

Language Maintenance in Hispanic University Students: Analyzing Written Competence

Deborah J. Hasson
Florida State University

1. Statement of the research problem

Results for the 2000 United States Census indicate that Hispanics not only have reached parity with African Americans in numbers as a minority group, but within the population of English language learners (ELLs) in schools, Spanish-speaking children far outnumber any other language group (Cisneros & Leone, 1995; U.S. Bureau of the Census, 2000; Viglucci, 2001). Instructional delivery models for ELLs range from no special or particular attention to the needs of non-English speakers to programs that include classes in both English and the students' native languages, reflecting a variety of bilingual or English for Speakers of Other Languages (ESOL) approaches, always with an emphasis on English language acquisition, even in maintenance-oriented programs. As ELLs have been involved in the English acquisition process, little attention has been directed toward what happens to their native/first language, nor what happens to them in either language once they complete their secondary education.

The studies that have examined the effects of schooling on students' native language (Cohen, 1982; Dodson, 1995; Hakuta & D'Andrea, 1992; MacGregor-Mendoza, 1999; Merino, 1983; Pease-Alvarez, 1993; Rodríguez, Díaz, Duran & Espinosa, 1995; Winsler, Díaz, Espinosa & Rodríguez, 1999; Wong Fillmore, 1991) have focused largely on preschool and elementary school children and adolescents in high school, with only one (MacGregor-Mendoza, 1999) involving college-aged students. Due to the young ages of most of the children in these reports, the aspect of competence in writing in the native language is sometimes overlooked as achievement is measured by vocabulary tests, translation exercises, language use reports, story retelling tasks, oral language and reading comprehension tests—all conducted orally. This apparent gap in the literature, the minimal research on post-high school young adults and the focus on language maintenance as an oral phenomenon, led to the following research question, which was part of a larger study on language maintenance in Hispanic young adults: Do Hispanic university students who participated in bilingual/ESOL programs in elementary school exhibit greater written communicative competence in Spanish than those who did not?

This study examined Spanish written competence of Hispanic university students in South Florida, using self-reported data on their perceptions of their ability to write in Spanish and holistic and analytic scores from a paragraph written in Spanish using "*La importancia de ser bilingüe*" (*The importance of being bilingual*) as a prompt. Students who had been enrolled in a bilingual education program or had taken classes for English learners in their elementary schooling were compared to students who had experienced an all-English curriculum to see if there was any difference between the groups with respect to their communicative competence in writing. Bilingual education and ESOL programs generally involve specialized education and language considerations for students that are not usually apparent in an all-English setting and curriculum.

2. Theoretical framework

This study linked the curricular program model of bilingual education with research conducted in the area of language maintenance in bilingual individuals, with an emphasis on written communicative competence in Spanish. The area of language maintenance and shift has emerged as a discipline in the last twenty years (Pan & Gleason, 1986) and has continued to grow throughout the last decade of the

twentieth century (García, 2003). Researchers have studied issues such as language maintenance, language shift, language loss, language attrition, language decay, and on a societal level, language death, from a variety of perspectives. Patterns have emerged on individual, family and community levels with respect to how bilingual societies live with and manage their two languages. Grosjean's (1982) model of intergenerational shift shows that the first generation is monolingual in the home language, the second generation is bilingual in the home language and the language of the dominant society, and the by the third generation, the speakers are all monolingual in the language of the dominant society. Before examining this phenomenon, though, it is necessary to understand what is meant by such terms as *bilingualism*, *proficiency* and *competence*, and to explore patterns of how bilinguals use their two languages, focusing on what prompts them to favor one over the other in a particular situation or even how dominance in one language over the other eventually leads to language shift in an individual.

2.1 Measuring bilingual proficiency

Determining bilingualism in individuals depends upon many factors, including but not limited to ability, performance, proficiency, competence, and use of two languages within both the receptive and productive skills and also oral and written modes of language. "A bilingual's competence may encompass a range of skills, some of which may not be equally developed, in a number of languages and varieties" (Romaine, 1996, p. 584). Because of the intricacies involved in language issues, Baker (1993) suggests that classifying "people as either bilinguals or monolinguals is too simplistic" (p. 6). Appel and Muysken (1987) ask the following questions in their attempt to ascertain what individual bilingualism is and how it should be determined:

Many people in Britain have learned some French in school and practice it on their annual holiday, but are they bilingual in the same way as young Puerto Ricans in New York, who use both Spanish and English with equal ease? To what extent must a speaker have command over the two languages in order to be labeled a bilingual? Must he or she have fluent oral and writing skills in both languages? Must a true bilingual be proficient in productive (speaking, writing) as well as receptive tasks (listening, reading)? Which components of the language are the criteria: vocabulary, pronunciation, syntax, pragmatics? (Appel & Muysken, 1987, p. 2)

These questions point to the difficulty involved in establishing a definitive description of what bilingualism is and acknowledge the intricacy and complexity of what it means to live with two languages.

One of the main issues in determining bilingual proficiency involves what to assess and how to measure it. Most proficiency tests for bilinguals assess aspects of language, such as vocabulary or syntax, in the native language and similar aspects in the second language as if they were two separate and independent systems the way they are in monolingual speakers of each of the languages. These measures tend to be task-based, emphasizing decontextualized vocabulary identification using pictures or objects, word associations, read aloud and sentence completions (Hamers & Blanc, 1989). Individuals' reaction times on these types of tasks are sometimes taken as an indicator of the degree of balance or language dominance. To capture the essence of an individual's language competence, larger units of discourse, such as transcribed interviews, written paragraphs or full essays, are necessary. To this end, requesting a writing sample in either or both languages has sometimes yielded better results (e.g., Flores, 1981) for measuring proficiency, at least with respect to literacy. Rating scales and personal biographies are also utilized to pinpoint specific instances in which bilinguals use each or both languages. These provide researchers with information that cannot be captured in a more formal language proficiency measure. This is linked to Grosjean's (1982) idea of knowing the language history of individuals as a means of explaining what they do with their languages.

Language tests developed by psychologists for bilinguals tend to focus on the relationship between the two languages and the extent to which the individual has command over each code (Grosjean, 1982; Hamers & Blanc, 1989; Romaine, 1996). In this vein, numerous tests have been created to measure fluency, flexibility and dominance on the part of bilinguals for each language (Grosjean, 1982) with the main emphasis on finding balance between the two languages. Fluency

refers to “the ability to communicate easily, rapidly, and continuously” (Crystal, 1987, p. 278) in any language. Flexibility deals with the extent to which the bilingual individual can operate in the two languages, and dominance, as will be discussed later, has to do with a bilingual’s preference or strength in one language as opposed to the other. Weinreich (1968) cautions that:

proficiency tests must satisfy certain special requirements. First, care must be taken to test proficiency against a realistic scale which is impartially determined from a description of the “normal” form of the language, not imposed by prescription. Secondly, proficiency should be measured separately on various levels: understanding, expression, and inner speech...Thirdly, relative proficiency should be measured for a given moment in the bilingual’s life, since the ratio can change in the course of time. (p. 75)

Baker (1993) provides a matrix that subdivides the four skill areas of listening, speaking, reading and writing into “skills within skills” (p. 6) that include pronunciation, vocabulary, grammar, meaning and style. This model, however, does not account for both languages in a bilingual individual, as does the model provided by Romaine (1996), which makes it possible to analyze a bilingual’s proficiency in each of the skill areas by looking at phonology, grammar, lexicon, semantics and style for each language. It is not assumed that there will be a comparable proficiency across or even within each language (this will be discussed further in the section on language dominance). As Romaine (1996) points out, “there is no necessary connection between ability in one level and another” (p. 585). Utilizing Romaine’s framework, however, allows for an individual profile of each language for the bilingual.

Another aspect of measuring language abilities, whether in bilinguals or monolinguals, involves the issues of communicative competence and academic proficiency. Communicative competence comprises mastery not only of the four skill areas, but includes also the appropriate usage of language in social situations (Brown, 2001; Romaine, 1996). It is not enough to be able to construct grammatically correct sentences with adequate vocabulary and appropriate pronunciation; it is also important to be able to use language in a socially appropriate manner, given the participants and setting of the language event. Bilinguals may have communicative competence in both languages, and yet it is entirely possible to possess communicative competence for one language and not the other (Romaine, 1996). Academic proficiency or competence in languages is a somewhat controversial notion (Wiley, 1996) in the field of language and education. A distinction is made between conversational, or social, language, and language that is more formal in nature, that is, academic language, or the language required to be successful in school and in the professional world (Baker, 1993; Brown, 2001; Cummins, 1988; Lessow-Hurley, 2000; Peregoy & Boyle, 2001). In educational settings, this difference takes on significance, very good conversational abilities may be obscuring linguistic deficiencies at a higher, more complex, academic level that will make it difficult to succeed in school. Thus, communicative competence and academic proficiency are additional dimensions of the language issue that are incorporated in measuring bilingualism.

2.2 Language dominance, maintenance and shift

Language dominance occurs when a bilingual individual is more proficient or has attained a higher level of fluency overall in one language as opposed to the other (Hamers & Blanc, 1989). Whether the dominant language is a person’s mother tongue is contingent upon a number of factors, including the age at which the second language was acquired and the frequency and degree to which the languages are utilized. As part of language dominance, balanced bilingualism is sometimes understood to connote a high level of proficiency in all the skill areas for both languages; in other words, the individual is thought to be equally dominant in both languages. However, balanced bilingualism actually refers to the stability that exists between the two languages in a bilingual individual, regardless of the level of competence (Baker, 1993; Hamers & Blanc, 1989). Hamers and Blanc provide some clarification of this terminology and its use.

Balanced bilinguality should not be confused with a very high degree of competence in the two languages; it is rather a question of a state of equilibrium reached by the levels of competence attained in the two languages as compared to monolingual competence. Equivalent competence should not be equated with the ability to use both languages for all functions and domains.

Dominance or balance is not equally distributed for all domains and functions; each individual has his own dominance configuration. (p. 8)

Thus, language dominance can be ascertained by observing patterns of language use in different contexts. Numerous studies (Castellanos, 1990; García & Díaz, 1992; García, Evangelista, Martínez, Disla & Paulino, 1988; Lambert & Taylor, 1996; MacGregor-Mendoza, 1999; Tong, 1997) have investigated how bilinguals use their languages in different domains.

