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ABSTRACT (100-200 WORDS):

This study compares dictated spelling tests with free writing to determine which method more accurately and extensively portrays Spanish spelling ability in bilingual (Spanish-English) 3rd grade students. Participants included 34 bilingual students in a Spanish/English classroom that has instruction in English and Spanish in order to get students to minimum English proficiency levels appropriate for grade level. Results may aid educators in the collection of more appropriate evidence to identify underlying spelling pattern errors and facilitate Response to Intervention (RtI) decisions for struggling students. While students had more opportunities to demonstrate skills in free writing tasks, dictated tests ensured that all spelling patterns were evaluated.

University Honors Program

Capstone Approval Page

Capstone Title (print or type)

Evaluation of Native Language Spelling in Spanish-
English Speaking Students: Differences Between
Dictated Spelling Tests and Free Writing Tasks

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Evaluation of Native Language Spelling in Spanish-English Speaking Students

Differences Between Dictated Spelling Tests and Free
Writing Tasks

Breanna Moore

Faculty Advisor: Dr. Patricia Tattersal

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Common Core State Standards, now adopted by 45 states, stress proficiency in literate language. Efficient tools are necessary in order to identify areas of relative strength and weakness within children as well as differences between children for effective differential instruction within the diverse elementary classroom. Professionals need to be able to readily collect evidence to support Response to Intervention (RtI) intervention decisions for struggling students.

The development of written language varies from person to person and one way to look at it is through categories – the categories are not like stages where there is a linear path needed to obtain base skills before advanced skills, but skills only loosely related yet all needed for successful spelling (Defior & Serrano, 2005). Spelling can be broken down into phonologic, orthographic, and morphologic skills, and a mastery of all three is required to be a proficient speller, providing a partial explanation why spelling is a nonlinear learning process (Bahr, Silliman, Berninger & Dow, 2012; Bourassa & Treiman, 2001). There is a strong connection between spoken language and written language, meaning the errors that students make in spelling often reflect spoken simplifications of sound (Bahr et al., 2012).

Spelling Proficiency in Spanish-English Speakers

Although the Spanish language has been proven to be a more “transparent” language, indicating that the mapping of sounds to letters is consistent, Defior and Serrano (2005) proved that there are no qualitative differences between Spanish and English spelling development even though English is considered to be significantly less predictable. Despite the difference in transparency between Spanish and English, both languages have similar causes of misspellings, and break the basic universal phonemic principle (one grapheme for every phoneme, one phoneme for every grapheme) (Cañado, 2005). Because of these fundamental similarities, spelling in each language can be taught in a similar manner; just as the causes for errors can be just as meaningful in one language as the other.

Previously, most studies have focused on the Spanish influence on English spelling in bilingual students (e.g., Howard, Green & Arteagoitia, 2012; Silliman, Bahr, Garrett, 2009; Zutell & Allen, 1988). Howard, Green, and Arteagoitia (2012) looked at the cross-linguistic influence of Spanish on different aspects of written English to determine when children should be expected to no longer show evidence of native language influence. After following 220 students enrolled in four two-way immersion programs for three years (second to fourth grade), researchers determined that virtually all transfer was gone as of fourth grade. This study utilized the English Developmental Contrastive Spelling Test (a dictated word task).

Julbe-Delgado, Bahr, Silliman, and Soto (2009) evaluated spelling errors of middle school bilingual students in Florida to determine the influence of English as a second language on their native language (Spanish). They focused on what types of errors were made, and how these errors fit into linguistic categories. The participants, grades six through eight, were enrolled in an ESL class, although they were at grade level as compared to English speaking peers. The 20 participants responded to two expository prompts and two narrative prompts in each language. The writing samples were analyzed with the Phonological Orthographic Morphological Assessment of Spelling – Spanish (POMAS-S) which qualitatively describes Spanish spelling errors. The researchers found that the errors made were specific to Spanish (English had little influence) and that unlike their age matched English speaking peers, there were fewer

phonological errors. The majority of the errors were orthographic in nature, specifically focusing on accents, dialectical differences, word boundaries, and complex letter-sound relationships.

Assessing Spelling Proficiency

Traditionally, spelling skills have been assessed by writing words to dictation, identifying the correctly spelled word from a group of foils, or reviewing errors in a free writing sample. Variations with expansions of these methods can be found throughout the literature. For example, Apel, Wilson-Fowler, Goldstein, and Masterson (2008) used a dictated spelling task and a scoring system based on phonemes, bigrams (two adjoining sounds within a word), and syllable shapes to analyze the spelling of 66 first grade students. They found this to be an effective way to note developmental change.

