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## Language Trends of Spanish/English Dual Language Learners

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Language Trends in Spanish/English Dual-Language Learners

Cailin Amundsen

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### Abstract

This honors thesis project explores past and current research on the language and literacy development and assessment of Spanish-English bilinguals. The researched differences between Spanish and English language acquisition, cross-language development patterns and phenomena found in bilingual children, and holistic approaches to accurate and authentic assessment of language acquisition of bilinguals have lent support to future research questions and methodologies. The following literature review provides clear connections from current bilingual language acquisition and literacy development studies to the future research questions and ideas they rouse. Said questions and ideas have been organized into a research proposal addressing the language trends of Spanish/English dual-language learners: students who are learning simultaneously in Spanish and English throughout elementary school.

### Proposal for Research on Language Trends of Spanish/English Dual-Language Learners

According to Paradis and Genesee, “transfer” is a phenomenon that occurs during the phonological acquisition of two languages simultaneously, and “consonants and/or vowels that are specific to one language transfer to productions of the other language” (1996). A common example of this phenomenon between Spanish and English is young children producing unaspirated stops (a type of consonant speech sound that is finished without an audible release of air), as they are in Spanish words such as the ‘c’ in “capa”, instead of aspirated stops in English words like the ‘t’ in “top.” (Fabiano & Goldstein, 2010). Another example would be the epenthesis, or the addition of schwa to the beginning of a word that begins with a consonant. Spanish-English bilingual children and adults produce epenthesis on English words that contain an initial /s/. This is because there are no words that are produced with an initial /s/ in the Spanish lexicon. All Spanish words that have an initial ‘s’ sound are preceded by an ‘e’ such as “estrella” and “especial” (Goldstein, Fabiano & Washington, 2005). As literacy begins to emerge within the bilingual student, another term has been established for transfer as it applies to the utilization of syntactic and/or semantic rules from one language into another. This term is called interliteracy (Gort, 2006). Gort found instances of Spanish/English bilinguals (a mixture of Spanish-dominant and English-dominant first graders) applying English word order rules into Spanish writing, literal translations of Spanish phrases into English writing, Spanish sound-symbol relationships to English spelling, and vice versa (2006). While these findings prove interliteracy and cross-linguistic transfer exists in the realm of biliteracy, her research was but a small case study. Current research has prompted me to ask, “What are the progressive trends of the acquisition of biliteracy? And what specific examples of transfer are prevalent during each stage of literacy acquisition for bilinguals?”

After completing two elementary education internships at El Sol Elementary School, a dual-language learning environment for Spanish-English bilinguals, as well as observing the specific daily workload of the school's speech-language pathologists many times, I believe El Sol is the optimal setting for this type of qualitative research.

I will collect oral and written samples in both English and Spanish from a heterogeneous group of fifth graders at El Sol Elementary. The reasoning as to why I would choose fifth graders is each fifth grader at El Sol has had dual-language instruction from the beginning of kindergarten up until now. That means they have learned to read, write, and they have obtained new vocabulary simultaneously in English and Spanish. Previous research has depicted the types of interliteracy that occur during the emergent literacy stage. I plan to research the types of interliteracy that occurs once students are expanding their literacy skills in the upper elementary and early middle school grades. I would like the sample to include children at all skill-levels represented by the fifth grade population. Ideally, participants from predominantly Spanish-speaking homes, as well as from predominantly English-speaking homes would participate.

My proposed hypothesis is that if student work samples are collected throughout the year from 30 nine to eleven year-old English/Spanish dual-language learners in both English and Spanish, then there will be clear examples of transfer and interliteracy between Spanish and English orthography, sentence structure and verb-tenses.

All samples will be collected and analyzed by bilingual speech-language pathologists, or bilingual speech-language pathology students with backgrounds in bilingual education.

This study has the potential to become my master's thesis and could be used as foundational material for larger inquiries into language trends of dual-language learners. This study could aid in the acquisition of more information about the ways in which the two

seemingly separate language systems interact with one another in Spanish/English dual-language learners.

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### Language Trends of Spanish/English Dual-Language Learners

It has been said that by the year 2035, 50% of the United States' kindergarteners will speak languages other than English at home (Winsler, 1999). The nation has just begun making strides in how our public schools accommodate bilingual children. One way in which we accommodate bilingual students is through English as a Second Language (ESL) programs, where, ideally, the use of the students' native language for both academic learning and English acquisition in all subjects takes place (Dominguez de Ramírez & Shapiro, 2007). While these programs are efficient for sequential bilinguals, individuals who have a grasp on one language before learning the next (Castilla, Restrepo & Perez Leroux, 2008), dual-language programs have been introduced throughout the states. Dual-Language programs are programs where two languages, usually Spanish and English in the United States, are used for instruction equally throughout the school year. These programs are not tailored to just sequential bilinguals, but are available for students who are simultaneous bilinguals: those who learn two languages at once. This type of bilingual education program has attracted the attention of educational and speech-language pathology researchers to new developmental phenomena specific to bilingual learners.

According to Hodgeson-Drysdale (2013), biliteracy is "the ongoing, dynamic development of concepts and expertise for thinking, listening, speaking, reading, and writing in two languages" (p. 138). Throughout the process of becoming a biliterate individual, instances of cross-linguistic transfer, or more specifically, interliteracy have been recorded. Interliteracy is the application of grammatical, orthographical, or semantic rules of one language into another language (Gort, 2006). This phenomenon is an example of another referred to as code-switching, which Deckrow (2005) refers to as "the alternative use of two languages on the word, phrase, clause or sentence level...[code-switching] occurs when the speaker's first language will not



meet all their communicative needs (p. 27). Phenomena such as these and the controversy surrounding them inspired this research question:

What types of research have been conducted in order to identify language and literacy acquisition trends of Spanish/English dual-language learners? The recent available research on bilinguals and their education has made it clear that while research, and therefore knowledge on bilingual language learners have grown immensely in the last twenty years, there are areas such as biliteracy and authentic assessments for bilinguals that still need to be thoroughly researched and developed due to the growing population of dual-language learners in our country.