2.2.1 Factors related to language maintenance and shift

When shift occurs at an individual level, some authors prefer to use *language attrition*, which can be defined as “the temporary or permanent loss of language ability as reflected in a speaker’s performance or in his or her inability to make grammatical judgments that would be consistent with native speaker (NS) monolinguals at the same age and stage of language development” (Seliger, 1996, p. 606). This is sometimes interchanged with *language loss*, which, according to Kouritzin (1999), “may refer to lack of first language development, delayed first language development, or a progressive loss of a previously-acquired language ability” (p. 11). One aspect of language loss that Pan and Gleason (1986) point out is that developmental factors in children may mask the extent to which they are competent in the native language and perhaps the issue is one of language arrest or stagnation, rather than loss or attrition (p. 196).

There is a growing body of literature (e.g., Hakuta & D’Andrea, 1992; Hernández-Chávez, 1995; Kirschner, 1996; Pan & Gleason, 1986) that explores language loss as more than just the atrophy of skills or proficiency in one language as another is acquired; these researchers suggest that the language the children are acquiring in the first place may not be linguistically intact. That is, the version of the language spoken by parents may not conform to the expected linguistic or grammatical standard of that language as it is spoken in the family’s country of origin. This occurs, according to Hernández-Chávez (1995), because “[i]n the decline of native language proficiency from one generation to the next, the more complex linguistic structures, which are learned late in normal acquisition, *fail to be learned* and are thus lost” (p. 25, italics in original).

This parallels the literacy perceptions of participants in a study conducted by García, Evangelista, Martínez, Disla and Paulino (1988) comparing two socioeconomically distinct Hispanic communities in New York which focused on the use of languages with respect to certain media: watching television, listening to the radio and reading newspapers, magazines and books. With respect to Spanish language use, television was the least utilized medium in either community, which indicated a preference for English channels and shows. More subjects showed Spanish as a preference always or sometimes when listening to the radio. Reading materials for the two communities are mostly in Spanish, especially newspapers from the home country. An interesting finding regarding home language literacy skills emerged from interviewing subjects whose self-reported Spanish literacy skills did not match the actual skills based on schooling. García et al. found that the discrepancy was a matter of point of view with respect to how language use is perceived within a community:

It turns out that what these respondents were saying was that here in the United States their literacy in Spanish is adequate. They are rarely confronted with written Spanish in their daily lives. When they are, it is highly contextualized with familiar messages from back home or accompanied with pictorial messages. Their literacy in Spanish is sufficient to read the few signs and advertisements that they see...*For them, their literacy skills in Spanish are entirely adequate in an English-speaking society that rarely calls for them or makes use of them. For us, literacy in Spanish was measured by the academic yardstick of a monolingual society where Spanish is used for all functions. Whereas we relied on a purely linguistic and academic definition of Spanish literacy, these respondents clearly understood the sociofunctional dimensions of literacy.* (p. 482, italics added)

This has significant implications for language minority populations living within bilingual or multilingual communities in the United States because it surpasses issues of maintenance and shift and speaks to the creation of a newly restructured code. This is one of many examples of how the factor of specialized language use by topic, domain or interlocutor plays a significant role in the

maintenance/shift process. A more detailed discussion of this, however, is beyond the scope of this paper.

Grosjean (1982) traces how language evolves in immigrant families throughout the generations using a flow chart to indicate possibilities of language dominance at each stage. The first generation typically is monolingual in the home language (L1), the second generation is bilingual in both the home language and the dominant language of the society (L2), and by the third generation in many families, the speakers are all monolingual in the dominant language (Appel & Muysken, 1987; Fasold, 1984; Fishman, 1976; Floyd, 1985; Grosjean, 1982; López, 1978; Pedraza, 1985; Portes & Schauflyer, 1996; Schrauf, 1999). This pattern has been found to occur for all language groups that have come to the United States although there are some variations in the time span during which this evolution takes place. The extent to which the second and third generations are bilingual or monolingual in the dominant language indicates the degree of native language shift, and the eventual loss of the home language.

In some communities where there is a continuous stream of immigrants who speak the same language, this pattern does not appear to take hold at all, but examining individual families over time, it becomes apparent that there is a substantial shift toward English (Floyd, 1985; Hakuta & D'Andrea, 1992; Krashen, 2000; López, 1978; Merino, 1983; Pease-Alvarez, 1993; Pedraza, 1985; Portes & Hao, 1998; Rodríguez, Díaz, Duran & Espinosa, 1995; Solé, 1982; Wong Fillmore, 1991). Examples of this can be found in large urban centers and communities that attract great numbers of immigrants who create ethnic enclaves that pave the way for more individuals of the same origin to continue to enter the country. In cities like San Francisco, New York, and Miami, neighborhoods called Chinatown, Little Italy, Little Havana, and Little Haiti designate parts of town where Chinese, Italian, Spanish and Haitian Creole are heard more than English, yet on an individual and family level, the shift to English is unmistakable.

Even with the power of intergenerational shift, there are certain variables that can hasten or delay the process. In his book about a specific language group, *Bilingual Education and the Survival of Spanish in the United States*, Gaarder (1977) describes sociocultural factors that provide a powerful resistance to the shift to English include the size and homogeneity of the bilingual group, the historic priority of bilingual education, and reinforcement by in-migration and immigration, as well having a close-knit, extended family, Spanish as a mother tongue and childhood language, and relative proficiency in both languages (p. 141). Factors that are strong predictors for language shift include a literary-cultural value that would maintain the prestige of the minority group's native language if it were not so de-emphasized in the United States, the function of each language in social advancement (which is clearly English), and the relative usefulness of each language. Because of the relegation of Spanish to an oral medium in the United States, its prestige is diminished within Hispanic communities and code-mixing is prevalent (pp. 142-143). Additional powerful facilitators of language shift are attitudes toward correctness, modes of use for each language in a society that limits the importance of literacy, reading and writing in Spanish by adults, negative attitudes toward language mixing that propel speakers toward English, and the disappearance of the Spanish monolingual group (p. 142). Other factors in Gaarder's (1977) matrix can influence the maintenance/shift process in either direction according to how the bilingual group and the dominant society react to or handle the two languages. For example, how bilingual individuals learn each language can predispose them toward maintenance or shift: "Learning both from same persons in same situations facilitates switching and shift...Learning from different persons in different situations resists shift" (Gaarder, 1977, p. 142). Thus, Gaarder provides a rationale for how a group's native language can coexist with or be replaced by English in the United States.

It is evident that as long as each language in a bilingual community retains a specific function, native language maintenance will continue. If the dominant language displaces the native language, there will be language shift. With respect to relative proficiency in both languages, Gaarder (1977) points out that education in English would favor shift because the few bilingual programs that exist are not strong enough to counteract this effect. If Spanish were to be added as a co-equal medium of instruction in schools, it might contribute to the retention and maintenance of Spanish among Spanish speakers. Thus, Gaarder's (1977) factors indicate that bilingual groups that want to maintain their native language as a viable and vibrant means of communication must make a concerted effort to do

so. He suggests that, overall, these factors demonstrate to Spanish-speaking groups that their native language “*probably cannot be maintained—the shift for most speakers would be inevitable—at its present level of status, function and interference from English*” (p. 143, italics in original). The same would probably hold true for other language groups, which have far fewer numbers than that of Spanish speakers in the United States.

2.2.2 Educational factors affecting maintenance and shift

Among the suggestions for arresting the replacement of one language for another that have been supported by linguists and educators are bilingual education programs (García, 2003). Opponents of bilingual programs fear that children do not learn English fast enough or well enough. This has been the rationale behind recent state legislation in California and Arizona. For those who believe that individuals in the United States should all speak English and only English, bilingual education programs *are* helping students achieve that goal. Numerous studies (Escamilla & Medina, 1993; García, 2000; García-Vázquez, Vázquez, López & Ward, 1997/8; Gold 2000; Greene, 1997, 1998; Lindholm, 1991; Lindholm & Aclan, 1991; López, 1995; Ramírez, 1998) have showcased the English academic achievement of students who participated in bilingual education programs. Furthermore, MacGregor-Mendoza (1999) found that academic achievement in English was positively influenced and not at all hindered by Hispanic students’ perceptions and attitudes about their native language.

Recent studies dealing with language maintenance and Hispanic students (e.g., Dodson, 1995; Hakuta & D’Andrea, 1992; MacGregor-Mendoza, 1999; Reyhner & Tennant, 1995; Rodríguez et al., 1995; Snow & Hakuta, 1992; Winsler, Díaz, Espinosa & Rodríguez, 1999; Wong Fillmore, 1991) have focused on specific aspects of language proficiency and usage, including reception, production and verbal complexity for Spanish-speaking children attending a bilingual preschool (Rodríguez et al., 1995; Winsler et al., 1999) and language use and attitudes toward language in Mexican-American high school students (Hakuta & D’Andrea, 1992; MacGregor-Mendoza, 1999). Previous studies dealing with Hispanic school-age children generally center on language attitudes (Solé, 1982), or address the topic of language maintenance on a short-term basis (Cohen, 1982; Harley, Hart & Lapkin, 1986). Findings and results have sometimes contradicted each other, and there has been little research conducted on a longitudinal basis. There is, however, little disagreement that immigrant children and the children of immigrants are increasingly shifting away from the native language to English.

With the exception of the preschool studies, few researchers examine the impact of program models on Spanish language maintenance. Most research that is program-oriented focuses on academic achievement in English, with one notable exception—an unpublished doctoral dissertation. Flores (1981) examined the long-term effects of a bilingual program on achievement, language maintenance and attitudes. She compared 12th grade students who had attended an elementary school that utilized a dual language model with students who had not and found statistically significant differences in Spanish language proficiency between the groups as measured by four items on an eight-item questionnaire that asked students to rate their ability to perform tasks related to understanding, speaking, reading and writing in Spanish and a written essay in Spanish. Because she also investigated effects on academic achievement and attitudes, language maintenance was not her sole emphasis. The measures she utilized for assessing proficiency were not validated instruments for ascertaining Spanish proficiency or competence; it was basically a self-report based on a minimal number of items and a writing sample. While the writing sample produces a valid source of evidence of writing competence, the self-reporting items do not because they were so few in number. Further, she does not provide a baseline of Spanish proficiency at the beginning or end of the elementary schooling with which to compare the 12th grade results.