The value of identification, although it is a formal standardized way to assess spelling, has been questioned and dismissed by many researchers (e.g., Ehri, 2000; Masterson & Apel, 2000). Because of these findings, this method of assessing spelling proficiency was not considered for this study.

In another study focused on how English spelling developed by grade level, Apel, Wilson-Fowler, Brimo, and Puranik (2009) examined differences between grades as well as differences between narrative and expository prompts. This study looked at 132 students in first through fourth grade and had them respond to a narrative and expository prompt to evaluate the differences in vowel errors. Grade level differences resulted in difference in general spelling accuracy, and differences in genre resulted in differences in the type of spelling error. Unfortunately this study focused mainly on vowel errors; therefore, these results may not transfer when looking at consonant errors.

Current Study

Very little literature is available on the influence of English as a second language on the Spanish spelling ability of native Spanish speakers. Understanding of spelling ability in an individual's first language may aid in instruction in both the first and second languages-especially in those with language learning deficits. Gathering information regarding spelling ability can be done in a variety of ways. For purposes of instruction, is the data collect in one manner more useful than another?

Although there are three basic methods to assess spelling, dictated, recognition, and connected writing, no studies were found that contrasted the sampling methods. Which testing method is the most effective way to determine native language spelling skills of a Spanish-English speaking student? Is it necessary for a teacher to give a dictated list of words which are chosen to ensure adequate sampling of spelling patterns, or can the teacher rely on curriculum-based measures such as free writing to gather a representative view of the child's spelling pattern knowledge? Specifically:

- Is there a difference in the results obtained by a dictated test versus free writing?
- If so, which method more accurately and extensively portrays spelling ability in 3rd grade students?

Methodology

An IRB was submitted to the NIU Office of Compliance in the Summer 2012; it was approved on August 7, 2012. The researcher then began to search for a school district willing to support the project. In late October, 2012, a district was identified.

Participants

Thirty-four 3rd grade students in two bilingual (Spanish-English) classrooms in the suburban Chicago area participated in the study. All students spoke Spanish as their native language and met district qualifications for bilingual placement for academic instruction. These students were enrolled in a transitional bilingual 3rd grade program; meaning they have not met minimum standards from ACCESS state testing that would allow them to be transitioned into a mainstream English only classroom.

Before the study could be completed, permission slips were sent home with each student in the targeted classrooms. A description of the study and the tasks involved were explained in both English and in Spanish. Those parents who had not responded by the deadline will receive a follow-up phone call to inquire about their willingness to have their child participate. This addressed any concern regarding parental literacy level.

Measure

The students were asked to complete the Spanish Spelling Inventory from *Words Their Way with English Language Learners* (Bear, Helman, Invernizzi, Templeton, & Johnston, 2007) (see Figure 1) dictated to them by their teacher. The teacher said the word, presented a sentence containing the word, and repeated the word again. One sentence (number 7) lacked the target word (brincar) and used a synonym (saltar) instead, so the sentence was rewritten in order to include the target word. The students wrote the word to the best of their ability on standard lined paper placed in front of them. The students were administered 20 of the 25 words felt by the researcher to be appropriate given their grade level. They were then given 15 minutes to write a short narrative about what they did over the summer. Both papers were collected, and students thanked for their participation.

Figure 1. Words Their Way Spanish Spelling Inventory (Bear et al., 2007)

Sentences to use with Spanish Spelling Inventory

1. el	Me gusta el café. <i>el</i>
2. suma	Ella hace la suma bien. <i>suma</i>
3. pan	Quiero queso con mi pan. <i>pan</i>
4. red	Uso una red para pescar. <i>red</i>
5. campos	Los campos están listos para plantar. <i>campos</i>
6. plancha	Ten cuidado con la plancha. <i>plancha</i>
7. brincar	¿Quieres saltar a la cuerda? <i>brincar</i>
8. fresa	La fresa es roja y dulce. <i>fresa</i>
9. aprieto	Yo aprieto la mano de mi hermanito. <i>aprieto</i>
10. guisante	El guisante crece bien en el jardín. <i>guisante</i>
11. quisiera	Yo quisiera viajar a la luna algún día. <i>quisiera</i>
12. gigante	Había un gigante feroz en el cuento. <i>gigante</i>
13. actrices	La película tenía buenas actrices. <i>actrices</i>
14. voy	Ya me voy a la casa. <i>voy</i>
15. hierro	Es fuerte porque está hecho de hierro. <i>hierro</i>
16. bilingüe	Cuando sabes dos idiomas eres bilingüe. <i>bilingüe</i>
17. lápices	Todos mis lápices están rotos. <i>lápices</i>
18. extraño	Es muy extraño que no hayan llegado. <i>extraño</i>
19. autobús	El autobús nos lleva al parque. <i>autobús</i>
20. haya	Espero que haya tiempo para jugar. <i>haya</i>
21. geometría	La geometría es parte de las matemáticas. <i>geometría</i>
22. camión	El camión tiene muchos dientes. <i>camión</i>
23. intangible	No puedes conseguir lo que es intangible. <i>intangible</i>
24. herbívoro	El toro no come carne, es herbívoro. <i>herbívoro</i>
25. psicólogo	El psicólogo viene a la clase a ayudarnos. <i>psicólogo</i>

