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Narrative Discourse in Bilingual English-Spanish Speakers

A Case Control Study

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Author Note

This paper was prepared to describe bilingual narratives in comparison to monolingual narratives
in typically developing children.

Abstract

The study explored differences in storytelling between bilingual English and Spanish speakers and monolingual English Speakers, differences between Spanish and English storytelling in bilingual speakers, and the relation between language ability used in storytelling and language ability used on a structured measure of language ability. Ten second and third grade children were targeted for this study – five of whom were monolingual English speakers and the other five were bilingual English-Spanish speakers. Bilingual children completed two sessions – one in English and one in Spanish – while monolingual children completed one session in English. Each session contained a narrative retell, unique narrative, and the core language score in the Clinical Evaluation of Language Fundamentals (CELF). The findings suggested that the bilingual and monolingual children performed similarly on the unique narratives; however, they performed significantly different on the narrative retells. Monolingual and bilingual children also scored similarly on the CELF examination. In addition, bilingual children scored similarly on the CELF examination in English and Spanish.

Introduction

Narratives have commonly been used in the field of speech-language pathology to evaluate children on their speech and language abilities. According to Heilmann, Miller, Nockerts, and Dunaway (2010), “analysis of oral narratives provides a rich source of data that document children’s language use in a naturalistic context [and it] is a highly effective clinical and research tool” as one short sample yields data on multiple linguistic features (p. 154).

In fact, there are many supporters of narrative retells for young Spanish speakers. Lucero (2015) analyzed a study comparing lexical and grammatical microlevel components of narrative retells in bilingual English-Spanish speakers. There were 56 first and second graders who participated in the study. Each child was tested using the Strong Narrative Retell Assessment Procedure (Strong, 1998) and the books *Frog Goes to Dinner* and *Frog, Where Are You?* by Mercer Mayer (Mayer, 1969, 1974) in both English and Spanish. The collected language samples were transcribed using the Systematic Analysis of Language Transcripts (SALT) computer program and also utilized the *Narrative Scoring Scheme* (Miller, Andriacchi, & Nockerts, 2012) to score the content of each language sample. The results of the study suggests that the mean length of utterances in words, SI, and the *Narrative Scoring Scheme* are similar across languages, with slightly lower scores in Spanish than in English. The current study has many similarities to this study as far as methodology; however, it will be investigating narrative retells and unique narratives.

Additionally, there have been a significant number studies investigating narrative development in preschool and kindergarten children. For example, Ucceli and Páez (2007) conducted a longitudinal study on narrative development with 24 English-Spanish bilingual

children from kindergarten to first grade from low socioeconomic backgrounds. The researchers gathered data during one-on-one assessments lasting approximately 45 minutes and were assessed on two different days – one in English and one in Spanish. During Ucceli and Páez’s study, narratives were elicited using pictures. The results of their study found that the total number of different words is a sensitive developmental measure in English and that in Spanish there were significant gains on the narrative story score. In a different study conducted by Bedore, Peña, Gillam, and Ho (2010), used language samples in English and Spanish to identify language abilities in 170 English-Spanish bilingual kindergarteners. to identify their language abilities. The researchers used a wordless picture book to elicit the narrative samples. It was found that mean length of utterance in English, Spanish grammar abilities, and English grammar abilities were the best predictors of language ability.

There has also been a significant amount of research comparing bilingual children with language impairments to bilingual children who are typically developing. For example, Squires et al. (2014) conducted a longitudinal study to identify the differences in storytelling in bilingual English-Spanish children with language impairments and typically-developing bilingual children from kindergarten to first grade using pictureless story books. The study had 166 participants total and found that the typically developing children made more improvements in their Spanish narrative retells than in their English retells. In addition, it was found that typically developing children made more progress with their language skills in both languages. Additionally, Iluz-Cohen and Walters (2012) studied the differences in narrative production between typical and impaired bilingual English-Hebrew speaking preschool children. The study utilized two mainstream books with pictures to elicit narratives. The results depicted similarities between the

groups for narrative structure, but differences in morphosyntactic, lexical, and code-switching measures.