The studies reviewed indicate an overall trend of language shift toward English in Spanish-speaking students. Most of the studies are very focused on particular grade levels and take into consideration very few years in a student’s life. Except for Flores’ (1981) dissertation, many of the student groups included were not separated by type of program, i.e., bilingual or non-bilingual, nor were there many follow-up studies beyond one or two year intervals. This indicates that there is little research that links long-term language maintenance in Spanish-speaking students to bilingual instruction or any kind of program at all.

2.2.3 Assessing dominance, maintenance and shift

There is no doubt that “[l]anguage maintenance and shift are the long-term, collective consequences of consistent patterns of language choice” (Fasold, 1984, p. 239). How this affects the achievement of children in school has to be studied on a long-term basis using a variety of measures, research designs and methodologies. Many studies on language choice and maintenance/shift (Bahrick, Hall, Goggin, Bahrick & Berger, 1994; Castellanos, 1990; García & Díaz, 1992; García, Evangelista, Martínez, Disla & Paulino, 1988; Lambert & Taylor, 1996; López, 1978; MacGregor-Mendoza, 1999; Solé, 1982) rely on surveys, questionnaires and interviews to gather information on bilingual individuals’ language choices within different multilingual communities. Most surveys seek to determine patterns of language use and language dominance in different contexts and also language attitudes on the part of the subject. This information can be obtained through a variety of means, including Likert-type items, semantic differential scales, estimated percentages, and open-ended questions (Bahrick et al., 1994; Fasold, 1984; García & Díaz, 1992; MacGregor-Mendoza, 1999). These types of items are included on instruments used in studies (e.g., MacGregor-Mendoza) that seek to correlate bilingual subjects’ language use with language proficiency and/or academic achievement in one or both of the languages. Self-reported data for language ability and use such as that collected through these instruments have been found to be “quite accurate,” even for children, according to Oller (1979, p. 94). More recently, Delgado, Guerrero, Goggin and Ellis (1999) found that Hispanic bilinguals assessed their Spanish language abilities better than they assessed their English abilities.

Language use in bilinguals is a complex phenomenon that is dependent on external factors and contexts that may prompt a bilingual individual to act or respond in a particular way. According to Romaine (1996), “[i]n each domain there may be pressures of various kinds (e.g., economic, administrative, cultural, political, religious, etc.) that influence the bilingual toward use of one language rather than the other” (p. 576) and thus, “[d]ue to competing pressures, it is not possible to predict with absolute certainty which language an individual will use in a particular situation” (pp. 576-577). As group patterns begin to emerge, implications about the roles of languages in a multilingual community can be translated into explanations about how that community operates in general and how its children are educated. Bilingual education programs or services for English language learners that take into consideration that children might be operating within two linguistic worlds have been an option that has recently fallen into political disfavor for families in some communities across the country. As anti-immigrant sentiments increase and funding diminishes, it is incumbent upon educators and researchers to show the positive possibilities of these programs on children for both languages on a long-term basis. This study accomplishes this goal by investigating the relationship between program models designed to serve English learners and their native language abilities and competence in later life. While the majority of studies have examined preschoolers, children and adolescents, very few have included university-level young adults [a notable exception is MacGregor-Mendoza, (1999) who included college students in her study of Mexican descent youth in Chicago]. The present study followed the example of previous studies and used a survey to collect data from a population whose bilingual language patterns have not been fully investigated—the bilingual young adult.

3. Method

3.1 Setting

The setting for this study was a large, urban, public university with several campuses in the South Florida area. The primary campus is located in southwest Miami-Dade County, which houses the fourth largest public school system in the United States and is recognized for its diverse, multicultural and multilingual population. Because of the unique location of the university within this community, it is essential to understand the sociocultural and linguistic dynamic that exists in this part of the country and why it is particularly appropriate for this type of study.

The 1959 coming to power of Fidel Castro in Cuba instigated a massive wave of immigration that more than doubled the existing Hispanic population in Miami at the time and led to an almost 500%

increase in the number of Hispanics from 1960 to 1970 (Ambert & Melendez, 1985; Boswell & Curtis, 1991; Castellanos, 1990; Rieff, 1987). Census figures from 1990 reveal a Hispanic population of 916,000 in Miami-Dade County, which comprises all of Greater Miami and its municipalities, making up 47.5% of the total population (Boswell & Curtis, 1991, p. 140) and including a multiplicity of Latin American nationalities. The 1999 population estimates for Miami-Dade County show an increase to the percentage of Hispanics to 57.4 (U.S. Bureau of the Census, 2000). Political and economic difficulties in the Caribbean and South and Central America have diversified the Hispanic population in Miami. The ethnic enclave created by the first Cuban immigrants made the transition to life in Miami easier for tens of thousands of new Cubans, Nicaraguans, Colombians, Peruvians, Dominicans, Venezuelans and others who joined the Puerto Ricans and Mexicans who were already in Miami-Dade County (Boswell & Curtis, 1991; Castellanos, 1990; Fradd & Boswell, 1996).

As an ethnic group, Hispanics in Miami have become a majority minority. Residential patterns in Miami-Dade County show Hispanics dispersed throughout the region, and it is not uncommon to hear only Spanish spoken in many neighborhoods. It is not surprising that in the forty years of massive Hispanic immigration to Miami, there has also been a significant "out-migration of non-Hispanic whites from Dade County...since the 1960s" (Boswell & Curtis, 1991, p. 144). Businesses owned by Hispanics hire Hispanics and cater to the needs of Hispanics. Economic ties with Latin America have been strengthened to such an extent that "Metropolitan Miami has more American-owned businesses operating in Latin America, and Latin American-owned businesses operating within it than any other US [sic] metropolitan area. Miami also engages in more Latin American trade than any other US [sic] city" (Fradd & Boswell, 1996, p. 286). Given this context, Fradd and Boswell point to the importance of communicative competence in English, Spanish and other languages as "valued resources for promoting business growth" (p. 292).

3.2 Population and sample

A convenience sample of 202 Hispanic university students enrolled in education courses at a large, urban, public university in South Florida participated in the study. Within the context of the setting, the overall student population accurately reflected the population of the community. There was a similar percentage of Hispanics since the majority (90%) of the students were Florida residents and many were graduates of local public and private schools in Miami-Dade and Broward (Fort Lauderdale) Counties (*Fall Profile*, 2000). The racial/ethnic background of the student population in the College of Education (COE) mirrored that of the university and the community, with the exception of the gender split, which was overwhelmingly (76%) female (*Fall Profile*, 2000).

The sample selection consisted of visiting undergraduate education courses over the period of two semesters and having Hispanic students complete a *Language and Education Survey* (Hasson, 2001), which was created for a larger study on language maintenance in Hispanic university students. This guaranteed a 100% rate of return. Selection criteria for inclusion in the study consisted of the following characteristics pertaining to the subjects: 1) must have been a Hispanic bilingual English-Spanish speaker at some point in their life, 2) must have completed at least three years of elementary schooling in the United States, 3) must have had Spanish or both Spanish and English as the native/first language, and 4) must have completed the survey. A total of 202 surveys were included in the study from a 343 that were collected.

The sample was representative of the COE and the university in all areas except gender and age. Approximately 87% of the subjects were female, which is higher than even the college-wide figures, and at 22, the mean age was four to six years younger than the university and the COE. This is due to their status as upper division undergraduate students, more than half of whom were majoring in elementary education. COE and university figures include graduate students in major areas that traditionally do not serve undergraduates. More than 70% of the subjects attended public schools, while close to 30% attended private schools; most of these schools were located in Miami-Dade County. Over 93% of the students had taken at least one year of Spanish classes at the middle or high school level although only 16% planned to continue studying Spanish at the university. The mean number of years studying Spanish at the secondary level (grades 6-12) was 3.0. For subjects who had participated in bilingual schooling or ESOL (34%), the mean number of years of participation in a

bilingual school was 5.3, while the mean number of years in ESOL instruction was 1.5 years. Responses to these items determined the comparison groups.

Because the family and home environments in research regarding languages and patterns of language use are so crucial, demographic data was also gathered on the subjects' parents. The subjects' mothers' mean age was 49 years, and the majority were born in 19 countries outside of the United States, with 73.3% indicating Cuba as their birth place. Five percent were born in Nicaragua, 4.5% came from the United States and Colombia each. Other birth places included a number of Central and South American countries, as well as Germany and Saudi Arabia. More than 98% of the mothers had Spanish as their native language while three had acquired English first. The mean age of arrival to the United States was 19.4 years, and the length of time in the United States was 29.8 years.

The subjects' fathers had a mean age of 52.9 years. They originated from 17 different countries, including the United States. The majority of the subjects' fathers were from Cuba (72.9%), followed by Colombia (7%) and Nicaragua (4%). The mean age of arrival to the United States for the subjects' father was 21.9 years, and the length of time in the United States was 30.6 years. Spanish was the native language of 98.5% of the fathers, while English was the native language for three.

3.3 Instrumentation

3.3.1 Description of the instrument

The *Language and Education Survey* (Hasson, 2001) was created to study the possible long-term relationship of bilingual Hispanic university students' patterns of English-Spanish language use and competence in both languages with the type of schooling—in terms of bilingual education, ESOL or all-English curricula and/or instructional delivery systems—they had received in their elementary years. An important component of the survey requested specific information about the subjects' language background as well a detailed description of their educational background with regard to language and program models they had experienced during their elementary education. This data was used to determine the extent of language maintenance or shift within a sample of Hispanic university students in the bilingual community in South Florida. For this paper, items pertaining to self-reported abilities in writing and analyses of an on-site writing sample in Spanish were used to determine whether or not subjects who had participated in a bilingual and/or ESOL program demonstrated greater written communicative competence than those who had been exposed to an all-English experience.