Testing Procedure

The student investigator and one of the faculty mentors reviewed the procedure with the two classroom teachers. On the targeted day in December, 2012, the student investigator and the faculty mentor arrived at the classrooms. All students were invited to participate in the two spelling activities and assent forms were distributed, explained, and signed. If the parent did not grant permission or if the student chose not to be a part of the study, s/he were given the same prompts as the other students, but the responses were left with the teacher and were not analyzed as part of the data. The dictated test was administered followed immediately by the free writing task.

Once testing was completed, spelling errors in both tasks were assessed qualitatively by analyzing developmental patterns using the Feature Guide Analysis grid from *Words Their Way with English Language Learners* (Figure 2) in order to answer the research question as to which method more accurately and extensively portrays spelling ability in bilingual 3rd grade students. The documents were scored independently by two of the researchers. At this point, preliminary results of Interscorer Reliability, based on 10 of the 34 students, indicate 97.5% agreement for the dictated test and 99% for the free writing. If a discrepancy was found, a third professional was consulted. Scoring will continue until all documents have been scored by both of the researchers.

Figure 2. Feature Guide Analysis (Bear et al., 2007)

Feature Guide for Spanish Spelling Inventory

Directions: Check that features that are present in each student's spelling, or the portion they read, the student spelled correctly. Add the final column of features in which the student missed more than one feature. Check the spelling stage that summarizes the student's development. Begin numbers in the feature column.

Estados de la Escritura		Características										Etiquetas			
		Vocal	Consonante	Vocales	Representación	Dígrafos	Consonantes	Dígrafos	Letras	Dígrafos	Letras	Letras	Letras	Letras	Letras
		Presente	Presente	Presente	de Símbolos	Stabos	Letras	Stabos	Stabos	Stabos	Stabos	Stabos	Stabos	Stabos	
1	en														
2	suma														
3	pan														
4	red														
5	carro														
6	plata														
7	brincar														
8	tres														
9	aprieto														
10	gusano														
11	quiere														
12	quiere														
13	actores														
14	vey														
15	facio														
16	delgado														
17	delgado														
18	delgado														
19	delgado														
20	delgado														
21	delgado														
22	delgado														
23	delgado														
24	delgado														
25	delgado														
26	delgado														
27	delgado														
28	delgado														
29	delgado														
30	delgado														
31	delgado														
32	delgado														
33	delgado														
34	delgado														
Totales		(3)	(3)	(9)	(10)	(9)	(7)	(9)	(9)	(5)	(5)	(5)	(5)	(5)	

Words Spelled Correctly: 25
Feature Points: 52
Total: 77

Results

Results of the dictated sample are presented in Table 1 and results of the free writing in Table 2.