Purpose of the Current Investigation

Although there have been many studies conducted comparing English and Spanish narratives in bilingual children (typical and atypical), there is currently a lack of research comparing bilingual English-Spanish narratives to monolingual English narratives. In addition, there has been a lack of research of narratives on second and third grade children. It is important to test older children's narrative abilities because there may be significant changes due to the rapid growth of language development during this time. Therefore, this study utilized both bilingual English-Spanish and monolingual English children in second and third grade. The purposes of this study were to explore (1) the differences in storytelling between bilingual English and Spanish speakers and monolingual English Speakers, (2) the differences between Spanish and English storytelling in bilingual speakers, and (3) the relation between language ability used in storytelling and language ability used on a structured measure of language ability.

Methods

Recruitment

The researchers obtained approval from the Institutional Review Board at Grand Valley State University and from a school district in the West Michigan area before beginning the study. Once this permission was obtained, 250 packets with an introductory letter, consent forms, and background forms in both English and Spanish were sent home with students. Over the next three weeks, 24 consent forms were returned in sealed envelopes. The student researcher, Sarah Young, contacted all parents that returned consent forms and 12 parents enrolled their child in the study. However, due to scheduling conflicts, 2 out of the 12 children were unable to attend

their appointment. Therefore, 10 children were tested – five monolingual English speakers and five bilingual English-Spanish speakers.

Participants

The children ranged from seven years, two months to eight years, 11 months. The bilingual group contained three males and two females, while the monolingual group contained one male and four females. The average age of the bilingual group was 7.794 years old and 8.524 for the monolingual group.

Parent education varied between each child. In the monolingual group, there was one parent who received an associate's degree, three with master's degrees, and one with a doctorate degree. In the bilingual group, two parents received GEDs, one was a high school graduate, one received an associate's degree, and one received a doctorate degree.

Nine of the children had parents from the United States, while one child in the bilingual group had a parent from Mexico. Nine of the parents' native language was English and one parent's native language was Spanish. Three parents' second language was Spanish and one parent had a second language of German.

Seven of the children's native language was English, two of the children's native language was Spanish, and one child learned English and Spanish simultaneously. Two children learned Spanish as a second language and two children learned English as a second language. Three of the children learned their second language at school and one learned it at home. Two children learned their second language from interacting with people, while two learned their second language from formal instruction and interacting with people. Nine of the children did not have any known deficits and one had an articulation disorder.

Parents of bilingual children were asked to rate their child’s language proficiency on the background forms. Each parent rated their child’s proficiency in reading, writing, listening, and speaking for both English and Spanish on a one to 10 scale. Ten stands for completely proficient and one stands for minimal proficiency. One parent did not rate his or her child on speaking and listening proficiency in English and Spanish. This was marked with a “NR” on the chart, which stood for no response. The average proficiency in English (taken from all numbers in English categories and averaged) was 8.056 and the average proficiency in Spanish (taken from all numbers in Spanish categories and averaged) was 7.056. On average, the English proficiency category that the parent’s ranked their children as being the most proficient in was speaking, while in Spanish the parents ranked their children as being more proficient in listening. These scores will later be compared to the child’s performance on a standardized language exam to determine if the scores correlated.

Table 1. Parental Ratings of Child’s Language Proficiency in English and Spanish

	Participant’s ID				
	122345	325712	397210	672412	857530
Reading Proficiency in English	7	8	5	7	8
Writing Proficiency in English	7	8	4	7	7
Speaking Proficiency in English	10	NR	10	10	9
Listening Proficiency in English	10	NR	10	9	9
Reading Proficiency in Spanish	5	7	8	7	4
Writing Proficiency in Spanish	3	7	8	7	4
Speaking Proficiency in Spanish	9	NR	10	9	3
Listening Proficiency in Spanish	10	NR	10	9	5

Parents of bilingual children indicated which language their children used to do math, dream, and express emotion. In addition, the parents were asked to indicate the child’s preferential language at home, at school, in social contexts, and their language preference in general. These results are indicated in Table 2 below.

Table 2. Child’s Language Preferences in Various Contexts.