Most bilingual research has been comprised of sequential bilinguals and the role their first language plays in supporting the acquisition of their second language. Castilla et al. (2009) describe education in a bilingual's first language as sometimes being, "the only door to a successful literacy experience" (p. 577). This statement is a result of their research on sequential bilingual pre-schoolers and the level of language interdependence they exhibited between Spanish and English. Each participant in the research came from a Spanish-speaking home, and attended an all-English preschool. The study gauged the level of mastery each child had in Spanish at the beginning of the year, and how it related to the development and success of their second language, English. The results showed that, "L2 (second language) grammatical development is associated with L1 (first language) semantic and grammatical abilities given that several Spanish semantic and grammatical measures strongly predicted performance on the English morphosyntactic tests" (p. 576). According to Kohnert (2009), the opportunity to speak and learn in both a sequential bilingual's first *and* second language determines the educational success of the individual. This is where the importance of research on and implementation of English as a Second Language programs comes into play.

Not only has the majority of research on bilingual language-learners focused on students who are sequential bilinguals, but it has focused on English Language-Learners who are involved in English as a Second Language programs. Accurate assessments with which to test the language abilities of bilinguals are lacking since most norm-referenced tests are insensitive to the test-takers personal growth over time. Through two related studies on English Language Learners, Dominguez de Ramirez and Shapiro (2006) have identified Curriculum-Based Measurement (CBM) as a “sensitive to assessing the course of language and literacy in Spanish-speaking ELLs” (p. 365), because it assesses both current level *and* growth of a student’s performance in reading. After assessing ELLs with CBM at the start and end of an ESL program, Dominguez de Ramirez and Shapiro found that while the reading comprehension levels of ELLs improved in both Spanish and English, it was at a slower rate than their monolingual peers (2006). A year later while assessing ELLs with CBM, Dominguez de Ramirez and Shapiro found that the oral reading fluency in both English and Spanish of a bilingual student within an ESL program is an accurate indicator of general reading outcomes in both languages (2007). The results of these studies corroborate the findings of Castilla et al. that suggest instruction and skill-level in a bilingual’s first language is directly related to the successful development and mastery of their second language. CBM only takes oral reading fluency into account, but what about the assessment of phonemic awareness skills and comprehension? Is CBM the most authentic way in which one can accurately assess a bilingual’s development and skill-level? Is there a need for more research in order to create norm-referenced assessments specifically created for bilinguals?

While research completed on ELL and ESL populations show the needs for authentic bilingual assessments that test students in both languages, there has been a sizeable amount of research completed on the phonological and lexical acquisition of bilinguals. Enough research has been conducted to provide speech pathologists with the groundwork on which to develop

bilingual language acquisition assessments. Goldstein, Fabiano and Washington found differences between the order in which phonemes are mastered between English-speakers, Spanish-speakers, and Spanish/English bilingual speakers. One trend they found within the bilingual population was the omission of final word sounds from English words that are not used as final consonant sounds in Spanish such as /m/, /t/ and /p/. The research also showed a common substitution of trills (only in a Spanish repertoire) for the English prevocalic /ɹ/ (only in an English repertoire) as in “rock.” Goldstein et al. also found bilinguals exhibit epenthesis, the addition of a vowel sound before a consonant, before words that start with /s/ as there are no words that start with /s/ but rather an “es” in Spanish such as “estrella” and “espectaculo.” The same researchers also found that bilinguals developed phonemes in an untraditional sequence compared to their monolingual peers in both English and Spanish (2005).

In 2010, Fabiano and Goldstein studied the early-, middle-, and late-developing sounds within the phonological development of Spanish/English bilingual toddlers. These researchers were interested in studying the patterns in which bilinguals acquired phonemes because all languages of the world follow a simple-to-complex pattern of acquisition, although no two of these patterns between languages are identical. They wanted to see if commonalities existed within the patterns of acquisition of English and Spanish combined. They found that there are phonological development complications that occurred in English, such as cluster reduction and final consonant deletion, that the same bilingual speakers did not exhibit in Spanish (2010a). While these findings are useful and accurate, the research also concluded that there is no fixed pattern of phonological acquisition specifically exhibited by Spanish/English bilinguals. In a later study, the same researchers found that the phonemes that are shared between the two languages may increase the rate of acquisition for Spanish/English bilinguals (2010b). This

finding aids in corroborating the idea that, “although bilingual children demonstrate separation between their two phonological systems, those systems interact to aid in rate of acquisition” (176).

Finkbeiner, Gollan and Caramazza disproved a common theory regarding the lexical access and recall called the Selection by Competition theory. The theory suggests that when a reader assigns a word to an object or action, many words “compete” with one another on a cognitive level until the word that is most fitting for that action or object is selected and spoken. This theory also suggests that for bilinguals, this process of competition takes significantly longer, because the individual has to choose between familial words from two languages instead of one. The current study proved that bilingual individuals have the ability to select target words in both languages at the same rate, and sometimes even quicker than their monolingual peers (2006). The aforementioned researchers have uncovered invaluable information on the acquisition of phonology and semantics within Spanish/English bilinguals, but are there trends being researched regarding the acquisition of skills such as reading and writing in bilinguals?