Table 1. Dictated Sample

	Vocal	Consonante	Vocales/Consonantes	Sonidos	Dígrafos	Letras Mudas	Díptongos	Tildes/Plurales
1	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	5/7 71.5%	2/4 50%	1/4 25%
2	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	5/7 71.5%	2/4 50%	2/4 50%
3	3/3 100%	3/3 100%	5/5 100%	10/10 100%	4/5 80%	5/7 71.5%	2/4 50%	2/4 50%
4	3/3 100%	3/3 100%	5/5 100%	9/10 90%	5/5 100%	6/7 85.7%	2/4 50%	2/4 50%
5	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	7/7 100%	3/4 75%	2/4 50%
6	3/3 100%	3/3 100%	5/5 100%	9/10 90%	3/5 60%	5/7 71.5%	1/4 25%	1/4 25%
7	3/3 100%	3/3 100%	4/5 80%	10/10 100%	3/5 60%	5/7 71.5%	2/4 50%	3/4 75%
8	3/3 100%	3/3 100%	4/5 80%	10/10 100%	4/5 80%	5/7 71.5%	1/4 25%	0/4 0%
9	3/3 100%	3/3 100%	5/5 100%	10/10 100%	4/5 80%	6/7 85.7%	3/4 75%	1/4 25%
10	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	4/7 57.1%	1/4 25%	1/4 25%
11	3/3 100%	3/3 100%	5/5 100%	10/10 100%	4/5 80%	2/7 28.6%	1/4 25%	0/4 0%
12	2/3 66.7%	3/3 100%	4/5 80%	10/10 100%	5/5 100%	7/7 100%	3/4 75%	1/4 25%
13	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	6/7 85.7%	2/4 50%	1/4 25%
14	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	6/7 85.7%	3/4 75%	2/4 50%
15	3/3 100%	3/3 100%	5/5 100%	9/10 90%	3/5 60%	2/7 28.6%	1/4 25%	0/4 0%
16	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	3/7 43%	1/4 25%	1/4 25%
17	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	6/7 85.7%	2/4 50%	2/4 50%
18	3/3 100%	3/3 100%	5/5 100%	10/10 100%	4/5 80%	3/7 43%	2/4 50%	0/4 0%
19	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	2/7 28.6%	2/4 50%	1/4 25%
20	3/3 100%	3/3 100%	5/5 100%	9/10 90%	5/5 100%	5/7 71.5%	3/4 75%	2/4 50%
21	3/3 100%	3/3 100%	5/5 100%	10/10 100%	2/5 40%	4/7 57.1%	1/4 25%	2/4 50%
22	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	4/7 57.1%	3/4 75%	1/4 25%
23	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	4/7 57.1%	2/4 50%	1/4 25%
24	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	4/7 57.1%	2/4 50%	1/4 25%
25	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	4/7 57.1%	2/4 50%	2/4 50%
26	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	5/7 71.5%	2/4 50%	1/4 25%
27	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	5/7 71.5%	2/4 50%	2/4 50%
28	3/3 100%	3/3 100%	5/5 100%	9/10 90%	5/5 100%	7/7 100%	4/4 100%	2/4 50%
29	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	6/7 85.7%	2/4 50%	1/4 25%
30	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	7/7 100%	3/4 75%	2/4 50%
31	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	5/7 71.5%	2/4 50%	3/4 75%
32	3/3 100%	3/3 100%	5/5 100%	10/10 100%	3/5 60%	5/7 71.5%	1/4 25%	0/4 0%
33	3/3 100%	3/3 100%	5/5 100%	10/10 100%	4/5 80%	4/7 57.1%	2/4 50%	2/4 50%
34	3/3 100%	3/3 100%	5/5 100%	10/10 100%	5/5 100%	6/7 85.7%	2/4 50%	1/4 25%