The demographic variables included gender, age, high school grade point average, SAT score, year at the university, intended major, country of origin, age of arrival (if other than U.S. born), ethnicity, and parents' country of origin, age of arrival to U.S. and native/first language of each parent. These variables were used to establish similarities and commonalities between the comparison groups. The language profile included the subject's native/first language, age at which the second language was learned, and language of initial reading and writing instruction. Subjects were asked to define "bilingualism" based upon a forced multiple choice format that made them consider the different skill areas (comprehension, speaking, reading, writing) and then indicate with a "yes"—"no" response whether or not they considered themselves to be bilingual. This was followed by a set of four items asking subjects to rate themselves on their speaking, reading, writing, and comprehension abilities based on five dimensions of a continuum that ranged from "Best in English" to "Best in Spanish" at the ends, with "Both languages equally" well in the center.

The educational background was critical to this study because of the emphasis on correlating language maintenance, use and attitudes with bilingual program models. This formed a subsection under the demographic component of the survey. Subjects were asked to write in the names and locations (city/state) of their elementary, middle and senior high schools. One of the criteria for participation in the study was whether or not they had attended more than three years of elementary school in the United States. There was a specific item for this in the form of a "yes"—"no" question. The selection of three years as a criterion was important because fewer than three years would mean that subjects had spent more than half of their elementary schooling outside of the country. Since language maintenance was linked to elementary schooling, it was vital that subjects had the majority of their elementary education in the United States, including their participation in a bilingual education

and/or ESOL program or an all-English classroom setting. Respondents who did not meet this criterion were not selected to participate in the study.

In the same section of the survey, subjects were asked to indicate whether they had ever attended a bilingual school (i.e., core subjects such as math, science or social studies taught in Spanish as well as English). They were to circle all the grades for which this was the case. The term “bilingual” was utilized in a non-specific manner to elicit subjects’ interpretations of what this could encompass. A similar format was utilized for the following item that asked if the subject had ever been in a class for English for Speakers of Other Languages (ESOL), and to indicate at which grade levels. It should be understood that in some school districts “bilingual” means “ESOL,” and in most districts “ESOL” is part of a “bilingual” program. These two items would form the basis of the grouping for the subjects for data analysis (students who had participated in special programs or who had received support services in English as opposed to students who had not) to see how this would influence future language patterns. In the first section of the survey, subjects were also asked to indicate the extent of their bilingual language abilities with respect to speaking, reading, writing and comprehension, based upon the following continuum, with scores for each indicated in parentheses: “Best in English” (1 point), “Better in English than in Spanish” (2 points), “Both language equally well” (3 points), “Better in Spanish than in English” (4 points), and “Best in Spanish” (5 points). This point system formed the basis of a *bilingual continuum* that facilitated the use of these items for further comparison and analysis.

The second and third parts of the *Language and Education Survey* (Hasson, 2001) dealt with language use patterns and subjects’ attitudes toward language and education while the last part requested that subjects write a brief (four to five sentences) paragraph in Spanish on the following topic: “*La importancia de ser bilingüe*” (“*The importance of being bilingual*”). This prompt was selected because it was general enough to guarantee a range of responses while being a matter of importance and discussion within this particular community, not to say a hot topic of debate at the national level. The purpose of the writing sample was to be able to gauge the extent of literacy skills in Spanish to determine language competence in a written medium. It should be noted that subjects were asked to write a brief paragraph on a given topic and not an extensive essay.

While there were no time constraints in filling out the surveys, the process was conducted in such a way that subjects did not have access to Spanish dictionaries or grammar reference texts when they were completing the writing sample. They were simply requested to produce a short piece of text, four or five sentences long, which would serve to provide a cursory indication of their writing skills in Spanish, but not necessarily reflect the extent of their formal academic skills in that language, which would require a more extensive piece of writing such as an essay or a short research paper. The paragraph nevertheless served to corroborate self-reported ability in writing from the demographic section of the survey. These paragraphs were scored on a 0 (nothing written) to 5 (written like a native speaker) scale using a holistic rubric by two independent raters and also using an analytic rubric comprising five separate components that included grammar, vocabulary, mechanics, fluency, and form/organization (see next section for a description of each rubric). Statistical analyses were conducted using these scores to determine if there were any significant differences between the two groups.

A self-rating item related to level of ease or difficulty in writing the paragraph in Spanish whose score was correlated to the scores on the writing sample immediately followed the paragraph so that subjects could comment on their perceptions of their abilities in writing both English and Spanish. Subjects were also given an opportunity to write comments in a space provided, and they were asked for contact information if they were willing to participate in a follow-up interview or if they wished to be apprised of the results of the study. The comments section was misinterpreted by some subjects who commented on the writing sample and not on the content of the survey as a whole, which was the original intent and which did not occur with the group that field-tested the survey.

3.3.2 Scoring

The self-reported ability rating section was designed to elicit from respondents an indication of how well they could describe their language abilities for each of the skill areas: comprehension (listening), speaking, reading and writing. This was presented as a question for each skill area (“Which best describes your _____ ability?”) with a possibility of five choices: “Best in English,” “Better in English than in Spanish,” “Both languages equally well,” “Better in Spanish than in English,” “Best in Spanish.” These items were scored on a 1- to 5-point system so that the higher the score, the more likely the individual was to tend toward Spanish language maintenance or Spanish dominance. On the bilingual continuum, the lower the score, the greater was the tendency toward shift to English, or toward English dominance. A score of 3 indicated a balance between the two languages in terms of the subjects’ self-perceived abilities in each of the skill areas, and thus could be interpreted as dominance in neither one language over the other.

The scoring of the writing sample was based on both holistic and analytic evaluations of the linguistic features of what the subjects wrote in their sample paragraph. To evaluate the writing sample, both a holistic score and analytic subscores were obtained for each subject. Holistic rating scales, according to O’Malley and Valdez Pierce (1996), use “a variety of criteria to produce a single score...The rationale for using a holistic scoring system is that the total quality of written text is more than the sum of its components” (p. 142). Hughes (1989) points out that the advantage of holistic scoring is its rapidity. He also notes the importance of ensuring that scoring systems are “appropriate to the level of the candidates and the purpose of the test” (p. 87). In this case, a holistic rating scale (Hasson, 2001) was devised specifically for use with this sample of students to obtain an overall impression of their writing competence in Spanish (see Figure 1).

0	Nothing written
1	Poorly written or not related to topic; little evidence of idea development or organization Writes predominantly phrases or simple sentences Uses limited or repetitious vocabulary Little awareness of spelling, punctuation, capitalization; may use phonetic spelling
2	Related to topic; written at a basic level; some sequencing present, but may lack cohesion Writes in present tense and simple sentences; has difficulty with subject-verb agreement Uses high frequency words; may have difficulty with word order; uses transitional spelling Has errors in punctuation and capitalization; errors often interfere with meaning
3	Related to topic; organizes ideas in logical or sequential order with some supporting detail Uses varied verb tenses; exhibits subject-verb agreement errors; limited use of transitions Vocabulary is appropriate to purpose Uses punctuation, capitalization and conventional spelling; errors interfere with meaning
4	Related to topic; writes with main idea and supporting detail; presents ideas logically Uses appropriate verb tense and a variety of grammatical structures; uses transitions Uses varied vocabulary appropriate for the purpose Has few errors in mechanics which do not detract from meaning
5	Written like a native speaker; has fully developed ideas Uses appropriate verb tenses, a variety of grammatical structures; uses smooth transitions Uses varied, precise vocabulary Has occasional errors in mechanics which do not detract from meaning

Figure 1. Rubric used for the holistic scoring (overall impression) of the writing sample. From *Language maintenance and use in South Florida Hispanic university students: Do educational programs matter?* (p. 237), by Deborah J. Hasson, 2001, Unpublished doctoral dissertation, Florida International University, Miami.

The holistic scoring system was based on different existing rubrics (Barkin-Riegelhaupt, 1985; Hughes, 1989; O'Malley & Valdez Pierce, 1996) and adapted, in an extended format, for use with Spanish writing samples. O'Malley and Valdez Pierce (1996) provided the basis of the description of each score based on their four dimensions of organization, structure, vocabulary and mechanics, which included punctuation, capitalization, spelling and the use of accent marks (p. 142). These dimensions, according to O'Malley and Valdez Pierce (1996), help teachers to “define student performance at each level of the scoring scale” (p. 21) where each level represents “the degree of control the student has over each of the domains of scoring” (p. 21). Within the context of this study, raters can “make fine distinctions among beginning writers” (p. 21) in an integrated fashion that does not rely upon one sole subcomponent for making decisions about a student’s performance and monitor the extent to which learners gain greater mastery of language in a more comprehensive manner.

Scoring for the holistic rubric ranged from 0 to 5. A score of 0 indicated “Nothing written,” and a 5 reflected “Written like a native speaker, has fully developed ideas.” A 0 score is important within the context of this study since it indicates absence of response, which could be linked to lack of competence in writing in Spanish, a probable indicator of not only English dominance, but of a complete shift to English. As indicated in Figure 1, different degrees within the range of scores included “Poorly written or not related to the topic, little evidence of idea development or organization” (1 point); “Related to topic, written at a basic level, some sequencing present but may lack cohesion” (2 points); “Related to topic, organizes ideas in logical or sequential order with some supporting detail” (3 points); and “Related to topic, writes with main idea and supporting detail, presents ideas logically” (4 points). Supporting details reflected examples of appropriateness of vocabulary and grammatical tenses utilized, as well as elements of mechanics indicated above and the extent to which these interfered with overall comprehension of the writing sample. None of these dimensions, however, was intended to predominate in the scoring process; they provided indicators to enhance the overall sense of the value of the written text within the parameters suggested. Two individuals with appropriate credentials in bilingual education, the researcher and another professional in the College of Education, scored the writing samples independently, and the writing sample score was computed as an average of the two holistic scores by these raters.

An analytic scale (Hasson, 2001) was also developed on the basis of several existing rubrics (Barkin-Riegelhaupt, 1985; Blanco, 1994; Hughes, 1989; O'Malley & Valdez Pierce, 1996), but mainly as an adaptation of a scale developed by Anderson (as cited in Hughes, 1989). Analytic scoring methods “require a separate score for each of a number of aspects of a task” (Hughes, 1989, p. 91). O'Malley and Valdez Pierce (1996) point out that the separate components can be weighted according to their relative importance, whether in instruction or as a diagnostic measure. The analytic scoring rubric for this study (see Figure 2) consisted of five areas—grammar, vocabulary, mechanics, fluency and form/organization—each with its own six-point spread from 0 to 5, with 0 indicating that nothing had been written and 5 representing a native-like competence in each of the areas. Again, a score of 0 denotes absence and thus implies a subject’s lack of competence in writing in Spanish, which supports language shift to English.