		Number of Children
		Bilingual
		Count
Language Child Usually Does Math	English	2
	Spanish	3
	English & Spanish	0
Language Child Dreams in	English	2
	Spanish	1
Language Child Expresses Anger or Affection	English	3
	Spanish	2
Child's Preferential Language at Home	English	4
	Spanish	1
Child's Preferential Language at School	English	2
	Spanish	2
	English & Spanish	1
Child's Preferential Language for Social Contexts	English	2
	Spanish	1
	English & Spanish	2
Child's Preferential Language in General	English	1
	Spanish	0
	English & Spanish	3

Tasks

The current study utilized the Core Language Composite Score in the *Clinical Evaluation of Language Fundamentals – Fifth Edition* (CELF-5; Wig, Semel, and Secord, 2013) to measure

language ability. It also utilized the Core Language Composite Score in the *Clinical Evaluation of Language Fundamentals – Fourth Edition, Spanish* (CELF-4 Spanish, Semel, Wiig, and Secord, 2006) to determine the bilingual children's language abilities in Spanish.

The current study also used books by Mercer Mayer to elicit narratives. The two types of narratives elicited were narrative retells and unique narratives. The researchers collected data from these samples by using the *Narrative Scoring Scheme*, the *Standard Measures Report*, and also collected data on filled pauses. For the narrative retells, the examiner first told the child a story using a script that accompanied a picture book without words and then had the child retell the same story. In the unique narratives, the child was given a book with pictures, but wordless and create his or her own story using the book. For the English narratives *Frog, Where Are You?* (FWAY) and *Frog on His Own* (FOHO) were used. For the Spanish narratives, the books *Frog Goes to Dinner* (FGTD) and *One Frog Too Many* (OFTM) were used.

Procedure

This study consisted of two separate sessions lasting approximately one hour each. Each session followed the same order of tasks – narrative retell, unique narrative, and concluded with the CELF examination. The student researcher administered all sessions as she is fluent in both languages. In addition, a set script for all directions was used to maintain consistency across administration. Before each session began, the examiner explained the procedure to the child in a way that was easily understood and asked if he or she would like to participate in the study. All children responded positively and wanted to participate in the study.

The first session of the study was in English and the second session was in Spanish. The two sessions were separated by at least one week. Monolingual children completed the first

session in English and bilingual children completed both sessions to test their English and Spanish narrative abilities. Unfortunately, there was one bilingual child that the examiner was unable to test in Spanish because of scheduling conflicts.

The first session in English began with a narrative retell of *Frog, Where Are You?* by Mercer Mayer. This was followed by a unique narrative using the picture book of *Frog on His Own* by Mercer Mayer. The session concluded with the Core Language Composite of the *Clinical Evaluation of Language Fundamentals – Fifth Edition*. The Core Language Composite included the subtests: Sentence Comprehension, Word Structure, Formulated Sentences, and Recalling Sentences.

The second session was in Spanish. The session began with a narrative retell using the book *Frog Goes to Dinner* by Mercer Mayer. Next, each child completed a unique narrative using the book *One Frog Too Many* by Mercer Mayer. Finally, the session ended with the Core Language Composite of the *Clinical Evaluation of Language Fundamentals – Fourth Edition, Spanish*. The Core Language Composite in the CELF-4 Spanish included: Conceptos y Siguiendo Direcciones (Concepts and Following Directions), Estructura de Palabras (Word Structures), Recordando Oraciones (Recalling Sentences), and Formulación de Oraciones (Formulated Sentences).

Post Data Collection

The English and Spanish narratives that the children provided were transcribed by the student researcher using the *Systematic Analysis of Language Transcripts* (SALT) software. After initial transcription, the English narratives were reviewed for accuracy by the lead

researcher, Courtney Karasinski. For the Spanish narratives, the student researcher reviewed each sample three times for interrater reliability.

All CELF-5 and CELF-4 Spanish exams were initially scored by the student researcher. Later, the lead researcher reviewed the CELF-5 exams to ensure accuracy and the student researcher reviewed the CELF-5 Spanish exams at least twice with a week between each review.