Table 2.
Free Writing

	Vocal	Consonante	Vocales/Consonantes	Sonidos	Dígrafos	Letras Mudas	Diptongos	Tildes/Plurales
1	16/16 100%	14/14 100%	8/8 100%	10/10 100%	4/4 100%	3/6 50%	4/4 100%	0/1 0%
2	53/53 100%	49/49 100%	33/34 97%	52/55 94.5%	22/22 100%	25/27 92.6%	13/15 86.7%	5/11 45.5%
3	15/16 93.8%	13/13 100%	16/16 100%	25/25 100%	7/7 100%	12/15 80%	3/3 100%	4/4 100%
4	28/29 96.6%	33/33 100%	39/40 97.5%	30/31 96.8%	11/11 100%	18/22 81%	2/4 50%	11/12 91.7%
5	39/40 97.5%	41/41 100%	30/31 96.8%	29/29 100%	17/17 100%	19/24 79.2%	17/19 89.5%	4/10 40%
6	30/31 96.8%	27/27 100%	21/23 91.3%	17/21 81%	10/10 100%	18/21 85.7%	6/13 46.2%	2/6 33.3%
7	2/2 100%	1/1 100%	1/1 100%	1/1 100%	0/0	0/2 0%	1/1 100%	0/0
8	19/19 100%	25/25 100%	12/13 92.3%	13/15 86.7%	6/6 100%	8/10 80%	3/4 75%	6/7 85.7%
9	30/30 100%	25/25 100%	20/20 100%	22/22 100%	14/14 100%	9/12 75%	7/7 100%	2/5 40%
10	27/27 100%	29/29 100%	17/17 100%	16/17 94.1%	5/5 100%	16/23 69.6%	5/5 100%	3/7 42.9%
11	16/17 94.1%	20/20 100%	14/14 100%	18/19 94.7%	2/3 66.7%	6/6 100%	11/12 91.7%	3/4 75%
12	26/27 96.3%	26/26 100%	23/23 100%	25/25 100%	14/14 100%	12/12 100%	7/8 87.5%	4/5 80%
13	28/28 100%	24/24 100%	19/19 100%	20/20 100%	12/13 92.3%	12/14 85.7%	6/7 85.7%	0/0
14	23/23 100%	20/20 100%	16/17 94.1%	18/18 100%	9/9 100%	13/14 93%	7/7 100%	4/6 66.7%
15	24/24 100%	24/24 100%	13/14 93%	21/22 95.5%	6/8 75%	5/9 55.6%	5/8 62.5%	2/3 66.7%
16	27/27 100%	24/24 100%	9/9 100%	22/22 100%	7/7 100%	7/11 63.6%	5/9 55.6%	1/1 100%
17	52/53 98.1%	47/47 100%	38/39 97.4%	40/40 100%	16/16 100%	22/28 78.6%	10/10 100%	9/11 81.8%
18	36/38 94.7%	39/39 100%	34/36 94.4%	35/36 97.2%	17/17 100%	18/31 58%	9/10 90%	7/8 87.5%
19								
20	16/16 100%	17/17 100%	16/17 94.1%	17/18 94.4%	1/1 100%	8/8 100%	3/4 75%	2/5 40%
21	25/26 96.2%	23/24 95.8%	17/18 94.4%	22/23 95.7%	9/10 90%	7/9 77.8%	6/7 85.7%	3/3 100%
22	20/21 95.2%	19/19 100%	6/6 100%	19/19 100%	7/7 100%	2/5 40%	2/2 100%	3/5 60%
23	17/17 100%	15/16 93.8%	7/7 100%	9/9 100%	6/6 100%	4/6 66.7%	4/5 80%	0/2 0%
24	41/44 93.1%	40/40 100%	28/28 100%	44/47 93.6%	16/17 94.1%	14/19 73.7%	8/8 100%	5/14 5.7%
25	6/6 100%	6/6 100%	4/4 100%	4/6 66.7%	3/3 100%	4/6 66.7%	2/2 100%	1/3 33.3%
26	35/36 97.2%	34/34 100%	27/27 100%	42/44 95.5%	12/14 85.7%	22/24 91.7%	5/5 100%	4/7 57.1%
27	13/13 100%	12/12 100%	10/10 100%	15/16 93.8%	1/1 100%	7/8 87.5%	4/5 80%	0/2 0%
28	11/12 91.7%	12/12 100%	6/6 100%	9/9 100%	5/5 100%	5/6 83.3%	6/7 85.7%	2/2 100%
29	59/59 100%	68/68 100%	35/35 100%	48/48 100%	21/21 100%	34/35 97%	13/13 100%	6/12 50%
30	29/30 96.7%	30/30 100%	13/13 100%	25/25 100%	15/15 100%	8/10 80%	5/5 100%	4/12 33.3%
31	39/39 100%	39/39 100%	32/32 100%	42/43 97.7%	23/23 100%	19/20 95%	9/11 81.8%	2/4 50%
32	22/22 100%	20/22 91%	11/11 100%	22/22 100%	16/16 100%	12/14 85.7%	5/7 71.4%	2/7 28.6%
33	53/53 100%	46/46 100%	43/44 97.7%	43/45 95.6%	28/28 100%	17/23 73.9%	11/11 100%	5/8 62.5%
34	45/45 100%	46/46 100%	37/37 100%	33/33 100%	11/11 100%	18/21 85.7%	11/11 100%	4/10 40%

Quantitative Findings:

In order to answer the first research question as to whether there is a difference in the results obtained by a dictated test versus free writing, paired t-tests were conducted for each of the spelling categories. No significant statistical difference was found between the two methods at $p < .05$ for vocales, consonante, vocales/consonantes, sonidos, and letras mudas. There was significance found for dígrafos (medium effect size), and diptongos, and tildes/plurales (large effect size) (see Table 3).

Table 3.

