of emerging bilingualism as a "problem" into a more positive schema. Given the hostile socio-political climate towards immigrant groups, particularly those who are Latino and speak Spanish, this is going to be a very difficult mind-set to change. It is doubtful, however, that schools will ever be able to fully implement quality Spanish literacy programs if they are conflicted and worried that they are
confusing children by teaching them in two-languages, or if they think that bilingualism is retarding cognitive and academic development.

Research results discussed in this paper have demonstrated that children in the U.S. who are learning to read and write in Spanish are using both their knowledge of Spanish, as well as their knowledge of English, to emerge as readers and writers. Further, research results reported above indicate that, for the vast majority of children, the use of both English and Spanish in reading and writing situations was not a source of confusion. In fact, most children mixed languages in ways that demonstrated that they understood the relationships between Spanish and English. As with negative notions about emerging bilingualism, most schools and teachers had negative interpretations about the impact of code switching in literacy teaching and learning. As a result of these negative interpretations, their observations of two-languages in contact (in this case English and Spanish) led them to conclude that code switching is a "problem" in need of correction. As with bilingualism, the negative view of two-languages in contact frequently results in questionable interpretations of children's behavior. Not understanding the ways in which children positively use two-languages in learning to read and write may cause teachers and schools to see children as less competent academically than they, in reality, are.

It is interesting to note that many of the questionable instructional decisions are made by teachers who state that they believe in teaching students to read in Spanish. However, their practices and behaviors often differ from their stated beliefs. It is important that teachers learn to more accurately observe the ways in which English and Spanish positively interact in children who are in bilingual learning situations and who are learning to read in Spanish.

Research findings presented above raise serious questions about the implementation of parallel English/Spanish literacy programs. Spanish literacy programs should be based on what is known about how to bring Spanish-speaking children to literacy. Parallel instructional programs combined with assessments that have been applied directly from English to Spanish without addressing validity and reliability issues may impede the literacy development of Spanishspeaking students, and negatively influence student outcomes on literacy assessments. It appears to be the case that most Spanish literacy programs in the U.S. are not grounded in theories about teaching reading in Spanish, but rather are based on pedagogy with regard to teaching English literacy (Escamilla, 1999).

To be sure, literacy instruction in any language should include more than teaching decoding and skills. Effective literacy programs, in both Spanish and English, should include a balance between teaching skills, developing comprehension, learning to respond to and appreciate literature, reading to learn, and reading for pleasure. Writing programs should include teaching students to write for a variety of audiences, using a variety of genres, such as narratives and poetry, and also include teaching students to write research reports and take notes. Research reported in this paper has been limited to issues related to the teaching of skills in Spanish reading and writing. However, even with this narrow focus, the research has illustrated that there are numerous language-specific differences between learning to read and write in Spanish and learning to read and write in English. Teachers, administrators and curriculum developers must take these differences into consideration if literacy instruction in Spanish is to have the maximum impact on the academic development of Spanish-speaking children. The number of Spanish-speaking students in the United States continues to grow rapidly. Research and experience have shown that the best entry into literacy for these children is Spanish. However, there are serious obstacles that currently
impede implementation of "best practice" literacy programs in Spanish. Among impediments to full implementation of "best practice" literacy programs is the issue of teacher preparation. Most bilingual teachers have not had opportunities to take methods courses that focus on teaching reading in Spanish, nor have they had opportunities to learn formal academic Spanish (Guerrero, 1997).

If policy makers and practitioners are serious about implementing quality literacy programs in Spanish then it is important that the issues raised above be thoroughly addressed. Teachers need encouragement and support to teach children in Spanish, and they need models, examples and tools that enable them to create exemplary biliterate learning environments for the children they teach. They need opportunities to form strong professional bi-national networks with other teachers. Policy-makers and curriculum writers need to provide direction and use research-based pedagogy to support schools and programs.

The goal of biliteracy for Spanish-speaking students in the U.S. is both worthy and attainable. However, if we are to achieve this goal, we will have to pay careful attention to developing skills and strategies in biliteracy in our students, and our educators. To achieve this goal will also require that we change attitudes about bilingualism, biliteracy, and the value of Spanish. Changes in attitudes must occur outside of schools as well as inside schools. To achieve the goal of biliteracy will require that we develop deeper and better understandings of how two-languages interact in Spanish-speaking children who enter our schools as emerging bilinguals. The attainment of biliteracy will require that Spanish literacy programs be grounded in a knowledge base of how the Spanish language works. Teaching children to read in Spanish is NOT the same as teaching children to read in English. It is both inappropriate and irresponsible to pretend that differences across languages do not exist. If fully implemented "best practice" literacy programs in Spanish are to become a reality in the U.S., practitioners, administrators, policy makers, researchers and curriculum writers must work together to achieve this goal. Spanish-speaking children in the U.S. deserve no less.

## References

Adams, M. (1990). Beginning to read: Thinking and learning about print. Champaign-Urbana, IL: Center for the Study of Reading.

Bialystok, E. (1991). Language processing in bilingual children. Cambridge: Cambridge University Press.

Brown, A. (1992). Building community support through local educational funds. NABE News, 15(4-5), 11-26.

Collier,V. \& Thomas, W. (1992). A synthesis of studies examining long-term language minority student data on academic achievement. Bilingual Research Journal, 16(1-2), 187-212.
------------------------. (1995). Language minority student achievement and program effectiveness. Washington DC: National Clearinghouse for Bilingual Education.