Only within the last 15 years has biliteracy begun to be researched. In 2005, Deckrow examined the oral and writing instances of code-switching within a bilingual second-grade classroom. Code-switching was originally, and sometimes still believed to be a practice of those who are semilingual. The sentiment is if an individual switches back and forth from one language to another to fully express themselves, they are not proficient in either language. Through her dissertation, Deckrow attempted to provide evidence that code-switching is not a weakness, but a normal characteristic of bilingual speaking. She cited her own research and past research that has found code-switching to be “effective as a teaching, learning, and communicative strategy in both oral and written form, among bilingual students” (p. 15). This researcher found that in order to be able to code-switch effectively, which all of the students in

her study did, an individual must be astutely aware of the grammar and structure in both languages. The studied students provided evidence of this dual-language awareness based on the uniform manner in which they all code-switched while writing and speaking. The students adhered to all grammatical rules in both English and Spanish while code-switching between them, and code-switched less frequently while writing as they had more time to organize their thoughts and choose appropriate language. The only code-switching behaviors that were significant among the participants in their writing was applying Spanish orthography to English writing. The major conclusions reached through this research were increasing an advocacy for code-switching behaviors and moving away from looking at it negatively and disapprovingly, because it serves “as a social tool... [and] a cognitive linguistic resource to make sense of the learning of [bilinguals’] dual languages and cultures” (p. 135).

Similar to the findings of Deckrow, Gort found that Spanish-dominant children used English and Spanish in the process of creating Spanish texts. One element that differentiates Gort’s research from Deckrow’s is the former included specifically English-dominant bilinguals into consideration and found that while writing, they used only English to create a groundwork for Spanish writing. Gort also found that code-switching was contingent on “relative strength of L1 and L2 (i.e. language dominance), their bilingual development, the linguistic context, and the corresponding language proficiencies of their interlocutor(s)” (p. 336) For younger bilinguals learning to read, Culatta and Setzer found acquisition trends in Spanish/English bilingual kindergarteners pertaining to early literacy. They found that stronger phonological awareness skill in L1 correlate to better reading performance in L2, and that different phonemic awareness skills hold more importance to the development of literacy in English than in Spanish. Rhyming is a crucial phonemic awareness skill in English, while alliteration is a more vital skill and more present in the Spanish language (2006). These findings may aid in the development of specific

instruction techniques for educators and speech pathologists working with the bilingual community.

With this research on interliteracy and biliteracy in mind, Hodgson-Drysdale (2013) pointed out that “Emerging bilingual students receiving paired literacy instruction benefitted from such instruction, and showed developing writing skill in both languages. Students were able to scaffold their writing development in the other language as the languages act symbiotically with one another” (p.149). The findings of López and Tashakkori’s study on the effects of two-way bilingual education on the development of kindergarten and first grade students corroborate the conclusions of Hodgson-Drysdale. These researchers found that students who were instructed in both English and Spanish met the grade-level standards constructed for monolingual children in two languages regardless of their socioeconomic statuses (2003). With new areas of study within bilingualism such as biliteracy beginning to be researched, it is crucial to look to past research with a critical lens to evaluate their findings in order to find valuable information for future research.

Current research on bilingual language acquisition is becoming a more prevalent topic. As research questions develop within the subject area, new research issues develop emerge, like the need for normative data on bilinguals in order to create authentic assessments for their development. Along with all the research reviewed here, Kester and Peña conclude that bilinguals have different patterns of acquisition than monolinguals, and that they use an amalgamation of strategies used by their monolingual peers in order to develop bilingualism (2002). In order to accurately assess bilinguals, Kester and Peña say language tests for bilinguals need to reflect the differences between the two languages that are being learned, and how the process of learning both languages at the same time may affect the progression of the processes in each language (2002). Jia, Kohnert and Aquino-Garcia also point out that in order to grasp a

bilingual individual's language skills, the student *must* be assessed equally in both languages.

School systems and speech pathologists in the United States have just started to assess in both languages consistently within the last fifteen to twenty years (2006).

The use of inauthentic tools such as translated testing materials and the comparison of bilingual language development to monolingual norms are still occurring in research today, which leads to inaccurate results and incomplete conclusions on a bilingual's language skill-levels. Peña, Bedore, and Rappazzo clearly list reasons as to why researchers and professionals should not use translated tests (tests developed in English directly translated to Spanish) while assessing anyone, especially bilinguals. Firstly, there are cross-language development differences between Spanish and English. One example of this is the early development of prepositions in English. A child learning Spanish will test below average due to spatial concepts being less specifically marked in Spanish than they are in English. Lexical frequency, or familiarity, differ between languages. For example, children from Mexico will more quickly identify mangos and papayas than apples and bananas, which are more likely to be on a test that was translated from English to Spanish. Lastly, Spanish and English differ on rules for word order in a sentence. While English is highly structured around nouns, Spanish is more flexible with word placement between nouns and verbs in a sentence. This may cause translated from English assessments to translate strangely into Spanish and therefore affect the results of the tested. Winsler, Diaz, Espinosa, and Rodriguez (1999) may have had inaccurate results as a consequence of testing bilingual individuals using assessments translated from English such as the TVIP.

Holding bilinguals to monolingual developmental norms for language has been a ubiquitous practice due to the non-existence of authentic assessment specifically made for bilingual language learners. Kester and Peña list specific reasons why bilingual language development should not be held to monolingual normative values. Bilinguals may speak each

language under different circumstances (i.e. at home vs. at school), therefore the functionalities of both languages may differ. Also, bilingual children produce more unique words in a category generation task, as opposed to labeling the same item in both languages. This example supports the idea that language function plays a role in the development in each language.

Lastly, within the realm of issues in bilingual research, there has been a noticeable general focus on sequential bilinguals and ELLs when conducting research on bilingual language development (Castilla et al, 2009; Dominguez de Ramírez & Shapiro 2006). What about simultaneous bilinguals, or English-dominant bilinguals, or students who are learning to read and write in both languages simultaneously? With these prominent issues in mind, future research questions have been postulated.