Pairwise Comparisons Statistics for Sampling Method by Spelling Pattern

	Mean (SD)	Mean Difference	SE	t	Sig.	Effect Size (r)
Vocales (n =)						
Dictated	98.99(5.797)	.861	1.045	.823	.416	
Free	98.13(2.504)					
Consonante (n =)						
Dictated	100 (.000)	.588	.345	1.704	.098	
Free	99.41 (1.982)					
Vocales/Consonantes (n =)						
Dictated	98.18(5.839)	.000	1.069	.000	1.000	
Free	98.18(2.766)					
Sonidos (n =)						
Dictated	98.48(3.641)	2.318	1.242	1.866	.071	
Free	96.17 (6.772)					
Digrafos (n =)						
Dictated	90.63(16.052)	-6.369	2.676	-2.380	.024	.39
Free	96.99 (7.711)					
Letras Mudas (n =)						
Dictated	70.58(18.866)	-6.152	4.003	-1.537	.134	
Free	76.74(20.035)					
Diptongos (n =)						
Dictated	50.76(19.248)	-36.606	3.423	-10.694	.000	.88
Free	87.36(15.577)					
Tildes/Plurales (n =)						
Dictated	33.06(19.777)	-22.655	6.418	-3.530	.001	.54
Free	55.72(29.595)					

Results of significant findings must be viewed with caution as they may be more reflective of the sampling technique and difference in opportunity to exhibit skill rather than a qualitative difference in the students' performance. In order to discern whether these findings were indeed due to student skill level, qualitative analysis was performed.

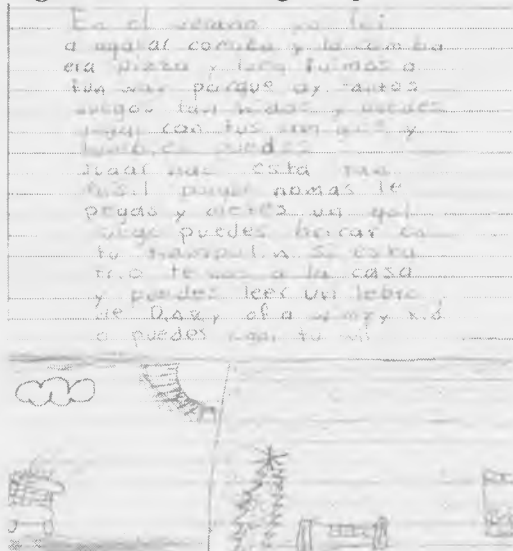
Qualitative Findings:

In order to answer the second question as to which method more accurately and extensively portrays spelling ability in 3rd grade students, the data were examined qualitatively. Students showed mastery of early patterns (vocales, consonantes, vocals/consonantes, sonidos) in both free writing and dictated writing tasks, and difficulty with more advanced patterns (letras mudas, diptongos/homofonos, tildes/plurales/afijos). For the three categories that were found to contain

significant statistical difference, researchers evaluated on which test the students performed better. Almost all students (30) performed better as indicated by a percent correct (number of correct features divided by the total number of attempts for that feature) on the free writing than the dictated test in the diptongo category; 22 of the students performed better on the free writing than dictated writing in tildes/plurales. Although there was significant statistical difference for the dígrafos, 19 students performed equally well on both tests, 9 performed better on free writing, and 5 performed better on the dictated test.

The researchers hypothesized that the students may have selected words they were more comfortable with for the free writing task, which, in addition to increased opportunity to demonstrate mastery of each category, may explain, at least in part, the higher scores in free writing tasks as the students often did not attempt the later developing contexts within the developmental patterns (Figure 3).

Figure 3. Free writing sample



When presented the words from the dictated list, the students had limited opportunities to show their skill in the various patterns but the measure sampled skills across and within patterns from early developing to advanced (Figure 4).

Figure 4. Dictated word list

1	el	14	vas
2	suma	15	acero
3	pan	16	bilique
4	red	17	lapices
5	campos	18	extraño
6	plancha	19	autobus
7	beicar	20	aya
8	fresca		
9	apuesto		
10	gisante		
11	ciñera		
12	gigante		
13	lapices		

In both test procedures, the category that caused the most problems for students was accent marks (tildes), which could reflect the curricular emphasis on English literacy standards rather than advanced education in Spanish spelling. These findings reflect those of Julbe-Delgado et al. (2009).

Conclusions

The goal of this study was to further the literature regarding effective spelling assessment in the bilingual (Spanish-English) speaking elementary student. Both methods assessed student knowledge of spelling patterns rather than targeting single word “correctness.” The dictated test allowed sampling students’ knowledge of spelling patterns from early developing through advanced levels. The free writing task allowed a more in-depth view of students’ strengths and weaknesses due to more opportunities to use the spelling patterns; however, the student may avoid the more advanced patterns or more difficult contexts within an advanced pattern.

The results of this small study indicate that teachers can obtain crucial information to guide instruction of spelling in Spanish using either of these two methods. However, these results should be viewed with caution as this study was conducted on a small number ($n=33$) of 3rd grade bilingual students from a suburban Midwestern school.

The preliminary results of this study were presented at the annual conference of the Illinois Speech-Language-Hearing Association in February of 2013 (Appendix A); this Honors Capstone paper includes additional qualitative analysis of the data. Further qualitative analysis may reveal other significant differences between the two test procedures.