None of the subscales was weighted for purposes of this study. Each subscore was entered separately to ascertain trends in each of the areas for each of the sample groups. An analytic score based on an average of the scores for the five areas was used to obtain an interclass correlation coefficient ($\alpha = .95$) between the holistic score and the analytic score. This added to the reliability of the scoring system for the writing sample. Also taken into consideration initially were such aspects as paragraph length (number of words and sentences) and complexity of sentences to determine if quantity of writing was an indication of quality of writing. These, however, were not included in the final writing sample score and will be examined with more precision at a future date. The writing sample scores were also correlated with the item asking subjects to rate their reaction to writing in Spanish and the self-perceived writing ability item from the first section to determine if any relationships existed and to confirm subjects’ self-reported levels of Spanish language proficiency in writing.

	Grammar
5	Written like a native speaker
4	Occasional errors of grammar/word order which do not interfere with comprehension
3	Occasional errors of grammar/word order which may interfere with comprehension
2	Frequent errors of grammar/word order which impede comprehension
1	Severe errors of grammar/word order which make comprehension impossible
0	Nothing written
	Vocabulary
5	Vocabulary use indistinguishable from that of a native speaker
4	Occasional use of inappropriate vocabulary does not impede comprehension
3	Occasional use of inappropriate vocabulary may impede comprehension
2	Limited vocabulary and frequent errors hinder expression of ideas
1	Vocabulary so limited that it makes comprehension virtually impossible
0	Nothing written
	Mechanics
5	Punctuation/spelling and use of accents comparable to that of a native speaker
4	Occasional lapses in punctuation/spelling, accents do not interfere with comprehension
3	Occasional lapses in punctuation/spelling may interfere with comprehension
2	Frequent errors in punctuation/spelling sometimes lead to obscurity in meaning
1	Severe errors in punctuation/spelling make comprehension virtually impossible
0	Nothing written
	Fluency
5	Choice of structures and vocabulary consistently appropriate
4	Occasional lack of consistency in choice of structures/vocabulary do not impede comprehension
3	Occasional lack of consistency in choice of structures/vocabulary may impede comprehension
2	Structures or vocabulary items sometimes not only inappropriate, but misused; little sense of ease
1	Communication impossible due to completely inappropriate or misused structures/vocabulary
0	Nothing written
	Form/Organization
5	Highly organized, with a clear progression of ideas
4	Material well organized; links could be clearer, but communication is not impaired
3	Material well organized; links could be clearer; communication may be impaired
2	Some lack of organization; re-reading required for clarification of ideas
1	Lack of organization so severe that communication is seriously impaired
0	Nothing written

Figure 2. Rubric used for the analytic scoring of the writing sample. From *Language maintenance and use in South Florida Hispanic university students: Do educational programs matter?* (p. 239), by Deborah J. Hasson, 2001, Unpublished doctoral dissertation, Florida International University, Miami.

4. Results

Subjects were classified as having received some type of curricular or instructional service for linguistically and culturally diverse students—whether through ESOL classes, a bilingual program or any type of first language support—or having participated in an all-English curriculum in a regular mainstream classroom with no support services at all. A response of “yes” to the former identified the subject as belonging to the experimental group (Bilingual/ESOL, $n = 68$), while a “no” response to these items placed them in the comparison group (All English, $n = 134$). Because of the disparity in the numbers comprising the groups, crosstabs and descriptive statistics were obtained for nominal and interval data, respectively, to assure equivalence between the groups in terms of their demographic characteristics and educational backgrounds. A lack of a statistically significant difference was

interpreted as the groups not being statistically dissimilar and thus being comparable for purposes of the analyses in this study.

The only variables that showed a statistically significant difference between the groups were gender, $\chi^2(1, N = 201) = 4.06, p = .04$, and country of origin, $\chi^2(2, N = 201) = 25.02, p < .001$, when the countries were coded as “United States,” “Cuba” and “Other Spanish speaking country.” In general, the number of females in the groups and in the sample as a whole reflected the overrepresentation of females in education-related majors. Additionally, this sample as a whole had a large percentage of subjects born in the United States. All other demographic variables, including age, high school grade point average, Scholastic Assessment Test (SAT) scores, year at the university, major, native/first language and parents’ ages did not result in statistically significant differences between the Bilingual/ESOL and All English groups. There were also no statistically significant differences with respect to studying Spanish in middle and/or high school or in duration of Spanish study at that level, which is important for this study. Had there been statistically significant differences in the native/first language or the number of years they studied Spanish in their secondary education between the Bilingual/ ESOL and All English groups, it would have affected any conclusions drawn for differences between the groups in any aspect of language maintenance or use and correlation to programs experienced in the subjects’ earlier schooling.

The results of the statistical analysis for self reported language ability in writing indicated a significant difference between the Bilingual/ESOL ($M=1.88, SD=.68, n=68$) and All English ($M=1.64, SD=.68, n=134$) groups, $t(200)=2.38, p < .05$. A total of 198 writing samples were collected, with 94% of the Bilingual/ESOL group and 84% of the All English group subjects responding on this section of the survey. Table 1 displays the distribution of responses for each of the self reported language ability in writing for the two groups, Bilingual/ESOL and All English. A visual examination of Table 1 shows that there was no selection of “Best in Spanish” in either of the groups. Most of the responses in both groups were clustered in the “Better in English than in Spanish” and “Both languages equally well” options and provide support for both Spanish language maintenance in the Bilingual/ESOL group *and* shift to English in both groups.

Table 1
Distribution of Responses for Self-reported Abilities in Writing by Group (N = 202)

Writing	Bilingual/ESOL		All English	
	n	%	n	%
Best in English	19	27.9	62	46.3
Better in English	39	57.4	59	44.0
Both languages	9	13.2	12	9.0
Better in Spanish	1	1.5	1	.7
Total	68	100.0	134	100.0

In the last section of the *Language and Education Survey*, subjects were requested to write a brief paragraph of four to five sentences in Spanish on the following topic: “*La importancia de ser bilingüe*” (“*The importance of being bilingual*”). This section served to confirm the subjects’ self-reported writing ability in the first section of the survey. Subjects were also asked to rate the difficulty level they experienced as a result of writing the paragraph. Table 2 reports the distribution of the paragraph (i.e., writing sample) completion in Spanish for the two groups, that is, how many subjects in each group wrote something in response to the topic prompt. The Chi-square statistic reflects a significant difference between the Bilingual/ESOL group and the All English group in terms of completing this item, meaning that a larger percentage of the students in the Bilingual/ESOL group responded to the item. Table 3 summarizes the distribution of the reactions to writing the paragraph by the two groups, for which there were no statistically significant differences. Still, the percentages reflected in each group for each difficulty level show that more students in the Bilingual/ESOL group

tended to report less difficulty in completing the task and more students in the All English group were unable to complete it at all.

Although there was no statistically significant difference between the two groups with respect to their reactions to writing the paragraph in Spanish, there was a statistically significant correlation, using the Pearson product-moment correlation, between the subjects' reactions to their writing of the paragraph and the raters' holistic scoring of the paragraph ($r=.58, p<.01$). Furthermore, there was a statistically significant positive correlation between subjects' self-reported abilities in writing and the writing scores derived from the paragraphs ($r=.32, p<.01$). This reinforces the idea that self-reported language data is generally accurate and supports the findings reported by Delgado, Guerrero, Goggin and Ellis (1999) and Oller (1979).

Table 2

Distribution of Subjects Completing Writing Sample by Group (N = 201)

Writing sample completed	Bilingual/ESOL		All English	
	n	%	n	%
Yes	64	94.1	113	84.3
No	4	5.9	21	15.7

Note. $\chi^2 (1, N = 201) = .3.99, p < .05$.

Table 3

Distribution of Subjects' Reactions to Their Completion of the Writing Sample by Group (N = 189)

Reaction	Bilingual/ESOL		All English	
	n	%	n	%
No difficulty	19	29.7	26	20.8
A little bit of difficulty	21	32.8	38	30.4
Some difficulty	17	26.6	32	25.6
Great difficulty	5	7.8	17	13.6
Unable to write the paragraph	2	3.1	12	9.6

Written communicative competence was determined by a writing sample score derived from the mean of the holistic evaluations. This was reinforced by an analytic score made up of five subscores which served as confirmation of communicative competence in writing. The paragraphs were scored holistically by two separate English-Spanish bilingual raters who were native speakers of Spanish and had expertise in the areas of bilingual education and second language/literacy acquisition. Working independently, each rater assigned a score ranging from 0 (nothing written) to 5 (written like a native speaker) to each paragraph. When an intraclass correlation coefficient was calculated to determine inter-rater reliability, the alpha coefficient for the raters was .90 for 198 cases, indicating a high degree of consistency between the two raters in the scoring of the writing samples. The mean of the two holistic scores became the writing sample score which was used to compare differences between the Bilingual/ESOL ($M = 3.29, SD = 1.35$) and All English ($M = 2.74, SD = 1.53$) groups. The t-test for independent samples, $t (200) = 2.54, p = .012$, indicated that there were statistically significant differences between the groups at the $p < .05$ level. These findings suggested that the subjects in the Bilingual/ESOL group did exhibit greater written communicative competence than the subjects who did not participate in bilingual or ESOL programs in their elementary schooling.

An analytic scale made up of five subscales—grammar, vocabulary, mechanics, fluency and form/organization—served to confirm the holistic score and provide greater insight into subjects' grammatical competence in Spanish. When analyzed for reliability and internal consistency, the

analytic score, which was derived from the mean of the subscores, and the writing sample score yielded an alpha coefficient of .95, indicating a high level of consistency between the holistic and analytic scores. Additionally, the writing sample score and the five individual analytic subscores generated an alpha coefficient of .98, which also showed a high level of consistency in the scoring process.