Some of these research questions are: What specific types, if any, of cross-linguistic transfer or interliteracy occur within Spanish/English bilinguals in upper elementary grades? Is there a common or trending progression of the cross-linguistic transfer of literacy skills in Spanish/English bilinguals? Do Spanish-dominant children utilize code-switching differently than English-dominant Spanish/English bilinguals?

This review of current literature has led to the generation of research questions that could greatly better our understanding of bilingual development, begin the development of authentic assessment for bilingual learners, and create instruction strategies specific to the needs of bilinguals in the classroom and in speech-language therapy. With more knowledge about bilingual language development, and more tools to facilitate the development of two languages at once, this nation will be better prepared for the exponential growth of bilingual citizens.



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Winsler, A., Diaz, R.M., Espinosa, L., & Rodriguez, J.L. (1999). When learning a second language does not mean losing the first: Bilingual language development in low-income, Spanish-speaking children attending bilingual preschool. *Child Development*, 70(2), 349-362.

## Annotated Bibliography

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This study was conducted in order to gather data on the language interdependence between Spanish/English sequential bilingual pre-school children. The research was conducted on 49 preschool-age native Spanish speakers. First, the children were tested on their grammatical and semantic skills in Spanish using MLU (mean length of utterance), a story-retelling task, and a picture-naming task. After nine months of participation in an English-only preschool program, the children were tested again on their grammatical and semantic skills, but in English. The data showed that there is developmental interdependence between L1 (Spanish) and L2 (English). Basically, the grammatical and semantic development of L2 (English) is highly associated with the grammatical and semantic abilities of L1 (Spanish).

The authors briefly addressed the notion that while individual differences underlie the interdependence of an L1 and L2, the continuation of education in L1 may be the only door to successful literacy experiences and further growth in L2. While this notion is closely related to the field work experiences I have had in a bilingual elementary school where the majority of students are native Spanish-speakers, the research in this article made me think of how, while most of my students are sequential bilinguals, most of them learned to read and write in Spanish and English simultaneously. How does this affect the continuing development of L1 (Spanish) and L2 (English)? How does ability level in L1 (whether it be Spanish or English), affect the acquisition of both oral language of L2 and the beginning of literacy education in both L1 and L2?

Culatta, B., Reese, M., & Setzer, L.A. (2006). Early literacy instruction in a dual-language (Spanish-English) kindergarten. *Communication Disorders Quarterly*, 27(2), 67-82.

This study showed the results of early literacy instruction centered specifically on phonological awareness skills such as rhyming, alliteration, blending and segmenting in two dual-language kindergarten classrooms. The students received hands-on instruction for rhyming and alliteration in both English and Spanish, even though there were some children who were native Spanish speakers, few were bilingual, and some were native English speakers with no exposure to Spanish. All students were pre-tested on these skills in their most comfortable language, and then post-tested (in their most comfortable language) after having instruction in one skill (alliteration) and again after learning both skills (alliteration and rhyming). The goal of the study was to see a progressive gain in all students' phonological awareness skills.

While this study offered examples of extremely effective methods in teaching phonological awareness in two languages, for me, the most valuable pieces of this study were the specific information gathered about phonological skills and how they specifically relate to English and Spanish. For example, I gathered that rhyming is a more important skill to learn and acquire in English than in Spanish based on the configuration of morphemes in Spanish. Because of this, the native Spanish-speakers in the study had a more difficult time mastering the skill of rhyme generation in both Spanish and English. Information I deemed more relevant to further research in this article was about basic differences between the syntactic structures of English and Spanish. For instance, Spanish has fewer consonant clusters, more transparent orthography, fewer vowel sounds, and fewer possible final consonants than the English language. These facts may support many of the trending examples I observe in the writing of Spanish/English bilingual students.

Deckrow, E.R. (2005). Code-switching in a second-grade classroom: A teacher research study

(pp. 1-65, 123-143). (Doctoral Dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3207253)

The type of research conducted for this dissertation is quite similar to the research I would like to conduct. The author collected qualitative data on code-switching patterns in ten second-grade bilingual students. She collected written samples from the students and conducted interviews with the students in order to identify instances of code-switching. The author defines code switching as the alternative use of two languages on a word, phrase, or clause level. Code-switching occurs when the speaker's first language will not meet all of the communicative needs of the speaker.

The author goes into great depths to describe the history of perceptions on code-switching within the education community. Many educators and education research still believe code-switching to be a negative effect of bilingualism. They perceive the phenomenon of code-switching as an indication of semilingualism, or the non-functional or incomplete comprehension of two languages. The author has found research, including her own, that shows code-switching is an effective tool in teaching, learning, and communication in both oral and written form. Also, the author and her sources demonstrated that in order to code-switch easily, speakers generally need a sophisticated knowledge of grammar of *both* languages since it always takes place at points in which combining two languages does not violate syntactic rules of either language.

The research showed that there were minimal instances of oral code-switching throughout the participants, and even fewer written instances. One thing the author observed was the participants using Spanish orthography within English compositions, which I have observed as well in dual-language classrooms.

This dissertation is an invaluable source on which I can base future research. Everything from the background information to the methodology could be used as examples and support for similar studies.

Domínguez de Ramírez, R., & Shapiro, E.S. (2006). Curriculum-based measurement and the evaluation of reading skills of Spanish-speaking English language learners in bilingual education classrooms. *School Psychology Review*, 35(3), 356-369.

The authors of this study inquired about the quantitative differences of reading skills between Spanish-speaking English language learners in bilingual programs and monolingual English speakers in a general education program. The research found that using Curriculum-Based Measurement is a surprisingly sensitive assessment of the growth and development of reading skills in not only monolingual children, but for bilingual ELLs as well.