This study was limited in both sample size ($n = 33$) and age (3rd grade students). Future research should include more students from varying grades and geographic locations in order to better discern the most effective way to gather data to inform differential instruction for children within linguistically diverse classrooms and address the Common Core Standards.

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Appendix A
Poster Presentation
Illinois Speech-Language –Hearing
Association Convention
February, 2013

Evaluation of Native Language Spelling in Spanish-English Speaking Students: Differences Between Dictated Spelling Tests and Free Writing Tasks

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Introduction

Common Core Standards stress proficiency in literate language. Efficient tools are necessary in order to identify areas of relative strength and weakness within children as well as differences between children for effective differential instruction within the diverse elementary classroom. Professionals need to be able to readily collect evidence to support Response to Intervention (RtI) intervention decisions for struggling students.

Background

- Development of written language varies from person to person
- Spelling development can be viewed through categories—not like stages where there is a linear path needed to obtain base skills before advanced skills, but skills only loosely related yet all needed for successful spelling (Defior & Serrano, 2005).
- Spelling can be broken down into phonologic, orthographic, and morphologic skills; a mastery of all three is required to be a proficient speller (Bahr, Silliman, Berninger & Dow, 2012).

- Although the Spanish language is considered a more “transparent” language, indicating that the mapping of sounds to letters is consistent, there are no qualitative differences between Spanish and English spelling development (Defior & Serrano, 2005).
- Previous studies have focused on the Spanish influence on English spelling (e.g., Silliman, Bahr, Garrett, 2009; Zutell & Allen, 1988).
- Limited research is available on Spanish misspellings in bilingual students.

- Julbe-Delgado, Bahr, Silliman, and Soto (2009) evaluated Spanish spelling errors of middle school bilingual students using the Phonological Orthographic Morphological Assessment of Spelling – Spanish (POMAS-S). They found the majority of the errors to be orthographic in nature, specifically focusing on accents, dialectal differences, word boundaries, and complex letter-sound relationships not thought to be of English influence.

- Spelling has been assessed using dictated lists as well as free writing; no study compares the two methods for assessing Spanish spelling skills in elementary age Spanish-English speaking students.

Research Questions

- Is there a difference in the results obtained by a dictated test versus free writing?
- If so, which method more accurately and extensively portrays spelling ability in 3rd grade students?

Methods

Participants: 34 3rd grade students in two bilingual (Spanish-English) classrooms.

Measures:

- Students were asked to spell a list of 20 words taken from the *Words Their Way Spanish Spelling Inventory*, dictated to them by their teacher.
- Students were then given 15 minutes to write a short narrative about what they did over the summer.

Analysis:

- Words from both methods were analyzed using the Feature Guide Analysis Grid provided with the *Words Their Way Spanish Spelling Inventory*

Sentences to use with Spanish Spelling Inventory

1. suma	Mergual se cañó. <i>er</i>
2. suma	Ella hizo la suma <i>er</i> suma
3. pan	Quiero comprar un pan. <i>er</i> pan
4. ard	¡No! ¡No! ¡No! ¡No! ¡No! <i>er</i> ard
5. campo	Los campos están llenos para plantar. <i>er</i> campo
6. planche	¡Ten cuidado con la planche! <i>er</i> planche
7. brincar	¡Quiero saltar a la cuerda! <i>er</i> brincar
8. rosa	La rosa es roja y dulce. <i>er</i> rosa
9. aprieto	¡Yo aprieto la mano de mi hermano. <i>er</i> aprieto
10. guisante	El guisante crece bien en el jardín. <i>er</i> guisante
11. guisante	¡Yo guisante voy a tu lado algún día. <i>er</i> guisante
12. guisante	¡Hola! ¡Hola! ¡Hola! ¡Hola! ¡Hola! <i>er</i> guisante
13. arriete	La palabra arriete siempre aparece. <i>er</i> arriete
14. voy	¡Me voy a la casa. <i>er</i> voy
15. hector	Es hector porque está hecho de tierra. <i>er</i> hector
16. bilagay	¡Cuando voy a bilagay voy a bilagay. <i>er</i> bilagay
17. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
18. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
19. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
20. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
21. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
22. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
23. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
24. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
25. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
26. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
27. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
28. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
29. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
30. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
31. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
32. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
33. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
34. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
35. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
36. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
37. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
38. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
39. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
40. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
41. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
42. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
43. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
44. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
45. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
46. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
47. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
48. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
49. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay
50. bilagay	¡Yo voy a bilagay. <i>er</i> bilagay