Statistical analyses using t-tests for independent samples were conducted for the Bilingual/ESOL and All English groups using the five subscores and the overall analytic score. The results of these statistical tests, displayed in Table 4, showed statistically significant differences between the groups at the $p < .05$ level for all of the subscores, except for form/organization, which was significant at the $p < .01$ level, and vocabulary, which resulted in no statistically significant difference between the groups. The analytic score produced a t value which was almost identical to that of the writing sample score and was statistically significant at the $p < .05$ level, as well. These analytic findings confirmed the holistic scoring results and indicated that the subjects who had participated in a bilingual or ESOL program in elementary school had a better mastery of grammatical forms, mechanics, fluency and form in their Spanish writing. Nevertheless, subjects in both groups exhibited similar patterns concerning vocabulary in Spanish when communicating in writing.

Table 4
Results of t-tests for Analytic Subscores by Group (N = 202)

Subscale	Bilingual/ESOL			All English			t
	M	SD	n	M	SD	n	
Grammar	2.94	1.42	68	2.39	1.42	134	2.60*
Vocabulary	2.76	1.33	68	2.41	1.43	134	1.70
Mechanics	2.68	1.20	68	2.22	1.30	134	2.44*
Fluency	2.99	1.47	68	2.41	1.48	134	2.61*
Form/Organization	2.82	1.51	68	2.25	1.44	134	2.65**
Analytic	2.84	1.31	68	2.33	1.35	134	2.53*

Note. $df = 200$. * $p < .05$. ** $p < .01$.

Based upon the results of the t-tests, the Bilingual/ESOL group had better written communicative competence than the All English group. Overall, when all the scores and subscores obtained for the writing sample were correlated using the Pearson product-moment correlation with the item asking subjects to rate their reaction to writing in Spanish, there was a strong, positive correlation with every score at the $p < .01$ level, as listed in Table 5. This table also shows the statistically significant correlations among all of the scores. The statistically significant correlation of the reaction to all of the

Table 5
Intercorrelation among Reaction, Scores and Subscores for Writing Sample (N = 202)

Scores	W	G	V	M	F	F/O	A	R
Writing Sample	--	.86	.87	.86	.86	.85	.91	.58
Grammar		--	.88	.89	.89	.89	.96	.54
Vocabulary			--	.85	.91	.89	.95	.52
Mechanics				--	.84	.81	.92	.51
Fluency					--	.93	.96	.50
Form/Organization						--	.95	.51
Analytic							--	.55
Reaction								--

Note. All correlations are significant, $p < .01$.

analytic subscores suggested that the subjects' internal assessment of their ability to complete a paragraph in Spanish was confirmed by the rater's external judgment of the written text. Additionally, the statistically significant correlation among the analytic subcomponents showed a high degree of internal consistency in the scoring process.

While a formal content analysis of the writing samples was beyond the scope of this study, a preliminary examination shows that several themes emerged from the subjects' written responses on the importance of being bilingual. These included the context of living in a city predominantly made up of Hispanics and with many bilingual English-Spanish speakers; the importance of knowing more than one language for procuring and maintaining employment; and the significance of one's native tongue in maintaining and transmitting culture and values. A few subjects included comments about the importance of being able to communicate with family members, especially grandparents. In many cases there was evidence of a thought process that seemed to have begun in English and was either translated into Spanish (**hay tiempos que* for *hay veces que*, meaning 'there are times that') or one that made English words Spanish-like (e.g. **desarollamiento* for *desarrollo*, meaning 'development'). There was cross-linguistic influence from English into Spanish in many of the samples, and evidence of the use of "Spanglish" vocabulary and syntax, as well as phonetic orthography (e.g., **hente* for *gente*, meaning 'people'), suggesting the "restructuring" of the native language as described by Grosjean (2001). Even routinized phrases and idiomatic expressions were literally translated from English into Spanish. Additionally, the use of accent marks as part of spelling and punctuation, which is one of the indicators of mastery of Spanish orthography in monolingual speakers, was virtually nonexistent, even in the paragraphs that were assigned the highest scores.

5. Discussion

The findings from this study, while indicating the long-term positive benefits of bilingual/ESOL programs on Hispanic students' written competence, also pointed to a decided shift to English based on the fact that the scores for both groups were in the middle to low end of the 0 to 5 scale. There were statistically significant differences between subjects who had been enrolled in bilingual and/or ESOL programs in their elementary years as opposed to subjects who had experienced an all-English curriculum and instructional delivery mode, yet all the subjects in the study demonstrated evidence of and expressed a tendency toward English dominance. Figure 3 presents the bilingual continuum as a number line. Spanish dominance is at the higher end of the scale with a 5, the highest score. Scores of 3 to 5 would indicate varying degrees of Spanish maintenance, with varying degrees of English proficiency that are not in danger of replacing the Spanish. Any score between 3 and 1 would indicate varying degrees of shift to English dominance with waning degrees of Spanish proficiency as the score approaches the lower end of the continuum. English dominance is represented by a score of 0 because it reflects absence of Spanish maintenance, or Spanish written competence in this study, indicating a complete shift to English. The mid-range of the number line, represented by a score of 3, presents the most challenges with respect to understanding the phenomenon of bilingualism and language maintenance and shift in bilingual individuals. This area represents a balance in the coexistence of the two languages, regardless of what the proficiency is in each one. As pointed out in a previous section of this article, Hamers and Blanc (1989) speak of equilibrium and an individual "dominance configuration" (p. 8) in bilinguals across domains and functions.

The writing sample provided the most insight into the subjects' language maintenance in this study because of all the sections on the *Language and Education Survey* (Hasson, 2001), it was the only one whose analysis did not rely upon self-reported data. It was objectively scored by two raters and then scored in two different ways. Although a detailed error analysis of the writing samples was beyond the scope of this study, in many cases there was evidence of a thought process in Spanish that was based on English phonemic-graphemic relationships and morpho-syntactic rules. As Grosjean (2001) pointed out in a recent lecture, much is known about how a first language interferes with a second language as the latter is being acquired; less is known about how the first language in a multilingual community can be restructured as a result of contact with the dominant language as it is being acquired. The fact that irregularities and errors appeared in the writing samples has massive implications for the direction in which the Spanish language is heading, at least in South Florida. In

the Spanish spoken in this community, aspects of English vocabulary, orthography, morphology and syntax have crept in at an alarming rate. As these features are transferred into written Spanish, restructuring will take place at an even deeper level. The problems have been compounded as these features have been carried into and across second and third generation speakers (Grosjean, 2001; Hernández-Chávez, 1995; Snow & Hakuta, 1992).

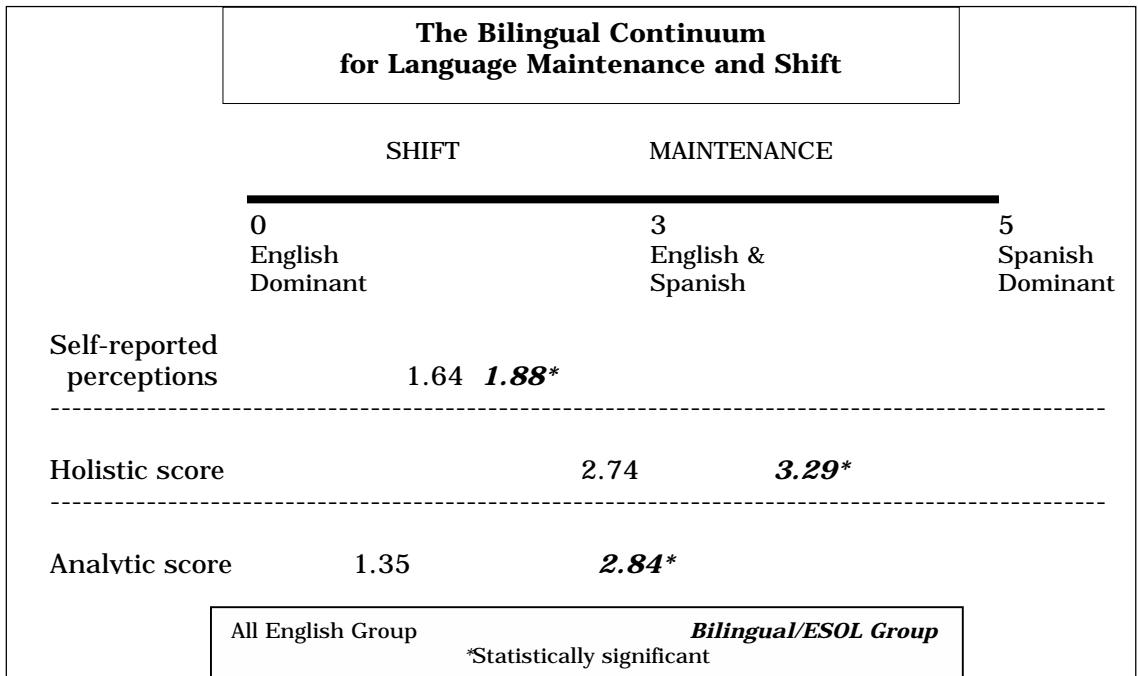


Figure 3. Native language maintenance and shift on a bilingual continuum for subjects in the Bilingual/ESOL and All English groups based on self-reported perceptions of their writing abilities, and their holistic and analytic scores on the writing sample..

The results presented in this study showed that while there was a definite shift toward English in the sample subjects, there were nevertheless significant differences between the Bilingual/ESOL group (subjects who reported having participated in bilingual programs and/or ESOL instruction) and the All English group (subjects who reported having participated in the all English curriculum with no language support in either Spanish or English) in terms of written communicative competence. The scores of the Bilingual/ESOL group were consistently higher than the score of the All English group, and the differences between the two groups were all statistically significant. In Figure 3, approximate plots of the scores give a graphic representation of where these groups are with respect to the bilingual continuum of Spanish maintenance and English shift. For the self-reported item on the subjects' perceptions of their writing abilities and the two scores from the writing sample, it would appear that the Bilingual/ESOL group exhibited greater maintenance tendencies with respect to written competence than the All English group. Despite the significant differences, however, the Bilingual/ESOL group was not far behind the All English group in the move toward the English dominance end of the number line. The edge provided by the special programs, curricula and service in their earlier schooling might not be enough to ensure that they will continue to maintain their Spanish when they graduate from college and face new challenges in the world of work. In that area it is more than likely that they will need to have communicative competence in all aspects of Spanish, especially if they plan to remain in South Florida.