The results of this study showed that ELLs participating in a bilingual program read slower in English *and* Spanish than English-speaking students read in English in a general education environment. Some plausible reasons the literature gives to explain for native Spanish-speakers reading slower in Spanish than native English speakers reading in English are that Spanish narratives tend to be longer in mean number of syllables, and naturally take longer to read. The other reason for the data gathered is that the studied ELL group was enrolled in a bilingual program that was considered to be a “transitional bilingual program”. This means the students’ native language was utilized in order to teach English, but was then gradually phased out of their education once their English developed toward mastery. It is likely that by the upper elementary grades, these students could have been reading more slowly due to a loss of the Spanish language while their skills in English were improving.

The researchers' theories were supported by their data through the notion that while all educators need to hold high expectations for *every* student, individual expectations should be based on the *rate* of learning as well as the attainment of absolute curricular standards.

Domínguez de Ramírez, R., & Shapiro, E.S. (2007). Cross-language relationship between Spanish and English oral reading fluency among Spanish-speaking English language learners in bilingual education classrooms. *Psychology in the Schools*, 44(8), 795-806. doi:10.1002/pits.20266.

This study illustrated how Curriculum-Based Measurement, a test where a student reads a grade-level passage for one minute while the examiner keeps track of words read correctly and incorrectly, can be an accurate tool in predicting how Spanish oral reading fluency affects the oral reading fluency of the reader in English. There were high correlations between a student's oral reading proficiency in his or her first language (Spanish) and the student's oral reading proficiency in his or her second language (English). CBM also proved to be a useful predictor when administered in the beginning of the school year in Spanish, of the student's oral reading fluency in English at the end of the same academic year.

This research was completed after the same two authors found CBM to be a generally sensitive assessment for both English and Spanish speakers. While the qualitative data of this study (and many of the others) will no doubt support my specific branch of research, I plan to interpret more quantitative data. For example, instead of completing a CBM on a student by simply adding the words he or she read correctly and then subtracting the words he or she read incorrectly in order to get a raw score to compare to others, I would be more interested in the types of miscues or inaccuracies the student is making. What does the miscue say about the way the child comprehends the text? Will I be able to draw connections between their inaccuracies and specific trends in their ways of thinking and development within bilingual education?



Fabiano-Smith, L., & Goldstein, B. A. (2010a). Early-, middle-, and late developing sounds in monolingual and bilingual children: An exploratory investigation. *American Journal of Speech-Language Pathology*, 19(1), 66-77.

The authors created this study to address these three questions: 1) Which sounds constitute EML categories for Spanish? 2) Are there differences between Spanish-English bilingual children and monolingual Spanish and monolingual English children when it comes to EML in Spanish and English? 3) Are there differences *within* languages on the development of EML sounds for Spanish-English bilingual children? First the authors created an EML (early-, middle-, and late-developing sounds) framework in Spanish. Then, they conducted 32 single-word tests to eight Spanish monolinguals, eight English monolinguals, and eight Spanish-English bilinguals between the ages of 3 and 4. They narrowly transcribed the responses of each individual and mapped out the phonemic results onto the EMLs.

While this study does not directly relate to the age group I would like to research in the future, it uncovered some gaps that I will consider while creating methodologies for research on Spanish-English bilinguals. First, there are no norms (such as EML) for Spanish-English bilinguals. Secondly, the research showed that while the PCC (percentage of consonants correct) means of English monolinguals and Spanish-English bilinguals did not differ dramatically, the PCC mean of the Spanish-English bilinguals was noticeably less accurate than the PCC mean of their Spanish monolingual peers.

Fabiano-Smith, L., & Goldstein, B. A. (2010b). Phonological acquisition in bilingual Spanish-English speaking children. *Journal of Speech, Language, and Hearing Research*, 53(1), 160-178.

This study set out to gather data on four types of phenomena that have been documented to

occur during bilingual language development. The first phenomenon is called “transfer”. This is when consonant and/or vowel sounds from one language transfers into the production of the other. “Acceleration” is considered to be occurring when bilinguals acquire both languages at a faster rate than their monolingual peers. There is an observed variation of acceleration that is characterized by both languages acquired by a bilingual speaker developing at the same rate as one language is acquired by a monolingual peer. Thirdly, “deceleration” is characterized by bilingual children acquiring one or both of their languages at a slower rate than the norm of their monolingual peers. Lastly, there have been examples of bilingual language-learners who produce shared phonemes between their two languages with higher accuracy than their monolingual counterparts. The study showed instances of all listed phenomena except for the traditional definition of acceleration. While there were some children who were developing both of their languages within the normal rate of acquisition for one language, not one was developing both languages at a faster-than-normal rate.

My research will most likely not focus on the phonemic acquisition of Spanish-English bilinguals, but I do see how these four phenomena could have the potential to carry over to the acquisition of written language and reading skills, especially in the case of the transfer phenomenon. I believe I have already seen instances of transfer between Spanish and English orthography and oral and written representations of verb tenses and pronouns.

Finkbeiner, M., Gollan, T.H., & Caramazza, A. (2006). Lexical access in bilingual speakers:

What’s the (hard) problem?. *Bilingualism: Language and Cognition*, 9(2), 153-166. doi: 10.1017/S1366728906002501.

This article addresses the way in which bilingual individuals seem to avoid the “hard problem” pertaining to lexical access. The “hard problem” is the assumption that lexical nodes,

or words, need to compete with other nodes that are closely associated with the target. For example, if someone is shown a picture of a chair, they may think of the word “chair” and also “table,” “silla,” and “mesa.” The idea is for bilinguals, choosing “chair” instead of “silla” should be a time-consuming decision for their brains. But it isn’t. Proficient bilinguals have no problems choosing the correct label for targets. This does not corroborate the present theory of lexical access. The article describes three more theories that attempt to explain how bilinguals avoid this “issue.” While they seem plausible, there is no empirical evidence to support their claims.