Feature Guide for Spanish Spelling Inventory

Word	Phonological	Orthographic	Morphological
suma	100%	100%	100%
pan	100%	100%	100%
ard	100%	100%	100%
campo	100%	100%	100%
planche	100%	100%	100%
brincar	100%	100%	100%
rosa	100%	100%	100%
aprieto	100%	100%	100%
guisante	100%	100%	100%
arriete	100%	100%	100%
voy	100%	100%	100%
hector	100%	100%	100%
bilagay	100%	100%	100%

Dictated Word List:

1. suma	100%
2. suma	100%
3. pan	100%
4. ard	100%
5. campo	100%
6. planche	100%
7. brincar	100%
8. rosa	100%
9. aprieto	100%
10. guisante	100%
11. guisante	100%
12. guisante	100%
13. arriete	100%
14. voy	100%
15. hector	100%
16. bilagay	100%
17. bilagay	100%
18. bilagay	100%
19. bilagay	100%
20. bilagay	100%

Free Writing Sample:



Results

Dictated Sample

Word	Phonological	Orthographic	Morphological
1. suma	100%	100%	100%
2. suma	100%	100%	100%
3. pan	100%	100%	100%
4. ard	100%	100%	100%
5. campo	100%	100%	100%
6. planche	100%	100%	100%
7. brincar	100%	100%	100%
8. rosa	100%	100%	100%
9. aprieto	100%	100%	100%
10. guisante	100%	100%	100%
11. guisante	100%	100%	100%
12. guisante	100%	100%	100%
13. arriete	100%	100%	100%
14. voy	100%	100%	100%
15. hector	100%	100%	100%
16. bilagay	100%	100%	100%
17. bilagay	100%	100%	100%
18. bilagay	100%	100%	100%
19. bilagay	100%	100%	100%
20. bilagay	100%	100%	100%

Free Writing

Word	Phonological	Orthographic	Morphological
1. suma	100%	100%	100%
2. suma	100%	100%	100%
3. pan	100%	100%	100%
4. ard	100%	100%	100%
5. campo	100%	100%	100%
6. planche	100%	100%	100%
7. brincar	100%	100%	100%
8. rosa	100%	100%	100%
9. aprieto	100%	100%	100%
10. guisante	100%	100%	100%
11. guisante	100%	100%	100%
12. guisante	100%	100%	100%
13. arriete	100%	100%	100%
14. voy	100%	100%	100%
15. hector	100%	100%	100%
16. bilagay	100%	100%	100%
17. bilagay	100%	100%	100%
18. bilagay	100%	100%	100%
19. bilagay	100%	100%	100%
20. bilagay	100%	100%	100%

Quantitative Analysis

- Preliminary t-test results indicate no significant statistical difference found at $p < .05$ for vocals, consonante, vocales/consonantes, sonidos, and letras mudas.
- Preliminary t-test results indicate significant statistical difference found at $p < .05$ for: Digrafos $t(31) = -2.38, p = .025, r = .39$; Diftongos $t(32) = -10.694, p = .000, r = .88$; Tildes/Plurales $t(30) = -3.530, p = .001, r = .54$
- Results of significant findings must be viewed with caution as they may be more reflective of the sampling technique and difference in opportunity to exhibit skill rather than qualitative difference in the students' performance.

Qualitative Analysis

- Preliminary results indicate:
- Both measures reflected that the majority of the children have mastered the earlier developing patterns of vocal consonante, vocales/consonantes, and sonidos.
 - Both measures reflect the difficulty these 3rd grade students with the more advanced patterns of letras mudas, diftongos/homofonos, and tildes/plurales/afijos.
 - Nature of the errors in the dictated sample were reflective of those found in the free writing.
 - The majority of the students had difficulty with accent marks indicating the need for more explicit instruction in the teaching of accent use. (agreement with Julbe-Delgado et al., 2009).
 - Free writing provided many more opportunities for assessing the patterns.
 - Interscorer reliability: 97.5% dictated; 99% free (10/34)

Conclusions & Future Direction

- Preliminary results of this small study indicate that teachers can obtain crucial information to guide instruction of spelling in Spanish using either of these two methods.
- Preliminary results should be viewed with caution as the study was conducted on a small number (n=34) of 3rd grade bilingual students from a suburban Midwestern school.
- These students attend a transitional bilingual 3rd grade program; they have not yet met standards based off of ACCESS state testing to be transitioned into mainstream English. Their educational background should be considered when reviewing these results.
- Future research should include more students of varying grades from a variety of geographical locations.

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