6. Conclusion

The results obtained from this study shed light on a population that is seldom addressed in the sociolinguistic literature: the young adult. Few studies have examined the long-term effects of educational programs on bilingual individuals in their native/first language; indeed, most of the research in this area focused on achievement in English, and within specific and limited periods of time. (A notable exception was the work of Collier, 1995 and Thomas & Collier, 1995, that tracked 24,000 language minority students over 10 years.) These outcomes of this study also offered information on language patterns in English-Spanish bilinguals in a multilingual city and provided insight into their degree of competence in their home language. While there were statistically significant differences between the Bilingual/ESOL and All English groups in terms of their ability and competence, the scores nevertheless revealed that the sample as a whole was rather close to the English dominance end of the bilingual language continuum.

These findings point to a decided and rapid shift to English within immigrant families in South Florida, especially among second generation young adults. Of the 202 subjects who participated in the study, more than 75% indicated that English was their dominant language despite what they may have given as reasons for the “importance of being bilingual” in their writing sample. This means that the Spanish language skills of Hispanic students who remain in school eventually atrophy or remain at a relatively non-academic or non-professional level, what is sometimes referred to as “kitchen Spanish.” Eventually, they will have to reach out to relearn a language that was once theirs. What is the logic of having non-English speaking children lose their native language in favor of English, only to have them face it as a foreign language requirement in high school to be admitted to any university? This is more than a wake-up call for educators. It is not enough to lament the lack of Spanish proficiency or competence in young adult bilingual English-Spanish speakers; it is not enough to have parents and grandparents try to force their children into taking Spanish classes as electives at the secondary level; and it is not enough to have Hispanic teenagers and young adults claim to be bilingual and proficient in Spanish when in reality they barely scrape by if they have to produce more than three complete sentences.

The psychological, cognitive, cultural and economic advantages and benefits to maintaining one’s native language as English is acquired have to be more evident to Hispanic students while they are still in school. They need to learn English, and they need to maintain their Spanish. They might recognize the positive aspects, but may not be acting upon them. Perception is important. Snow and Hakuta (1992) state that “bilingualism is associated in this country with the lower classes and the immigrants, not with the educated elite” (p. 394). It is ironic, though, that children are on waiting lists to be accepted into magnet schools that provide instruction in languages other than English while bilingual education programs in neighborhood schools are being attacked across the country in an effort to withdraw their funding. Until multilingualism is accepted as a positive characteristic in this country and not viewed as a stigma, it will be very difficult to convince our young people otherwise.

Maintaining the native language and assuring communicative competence in it strengthens their potential for economic viability and success as technology continues to shrink the global community and the number of Hispanics in the United States increases. The reality that confronts this nation is that Hispanics have become the largest minority group in the country within the last few years. It would seem that Spanish classes in schools would become a valued and sought-after commodity for all students, if only from the perspective of the business world and economic development.

For the area curriculum and instruction, the findings from the writing sample scores in this study indicated that there was a positive long-term effect on writing communicative competence in Spanish for subjects who had participated in bilingual education or ESOL programs in elementary school. This suggested that these programs played an important role in helping native speakers of Spanish maintain their native language. The fact that the results were based on a writing sample also added credence to the value of these programs in having students maintain a high level of Spanish that is also academic, rather than just social in nature. Programs that use the native language as a medium of instruction will not reverse the language shift, but they can assure that their students will not only be bilingual, but biliterate as well. This shows that these special programs not only helped students maintain their home

language at a more than social level, but also they realized the stated federal goal of having English language learners acquire English. Attaining these dual goals, as found in this study, provides additional support for continuing to fund these types of programs at all levels of education.

Sociolinguistic research has played a pivotal role in describing and explaining what occurs with languages on both an individual and societal level. As the numbers of entering and United States-born non-English speakers continue to rise, the impact on educational systems around the country will be greater than ever imagined. Investigating long-term effects of educational programs on young and not so young adults can help school districts refocus their efforts in terms of curriculum and instructional delivery systems for their students. It behooves our educational system to give students options in their educational experiences and equip them with the tools necessary to take part in this economic surge. Helping Hispanic students maintain and strengthen their home language as they acquire and become proficient in English will enable them to augment their potential to benefit from the opportunities that will certainly be available to them in more than one language when they graduate.

Acknowledgements: I would like to thank Delia C. García, Florida International University, Oneyda M. Paneque, Barry University, and María L. Fernández, N. Eleni Pappamihel and Susan Wood, Florida State University, for their insights and contributions to earlier drafts of this article.

References

- Ambert, Alba N., & Meléndez, Sarah, A. (1985). *Bilingual education: A sourcebook*. New York: Garland Publishing.
- Appel, René, & Muysken, Pieter. (1987). *Language contact and bilingualism*. London: Edward Arnold.
- Bahrick, Harry P., Hall, Lynda K., Goggin, Judith P., Bahrick, Lorraine E., & Berger, Stephanie A. (1994). Fifty years of language maintenance and language domination in bilingual Hispanic immigrants. *Journal of Experimental Psychology: General*, 123 (3), 264-283.
- Baker, Colin. (1993). *Foundations of bilingual education and bilingualism*. Clevedon, UK: Multilingual Matters.
- Barkin-Riegelhaupt, Florence. (1985). Testing bilingual language proficiency: An applied approach. In Lucía Elías-Oliveras, Elizabeth A. Leone, René Cisneros & John R. Gutiérrez (Eds.), *Spanish language use in public life in the United States* (pp. 165-180). Berlin: Mouton.
- Blanco, George M. (1994). El hispanohablante y la gramática. (The native Spanish speaker and grammar.) *Bilingual Research Journal*, 18 (3 & 4), 23-46.
- Boswell, Thomas D., & Curtis, James R. (1991). The hispanization of metropolitan Miami. In T.D. Boswell (Ed.), *South Florida: The winds of change* (pp.140-161). Miami: Annual Conference of the Association of American Geographers.
- Brown, H. Douglas. (2001). *Teaching by principles: An interactive approach to language pedagogy. Second edition*. White Plains, NY: Addison Wesley Longman.
- Castellanos, Isabel. (1990). The use of English and Spanish among Cubans in Miami. *Cuban Studies*, 20, 49-63.
- Cisneros, René, & Leone, Beti. (1995). Editors' introduction. The ESL component of bilingual education in practice: Critical descriptions of bilingual classrooms and programs. *Bilingual Research Journal*, 19 (3 & 4), 353-367.
- Cohen, Andrew D. (1982). Bilingual schooling and Spanish language maintenance: An experimental analysis. In J.A. Fishman & G.D. Keller (Eds.), *Bilingual education for Hispanic students in the United States* (pp. 333-343). New York: Teachers College Press.
- Collier, Virginia P. (1995). *Promoting academic success for ESL students: Understanding second language acquisition for school*. Elizabeth, NJ: New Jersey Teachers of English to Speakers of Other Languages-Bilingual Educators.
- Crystal, David. (1987). *The Cambridge encyclopedia of language*. Cambridge: Cambridge University Press.
- Cummins, Jim. (1988). Language proficiency, bilingualism and academic achievement. In P.A. Richard-Amato, *Making it happen. Interaction in the second language classroom: From theory to practice* (pp. 382-395). New York: Longman.
- de Gale, Anabelle. (2001, March 10). Get in line: Freebies big at Calle Ocho. *The Miami Herald*, pp. 1A, 2A.
- Delgado, Pedro, Guerrero, Gabriela, Goggin, Judith P., & Ellis, Barbara B. (1999). Self-assessment of linguistic skills by bilingual Hispanics. *Hispanic Journal of Behavioral Sciences*, 21 (1), 31-46.
- Dodson, C.J. (1995). The effects of second-language education on first/second-language development. In B.M. Jones & P.A.S. Ghuman (Eds.), *Bilingualism, education and identity. Essays in honor of Jac L. Williams* (pp. 108-129). Cardiff, Wales: University of Wales Press.