Lexical access for bilingual individuals interests me when it comes to how it applies to children learning vocabulary in Spanish and English simultaneously. For success, by upper elementary grades, students need to learn vocabulary that is unfamiliar to them in both languages. How does this affect how they access these new words in both languages?

Gort, M. (2006). Strategic code-switching, interliteracy, and other phenomena of emergent bilingual writing: Lessons from first grade dual language classrooms. *Journal of Early Childhood Literacy* 6(323), 323-354.

This research supports the idea that understanding the emergent literacy processes of bilingual children is critical to the development and design of instructional and assessment practices within the growing population of bilingual students in this nation. The author points out that even recently bilingual students who are English-dominant are often ignored in bilingual research. Throughout this review of literature, I have noticed the above-mentioned trend. That being said, the author created a qualitative case study of both English- and Spanish-dominant bilingual students in first grade. One of the purposes of the study was to find trends and patterns of developing bilingual writing processes and skills. This is exactly what I will examine in the

future within an upper elementary classroom.

This study showed through a triangulation of qualitative data that bilingual students draw from both languages while developing emergent literacy skills (print concepts, syntactical structures, and lexicon). The most frequently observed phenomenon was that of interliteracy. The author defines interliteracy as the application of rules from one language into another. As far as I am concerned, interliteracy is a more specific way to address trends of cross-linguistic transfer within reading and writing. Some examples of interliteracy found throughout this study were students using English word order within Spanish writing, using literal translations of Spanish phrases in English writing, relating Spanish sound-symbol relationships to English spelling, and vice versa.

During the discussion, the author communicated the importance of the continuation of research on simultaneous biliterates, as current research does not include data on literacy skills that transfer regularly between the two languages or specify how transfer occurs. I intend to use this type of current literature to create and support further research in this specific area.

Goldstein, B.A., Fabiano, L., & Washington, P.S. (2005). Phonological skills in predominantly English-speaking, predominantly Spanish-speaking, and Spanish-English bilingual children. *Language, Speech, & Hearing Services in Schools*, 36(3), 201-218.

The research question asked by the authors of this article was, “How is the language output (as reported by the parents) affected by the phonological skills of Spanish-English bilinguals children?” In order to collect data, the authors tested 8 predominantly Spanish-speaking children age 5-5.5, 8 predominantly English-speaking children also age 5-5.5, and 8 Spanish-English bilingual children age 5-5.5. All subjects took part in naming 31 targets in

English and 29 targets in Spanish. The researchers then compared data to see if there were any examples of cross-linguistic effects within the bilingual subjects, any trending examples of substitutions between all subjects, and if there was a correlation between language output (measured in percentage of day speaking Spanish or English) and phonological skill. The data showed that there is not a strong correlation between language output (as reported by parents) and phonological skill level. The researchers only recorded 16 substitutions in Spanish for the bilingual children and 9 substitutions in English for the bilingual children. Both the PS (predominantly Spanish) and PE (predominantly English) test subjects produced more substitutions than the bilingual children.

This article had intriguing information concerning trends in phonological patterns that bilingual children may make, like substituting trills (a Spanish-only phoneme) for prevocalic ‘r’ (an English-only phoneme) or bilingual children omitting final consonants in English that are not available as final consonants in Spanish. (The only available consonants for final consonant position in Spanish are /s/, /n/, /r/, /l/, and /d/.) These types of connections between phonological patterns and bilingualism are an integral part of my inquiries for research. I want to be able to identify not only the substitutions or phonological patterns Spanish-English bilinguals create, but I also want to uncover why they do it. As well, this relates to the orthography, reading, and writing skills of bilingual students.

Hodgson-Drysdale, T. (2013). [Review of the book *Early biliteracy development: Exploring young learners’ use of their linguistic resources*, by E.B. Bauer & M. Gort]. *Journal of Early Childhood Literacy*, 13, 138. doi: 10.1177/1468798412467928.

This short book review highlights the findings and key points of research including emergent bilinguals becoming emergent biliterates. The authors, Bauer and Gort, define

emergent bilinguals as children who learn two or more languages at an early age. They draw on another source that defines emergent biliteracy as, “an ongoing, dynamic development of concepts and expertise for thinking, speaking, reading, and writing in two languages” (p. 142). Unsurprisingly, the author reminds the reader of the lack of research on bilingual learners compared to that of their monolingual peers. The authors added that it is crucial to teach bilinguals from a bilingual perspective, which means more research on emergent bilingualism and biliteracy is pertinent to the modern education of bilinguals. Among the many studies discussed in the text, there were correlations between all of them. One: students have the tendency to discuss and process information, represent ideas, meaning-making, interact socially, and explore concepts of emergent literacy like letter names and sound-symbol relations in their first language. Once they establish concepts and ideas, growth and understanding of the same concepts transfer to their second language. Two: emerging bilingual students who received paired literacy instruction in both languages benefitted greatly from this type of instruction and showed developing writing skills in both languages. Basically, bilingual students are capable of scaffolding their writing development in their new languages, because the languages act symbiotically with one another.

This source is a good one in which to build research based on the case study-type of methodologies used in its research. The type of participant used in these studies is similar to those who will be involved in my future research. I would like to explore the specific types and examples of autonomous scaffolding and transfer that this study demonstrates within the reading and writing skills of emergent biliterates.