Clay, M. (1993a). Reading Recovery in English and other languages. Keynote address presented at the West Coast Literacy Conference, Palm Springs, CA. Clay, M. (1993b). An observation survey of early literacy achievement. Portsmouth, NH: Heinemann.

Crawford, J. (1997). The campaign against proposition 227: A post mortem. Bilingual Research Journal, 21(1), 1-23.

Cummins, J. (1989). Empowering minority students. Sacramento, CA: California Association for Bilingual Education.

Cunningham, P. (1995). Phonics they use. New York: Harper \& Collins.
Diaz, R. \& Klinger, C. (1991). Towards an explanatory model of the interaction between bilingualism and cognitive development. In E. Bialystok (Ed.) Language Processing in Bilingual Children. Cambridge: Cambridge University Press.

Durgunoglu, A. (1998). Acquiring literacy in English and Spanish in the United States. In A.Y. Durgunoglu \& L. Verhoeven (Eds.), Literacy Development in a Multilingual Context: Crosscultural Perspectives. Mahwah, NJ: Lawrence Erlbaum Associates, 135-146.

Escamilla, K. (1987). The relationship of native language reading achievement and oral English proficiency to future achievement in reading English as a second language. Unpublished doctoral dissertation, University of California, Los Angeles.

Escamilla, K. \& Andrade, A. (1992). Descubriendo La Lectura: An application of Reading Recovery in Spanish. Education and Urban Society, 24, 212-226.

Escamilla, K. (1994a). The sociolinguistic environment of a bilingual school: A case study introduction. The Bilingual Research Journal, 18, 21-47.

Gersten, R. \& Jiménez, R. (Eds.) (1998). Promoting literacy for culturally and linguistically diverse students. Belmont, CA: Wadsworth Pub.

Goldenberg, C. (1998). A balanced approach to early Spanish literacy instruction. In R. Gersten \& R. Jiménez (Eds.) Promoting literacy for culturally and linguistically diverse students. Belmont, CA: Wadsworth Pub.

Goodtz, N. (1994). Interactions between parents and children in bilingual families. In F. Genesse (Ed.) Educating Second Language Children. Cambridge: Cambridge University Press.

Greene, J. (1998). A meta-analysis of the effectiveness of bilingual education. Claremont, CA: Tomás Rivera Policy Center. Available: http://ourworld.compuserve.com/homepages/jcrawford/greene.htm.

Grosjean, F. (1989). Neurolinguists beware: The bilingual is not two monolinguals in one person. Brain and Language, 36,3-15.

Guerrero, M. (1997). Spanish academic language proficiency: The case of bilingual education teachers in the U.S. The Bilingual Research Journal, 21(1), 25-43.

Hakuta, K. (1986). Mirror of language. New York: Basic Books.

Krashen, S. \& Biber, D. (1987). On course: Bilingual education's success in California. Sacramento: California Association for Bilingual Education.

Lesher-Madrid, D., \& García, E. (1985). The effect of language transfer on bilingual proficiency. In E. García \& R. Padilla (Eds). Advances in Bilingual Education Research. Tucson: The University of Arizona Press, 53-70.

Modiano, N. (1968). National or mother tongue in beginning reading: A comparative study. Research in the Teaching of English, II(1), 32-43.

Porter, R. (1996). The forked tongue: The politics of bilingual education. New Brunswick, NJ: Transaction Pub.

Ramírez, D., Yuen, S. \& Ramey, D. (1991). Executive summary and final report: Longitudinal study of structured English immersion strategy, early-exit and late-exit transitional bilingual programs for language minority children. (Contract No. 300-87-0156). San Mateo, CA: Aguirre International.

Rodríguez, A. (1988). Research in reading and writing in bilingual education and English as a second language. In A. Ambert (Ed.), Bilingual Education and English as a Second Language. New York: Garland Pub.

Rossell, C. \& Baker, K. (1996a). Bilingual education in Massachusetts: The emperor has no clothes. Boston: Pioneer Institute.

Rossell, C \& Baker, K. (1996b). The educational effectiveness of bilingual education. Research in the Teaching of English, 30(1), 7-74.

Ruiz, R. (1988). Orientations in language planning. In S. McKay \& S.C. Wong (Eds). Language Diversity: Problem or Resource? Boston: Heinle \& Heinle Pub.

Shannon, S. (1995). The hegemony of English: A case study of one bilingual classroom as a site of resistance. Linguistics and Education: An International Research Journal, 7(3), 177-202.

Shannon, S. \& Escamilla, K. (1999), Mexican immigrants in U.S. schools: Targets of symbolic violence. Educational Policy, 13(4), 347-370.

Snow, C., Burns, S. \& Griffin, P. (1998). Preventing reading difficulties in young children. Washington DC: National Academy Press.

Unz, R. (1997). Bilingual is a damaging myth. Los Angeles Times, Oct. 19.
Vernon, S. \& Ferreiro, E. (1999). Writing development: A neglected variable in the consideration of phonological awareness. Harvard Educational Review, 69(4), 395-415.

Vernon, S. \& Ferreiro, E. (2000). Writing and phonological awareness of Spanish-speaking kindergartners. Educational Research Newsletter. Cambridge, MA: Harvard Educational Research Newsletter, Feb. 1-2.