- Escamilla, Kathy, & Medina, Marcello. (1993). English and Spanish acquisition by limited-language-proficient Mexican Americans in a three-year maintenance bilingual program. *Hispanic Journal of Behavioral Sciences*, 15 (1), 108-120.
- Fasold, Ralph. (1984). *The sociolinguistics of society*. New York: Basil Blackwell.
- Fishman, Joshua A. (1976). *Bilingual education: An international sociological perspective*. Rowley, MA: Newbury House Publishers.
- Flores, Dorothy J. (1981). *An investigation of the long-term effects of bilingual education upon achievement, language maintenance and attitudes*. Unpublished doctoral dissertation, University of Florida, Gainesville.
- Florida International University Fall 2000 Profile. (2000). Miami: Florida International University.
- Floyd, Mary B. (1985). Spanish in the Southwest: Language maintenance or shift? In L. Elias-Olivares, E.A. Leone, R. Cisneros, & J. Gutierrez (Eds.), *Spanish language use and public life in the USA* (pp. 13-25). Berlin: Mouton Publishers.
- Fradd, Sandra H., & Boswell, Thomas, D. (1996). Spanish as an economic resource in metropolitan Miami. *Bilingual Research Journal*, 20 (2), 283-337.
- Gaarder, A. Bruce. (1977). *Bilingual schooling and the survival of Spanish in the United States*. Rowley, MA: Newbury House Publishers.
- García, Homer D.C.. (1985). Family and offspring language maintenance and their effects on Chicano college students' confidence and grades. In E.E. García & R.V. Padilla (Eds.), *Advances in bilingual education research* (pp. 226-243). Tucson, AZ: University of Arizona Press.
- García, Ofelia, Evangelista, Isabel, Martínez, Mabel, Disla, Carmen, & Paulino, Bonifacio. (1988). Spanish language use and attitudes: A study of two New York City communities. *Language in Society*, 17, 475-511.
- García, Ricardo L., & Díaz, Carlos F. (1992). The status and use of Spanish and English among Hispanic youth in Dade County (Miami) Florida: A sociolinguistic study, 1989-1991. *Language and Education*, 6 (1), 13-32.
- García, MaryEllen. (2003). Recent research on language maintenance. *Annual Review of Applied Linguistics*, 23, 22-43.
- García-Vázquez, Enedina, Vázquez, Luis A., López, Isabel C., & Ward, Wendy. (1997/8). Language proficiency and academic success: Relationships between proficiency in two languages and achievement among Mexican American students. *Bilingual Research Journal*, 21 (4), 1-12. Available on-line at: <http://brj.asu.edu/articles/ar4.html>
- Gold, Norm. (2000). *Bilingual schools make exceptional gains on the state's Academic Performance Index (API)*. Oakland, CA: Californians Together: A Roundtable for Quality Education.
- Greene, Jay P. (1997). A meta-analysis of the Rossell and Baker review of bilingual education research. *Bilingual Research Journal*, 21 (2 & 3), 1-19. Available on-line at: <http://brj.asu.edu/archives/23v21/articles/art1.html>
- Greene, Jay P. (1998). *A meta-analysis of the effectiveness of bilingual education*. Claremont, CA: The Tomas Rivera Policy Institute.
- Grosjean, François. (1982). *Life with two languages: An introduction to bilingualism*. Cambridge, MA: Harvard University Press.
- Grosjean, François. (2001, March). *Late and early bilinguals: Similarities and differences*. Lecture presented as part of the Barbara Gordon Memorial Linguistics Series, Florida International University, Miami, Florida.
- Hakuta, Kenji, & D'Andrea, Daniel. (1992). Some properties of bilingual maintenance and loss in Mexican background high-school students. *Applied Linguistics*, 13 (1), 72-99.
- Hamers, Josiane F., & Blanc, Michel H.A. (1989). *Bilinguality and bilingualism*. Cambridge: Cambridge University Press.
- Harley, Birgit, Hart, Douglas, & Lapkin, Sharon. (1986). The effects of early bilingual schooling on first language skills. *Applied Psycholinguistics*, 7, 295-322.
- Hasson, Deborah J. (2001). *Language maintenance and use in South Florida Hispanic university students: Do educational programs matter?* Unpublished doctoral dissertation, Florida International University, Miami.
- Hernández-Chávez, Eduardo. (1995). Native language loss and its implications for revitalization of Spanish in Chicano communities. In A.S. Lopez (Ed.), *Latino language and education: Communication and the dream deferred* (pp. 24-40). New York: Garland Publishing.
- Hughes, Arthur. (1989). *Testing for language teachers*. Cambridge, Great Britain: Cambridge University Press.
- Kirschner, Carl. (1996). Language attrition and the Spanish-English bilingual: A case of syntactic reduction. *The Bilingual Review/La Revista Bilingüe*, 21 (2), 123-130
- Kouritzin, Sandra G. (1999). *Face[t]s of first language loss*. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- Krashen, Stephen D.. (2000). Bilingual education, the acquisition of English, and the retention and loss of Spanish. In A. Roca (Ed.), *Research on Spanish in the U.S.* Somerville, MA: Cascadilla Press.

- Lambert, Wallace E., & Taylor, Donald M. (1996). Language in the lives of ethnic minorities: Cuban American families in Miami. *Applied Linguistics*, 17 (4), 477-500.
- Lessow-Hurley, Judith. (2000). *The foundations of dual language instruction. Third edition.* New York: Longman.
- Lindholm, Kathryn J. (1991). Theoretical assumptions and empirical evidence for academic achievement in two languages. *Hispanic Journal of Behavioral Sciences*, 13 (1), 3-17.
- Lindholm, Kathryn J., & Aclan, Zierlein. (1991). Bilingual proficiency as a bridge to academic achievement: Results from bilingual/immersion programs. *Journal of Education*, 173 (2), 99-113.
- López, David E. (1978). Chicano language loyalty in an urban setting. *Sociology and Social Research*, 62 (2), 267-278.
- MacGregor-Mendoza, Patricia. (1999). *Spanish and academic achievement among Midwest Mexican youth: The myth of the barrier.* New York: Garland Publishing.
- Merino, Barbara J. (1983). Language loss in bilingual Chicano children. *Journal of Applied Developmental Psychology*, 4, 277-294.
- Oller, John W. (1979). *Language tests at school: A pragmatic approach.* London: Longman.
- O'Malley, J. Michael, & Valdez Pierce, Lorraine. (1996). *Authentic assessment for English language learners: Practical approaches for teachers.* New York: Addison-Wesley.
- Pan, Barbara A., & Gleason, Jean B. (1986). The study of language loss: Models and hypotheses for an emerging discipline. *Applied Psycholinguistics*, 7, 193-206.
- Pease-Alvarez, Lucinda. (1993). *Moving in and out of bilingualism: Investigating native language maintenance and shift in Mexican-descent children. Research Report: 6.* Santa Cruz, CA: National Center for Research on Cultural Diversity and Second Language Learning, University of California, Santa Cruz. Available online at: <http://www.ncbe.gwu.edu/miscpubs/ncrecdsl/rr6/index.html>
- Pedraza, Pedro. (1985). Language maintenance among New York Puerto Ricans. In L. Elias-Olivares, E.A. Leone, R. Cisneros, & J. Gutierrez (Eds.), *Spanish language use and public life in the USA* (pp. 59-71). Berlin: Mouton Publishers.
- Peregoy, Suzanne F., & Boyle, Owen F. (2001). *Reading, writing, and learning in ESL: A resource book for K-12 teachers. Third edition.* New York: Longman.
- Portes, Alejandro, & Hao, Lingxin. (1998). *E pluribus unum: Bilingualism and loss of language in the second generation.* *Sociology of Education*, 71, 269-294.
- Portes, Alejandro, & Schauffler, Richard. (1996). Language and the second generation: Bilingualism yesterday and today. In A. Portes (Ed.), *The new second generation* (pp. 8-29). New York: Russell Sage Foundation. [An earlier version (1994) of this article can be found in the *International Migration Review*, 28 (4), 640-662.]
- Ramirez, J. David. (1998). *Language academy and other bilingual programs. San Francisco Unified School District. Performance of redesignated fluent-English-proficient students (R. FEPs). (Excerpt from SFUSD Language Academy: 1998 Annual Evaluation).* Long Beach, CA: Center for Language Minority Education and Research, California State University, Long Beach.
- Reyhner, Jon, & Tennant, Edward. (1995). Maintaining and renewing native languages. *Bilingual Research Journal*, 19 (2), 279-304.
- Rieff, David. (1987, May 18). A reporter at large: The second Havana. *The New Yorker*, 65-83.
- Rodríguez, James L., Díaz, Rafael M., Duran, David, & Espinosa, Linda. (1995). The impact of bilingual preschool education on the language development of Spanish-speaking children. *Early Childhood Research Quarterly*, 10, 475-490.
- Romaine, Suzanne. (1996). Bilingualism. In W.C. Ritchie, & T.K. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 571-604). San Diego, CA: Academic Press.
- Schrauf, Robert W. (1999). Mother-tongue maintenance among North American ethnic groups. *Cross-Cultural Research*, 33 (2), 175-192.
- Seliger, Herbert W. (1996). Primary language attrition in the context of bilingualism. In W.C. Ritchie & T.K. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 605-626). San Diego, CA: Academic Press.
- Siguán, Miguel, & Mackey, William F. (1987). *Education and bilingualism.* Kogan Page, in association with UNESCO.
- Snow, Catherine E., & Hakuta, Kenji. (1992). The costs of monolingualism. In J. Crawford (Ed.), *Language loyalties: A source book on the Official English controversy* (pp. 384-394). Chicago: University of Chicago Press.
- Solé, Carlos A. (1982). Language loyalty and language attitudes among Cuban Americans. In J.A. Fishman & G.D. Keller (Eds.), *Bilingual education for Hispanic students in the United States* (pp. 254-268). New York: Teachers College Press.

- Thomas, Wayne P., & Collier, Virginia P. (1995, August 1). Language-minority student achievement and program effectiveness studies support native language development. *NABE News*, 5, 12.
- Tong, Virginia M. (1997). The relationship between first and second languages and culture: Finding a cross-cultural identity. *NYSABE Journal*, 12, 43-61.
- U.S. Bureau of the Census. (2000). *County population estimates by age, sex, race and Hispanic origin*. Washington, DC: U.S. Government Printing Office. Available on-line at: <http://www.census.gov/population/www/estimates/countypop.html> or <http://www.quickfacts.census.gov/cgi-bin/county?cnty=12025>
- Viglucci, Andrés. (2001, March 8). Hispanics now equal blacks in population: Parity reached sooner than predicted; larger role in national issues foreseen. *The Miami Herald*, pp. 1A, 10A.
- Weinreich, Uriel. (1968). *Languages in contact: Findings and problems*. The Hague: Mouton Publishers.
- Whitefield, Mimi. (2001, March 8). Hispanics in U.S. targeted: Mexican firm seeks market growth. *The Miami Herald*, 1C, 3C.
- Wiley, Terrence G. (1996). *Literacy and language diversity in the United States*. Washington, DC & McHenry, IL: Center for Applied Linguistics & Delta Systems.
- Winsler, Adam, Díaz, Rafael M., Espinosa, Linda., & Rodríguez, James L. (1999). When learning a second language does not mean losing the first: Bilingual language development in low-income, Spanish-speaking children attending preschool programs. *Child Development*, 70 (2), 349-362.
- Wong Fillmore, Lily. (1991). When learning a second language means losing the first. *Early Childhood Research Quarterly*, 6, 323-346.

ISB4: Proceedings of the 4th International Symposium on Bilingualism

edited by James Cohen, Kara T. McAlister,
Kellie Rolstad, and Jeff MacSwan

Cascadilla Press Somerville, MA 2005

Copyright information

ISB4: Proceedings of the 4th International Symposium on Bilingualism
© 2005 Cascadilla Press, Somerville, MA. All rights reserved

ISBN 978-1-57473-210-8 CD-ROM
ISBN 978-1-57473-107-1 library binding (5-volume set)

A copyright notice for each paper is located at the bottom of the first page of the paper.
Reprints for course packs can be authorized by Cascadilla Press.

Ordering information

To order a copy of the proceedings, contact:

Cascadilla Press
P.O. Box 440355
Somerville, MA 02144, USA

phone: 1-617-776-2370
fax: 1-617-776-2271
sales@cascadilla.com
www.cascadilla.com

Web access and citation information

This paper is available from www.cascadilla.com/isb4.html and is identical
to the version published by Cascadilla Press on CD-ROM and in library binding.