Jia, G., Kohnert, K., & Aquino-Garcia, J.C.F. (2006). Action naming in Spanish and English by sequential bilingual children and adolescents. *Journal of Speech, Language, and Hearing*

*Research, 49, 588-602.*

According to the authors, this study was the first of its kind to analyze the accuracy and timing of Spanish-English bilinguals naming verbs. The study was inspired by another conducted by one of the authors with nouns. Both studies called for 80 children divided into four groups by age bracket (5-7, 8-10, 11-13, and 14-16). All children responded to cards showing simple illustrations of actions. As each card was being shown, the examiner would tell the participant whether to respond in English or Spanish. The authors predicted that the three older age brackets of sequential bilingual students would answer more quickly and accurately in English than in Spanish. By definition of this article, a sequential bilingual student is someone who learns a single minority language from birth (L1) and is slowly introduced to a majority language (L2) during school-age years. The authors presented data that shows L2 becomes the primary language as the student becomes older. The authors also predicted that all groups would take more time to respond accurately to this specific study testing action-naming than previous studies testing object-naming. The article explained that nouns are more dominant during early language development for both Spanish and English. While naming nouns works a semantic aspect of language, naming verbs requires knowledge of both semantics and syntax.

This study relied on the connectionist competition theory, the idea that lexical processes are completed by the lexical node that most closely fits the target word. For the current study, this theory was used as reasoning as to why the older groups of participants may have taken longer amounts of time to respond, seeing as they have a larger lexicon in two languages to choose from. The connection competition theory, however, was also discussed in a lexical access study on Spanish-English bilinguals by Finkbeiner, Gollan and Caramazza (2006). The authors of said study dismissed the relevance of this theory as it relates to bilingual language acquisition, because it seems that bilinguals rarely if ever have noticeable or conscious pauses when choosing

between their two separate lexicons. In fact, their research showed that proficient bilinguals reacted more quickly when asked to complete an object-naming task.

My future research will question the connectionist competition theory, as I have read about it three or four times throughout this bibliography, but the arguments and data showing me that this theory has been disproved when addressing bilingual language experiences are both empirical and convincing (Finkbeiner et al. 2006).

Kester, E. S., & Peña, E. D. (2002). Language ability assessment of Spanish-English

bilinguals: Future directions. *Practical Assessment, Research & Evaluation*, 8(4),

Retrieved November 11<sup>th</sup>, 2013 from <http://PAREonline.net/getvn.asp?v=8&n=4>.

This article was an analysis of previous studies that used tests created for monolinguals to assess language ability of bilinguals, or used tests translated from English to Spanish in order to assess language ability of bilinguals. These are the two main reasons why bilingual students are misdiagnosed with language impairments, as there are no tests that assess bilingual students based on their unique patterns of language acquisition. The article explores explanations why these two types of assessment for bilinguals are inaccurate. The authors concluded that the two main reasons why bilingual students are misdiagnosed with language impairments are that testing a bilingual child against norms of monolingual language acquisition may paint an inaccurate picture of that child's skills and abilities, because bilingual children may speak their two languages in separate circumstances that may lead them to have differing amounts of skill in both languages. Also, bilingual children have been observed to list more unique words in a category generation task rather than labeling the same item in both languages. This could be seen as problematic on an assessment created for monolinguals, because at first glance it looks like the child produced a low score based on the target score, but when one focuses on the number of



unique words generated in *both* languages, one can see the child is drawing upon sufficient knowledge of language. Translating tests from English to Spanish provides a significant opportunity for bilingual students to receive inaccurately low scores. Tests in English are organized from more simple tasks *in English* to more difficult tasks. While a task may be simple in English, like pronouns, Spanish speakers may struggle, because pronouns are challenging in the Spanish language. Also, it has observed that children of different languages and cultures respond differently to generation tasks. For example, when English-speaking children are asked to list animals, the three most prominent responses are elephant, lion, and dog. When Spanish-speaking children are put to the same task, their three most prominent responses are caballo (horse), elefante (elephant), and tigre (tiger).

While creating more sound translations from English tests to Spanish tests is a better short-term solution to the problem, there is a need for the development of language assessments specifically for bilinguals. According to the article, these bilingual assessments should include: 1) a wide variety of semantic tasks in both languages 2) tasks involving grammatical structures of both languages, not just the structure the two languages have in common 3) use of conceptual scoring in order to avoid an underestimation of language skills 4) consideration of the frequency of occurrence of the included tasks and vocabulary in each language.

More than anything, this article made me curious about the procedures that have been developed since the publication of the article. What types of assessments are used in schools and clinics? Specifically, how have the language abilities of my bilingual students and/or clients been tested?

Kohnert, K. (2008, February 12). Second language acquisition: Success factors in sequential bilingualism. *The ASHA Leader*, 10-13.

This article was a brief discussion on the three factors that affect the success of sequential bilingualism. The first factor is *means*. This refers to an individual's cognitive, social, emotional, sensory, and neurobiological abilities to produce two languages. The second factor is *opportunity*. The social factors such as rich language environments, and diverse occasions in which one can develop and use a language in meaningful communicative interactions is referred to as the factor of opportunity. Lastly, the third factor is *motive*. Motive addresses the interactions of environmental needs for a specific language, as well as personal preferences related to the given social situation.

The bilingual elementary school students that I have observed and taught at El Sol Elementary School may lack the factor of motive. While the native Spanish-speakers seem to have no trouble communicating in English, the native English-speakers in the classroom sometimes seem reluctant to use Spanish when they are not obliged to. This may be due to a lack of added incentives to speak in Spanish as opposed to English, since their Spanish-speaking peers have no qualms with speaking in English. What are some ways to encourage native English-speaking bilinguals to become comfortable with and enthusiastic about speaking a language they no doubt know, but are not consistently expected to speak?

López, M.G., & Tashakkori, A. (2003). Effects of two-way bilingual education on the literacy development of students in kindergarten and first grade. (Doctoral dissertation). (ED 476 177) Retrieved from ERIC database.

This research was completed in order to show the successes of two-way bilingual programs and their efficacy in language arts instruction in both Spanish and English. In this study, native Spanish-speaking kindergarteners and first graders were broken up into two groups per grade. One group received instruction in both Spanish and English every day throughout the year. The control group received instruction only in English except for two hours of Spanish

language arts per week. The results of this study showed that while the post-test scores of the students who were taught in both languages did not exceed those of the monolingual instruction group, there was also no significant difference between the two. While the author set out to demonstrate the superiority of bilingual programs, her research showed that in this case, the two groups succeeded equally. Another piece of valuable information found within the study was that the scores of students of low SES did not significantly differ from those without that label.

Much of the research I have read so far reports information very similar to the latter. This will play an important role in any research being conducted in the Kalamazoo Public School District. This specific study may not have shown that bilingual programs are more efficient than monolingual programs for English Language-Learners, but this does not mean that bilingual programs have been created specifically to serve this demographic. Dual-language programs create opportunities for children of native English-speaking backgrounds to learn another language during childhood, when it is easiest to do.

Mancilla-Martinez, J., Pan, B.A., & Vagh, S.B. (2011). Assessing the productive vocabulary of Spanish-English bilingual toddlers from low-income families. *Applied Psycholinguistics*, 32, 333-357. doi: 10.1017/S0142716410000433.

This research set out to test whether or not the combination of the MacArthur-Bates Communicative Development Inventory (CDI) and its Spanish counterpart, the MacArthur-Bates Inventarios del Desarrollo de Habilidades Comunicativas (IDHC) could accurately assess the language (predominantly vocabulary) of Spanish-English bilingual toddlers of low socio-economic status. The research pointed out the IDHC is not a direct translation of its English counterpart, but it is sensitive to the language development and culture of Spanish speakers. The study was completed with 79 Spanish-English bilingual toddlers and their parents. The parents and a research assistant were to administer the two tests to the toddlers. The results show that

these two tests, when used in tandem, are accurate in assessing the developing bilingual language of toddlers up to 36 months.

The authors also found information that coincides with multiple other sources within this bibliography that says assessing a bilingual child in just one language can be harmfully inaccurate. Only one-third of the vocabulary of the participants of this study was shared in both languages. The majority of low-income bilingual children's vocabularies are made up of words known either uniquely in English or Spanish. If a researcher was to assess a bilingual child in only one of two of his or her languages, you would be exposed to approximately two-thirds of the child's vocabulary. Just because a child does not have a label for an object in one language does not mean that he or she does not have the conceptual knowledge of the item.

Peña, E., Bedore, L.M., Rappazzo, C. (2003). Comparison of Spanish, English, and bilingual children's performance across semantic tasks. *Language, Speech & Hearing Services in Schools*, 34(1), 5-16.

Once again, this study highlighted the need for authentic assessment in both Spanish and English for bilingual children. The study discussed the issues associated with using assessments that are merely translated from English to Spanish, as it has been proven that items such as lexical frequency and cross-language development do differ between languages. For example, a student whose native country is Mexico may be more accustomed to seeing mangos and papaya in his kitchen than apples and bananas. Which pair of fruit is more likely to be on an assessment directly translated from English? Also, children whose first language is Spanish may achieve higher scores on a probe for prepositions long after students whose first language is English, because spatial concepts are less concrete in Spanish than they are in English. The research done for this study required fifty-five bilingual children ages 5 to 6, to complete both receptive and expressive tasks in Spanish and English.

Congruent to many other studies in this bibliography, the results show that while they performed the tasks with differing levels of accuracy than their monolingual peers, the bilingual children still performed the tasks within the range of normal development for monolinguals. For my purposes, the more interesting results of the study were how depending on the language in which the tasks were completed, there were different patterns as to which tasks were completed easily and which were completed with more difficulty. These results clearly illustrate that bilingual peers adhere to language acquisition patterns unique to those of their monolingual counterparts.

This research, among many of the other studies reviewed here, reveal the importance of conducting authentic and holistic assessments in both English and Spanish when gathering data on bilingual students.

Winsler, A., Diaz, R.M., Espinosa, L., & Rodriguez, J.L. (1999). When learning a second language does not mean losing the first: Bilingual language development in low-income, Spanish-speaking children attending bilingual preschool. *Child Development*, 70(2), 349-362.

This study was based on previous research conducted by one of the co-authors (Rodriguez). The current study succeeded in addressing the common concern Latino-Americans have about subtractive bilingualism. The concern is that English is the majority language in American society, and while Latino-American students learn English in school and speak it with their peers, they somewhat lose their ability to speak Spanish, the minority language of the two. The study addressed this concern by assessing pre-school bilingual students enrolled in a bilingual program from low-income families, and comparing their Spanish and English language skills to the Spanish and English language skills of their peers who stayed at home and received no pre-schooling.

The researchers conducted two studies. The first study tested the differences between the language development in both Spanish and English of the children enrolled in bilingual preschool for one year and the bilingual language development of the children who remained at home. The results showed that the children enrolled in preschool overall achieved higher scores on English language tasks than the children who stayed home, but remained equivalent to them on Spanish language tasks. The second study tested the differences between the language development of both Spanish and English of the children enrolled in bilingual preschool for two years and the bilingual language development of the children who remained at home. The results of this study were exactly the same as the first. The children who attended bilingual preschool achieved higher scores on English language tasks than the children who stayed home, but remained equivalent to them in skill level on Spanish language tasks. In summary, bilingual preschool can be an effective way to promote additive bilingualism in young children from low-income Latino families.

One concern I have about the results of this test is the authors used the PPVT-R and its Spanish version, the TVIP, to measure qualities of expressive language of all participants in Spanish and English. I have gathered from other readings in this bibliography that these tests, especially the TVIP, are not necessarily culturally or linguistically sensitive to native Spanish speakers. This may have caused inaccurate results in this study.