Results

The results of the study were analyzed by both the lead researcher and the student researcher. The researchers utilized independent-samples t tests and correlations to analyze the results. The groups were separated into bilingual and monolingual and compared for the first. The researchers also compared the bilingual group of children's English and Spanish narratives and CELF scores.

First Research Question

Is there a difference in storytelling between bilingual English-Spanish speakers and monolingual English speakers?

First, the researchers compared scores from the *Narrative Scoring Scheme* (NSS) of the bilingual and monolingual children. The NSS is an objective measure of the participant's ability to produce a coherent story and it includes various subparts to cover aspects that all narratives have. The subparts include: Introduction, Character Development, Mental State, Referencing, Conflict Resolution, Cohesion, and Conclusion. Independent Sample T Tests were used to compare the scores of monolingual and bilingual children. There were no significant differences between the subparts of the NSS for both the narrative retell and the unique narrative. Next, the

totals from all subparts of the *Narrative Scoring Scheme* were added together for every child in both the narrative retell and unique narrative. Once this was done, Independent Sample T Tests were used and no significant difference existed between the scores of the bilingual and monolingual children on both the narrative retell and unique narrative tasks. This suggests that the content of both group's narratives are descriptive, coherent, and rational.

English Narrative Retell

Next, the researchers looked at scores from the *Standard Measures Reports* of the narrative retell of *Frog, Where Are You?* for the five bilingual and five monolingual children. Independent Sample T Tests were used to compare the scores of the monolingual and bilingual participants.

The results indicated that there was not a significant difference between the scores of the bilingual children and monolingual children for the following: total utterances, analysis set, elapsed time, mean length of utterance in words, percent of intelligible utterances, utterances with mazes, number of maze words, maze words as percent of total words, abandoned utterances, words per minute, within-utterance pauses, between-utterance pause time, number of omitted words, and word-level errors.

However, there was a significant difference in the total completed words between the monolingual and bilingual participants. The statistical significance was .005 with a large effect size of 0.80. In addition, there was also a significant difference in the mean length of utterance in morphemes with a significance of .039 and an effect size of 0.66. The number of different words had a significance of .039 and a large effect size of 0.69. There was also a significance of .009

for the number of total words. The effect size for this measure was 0.77. Lastly, the measure of within-utterance pause times had a significance of .032 and an effect size of 0.68.

On average, monolingual children performed better on total completed words with an average of 428.6 compared to the bilingual group’s average of 298.2. Monolingual children also had a higher average on mean length of utterance in morphemes with an average of 8.934 compared to the bilingual children’s average of 7.8720. In addition, monolingual children had an average of 126.6 for number of different words compared to 99.6 for bilingual children. Monolingual children also performed better on the number of total words with an average of 368.4, while bilingual children had an average of 267. Lastly, monolingual children had a smaller pause time compared to bilingual children. Table 3 below shows group statistics for the total completed words, mean length of utterance in morphemes, number of different words, number of total words, and within-utterance pause time. The next page contains Table 4, which is the Independent Samples T Test taken from measures in the *Standard Measures Reports* from the narrative retell.

Table 3. Group Statistics taken from English Narrative Retell Task.

Group Statistics					
	Child's Languages	N	Mean	Std. Deviation	Std. Error Mean
Total Completed Words in FWAY	Monolingual	5	428.6000	59.26466	26.50396
	Bilingual	5	298.2000	48.11133	21.51604
MLU in Morphemes in FWAY	Monolingual	5	8.9340	.86705	.38776
	Bilingual	5	7.8720	.41734	.18664
Number of Different Words in FWAY	Monolingual	5	126.6000	12.13672	5.42771
	Bilingual	5	99.6000	18.78297	8.40000
Number of Total Words FWAY	Monolingual	5	368.4000	34.64535	15.49387
	Bilingual	5	267.0000	56.94295	25.46566
Within-Utterance Pause Time in FWAY	Monolingual	5	.0140	.01342	.00600
	Bilingual	5	.0920	.06573	.02939

Table 4. Results taken from *Standard Measure Reports* of Narrative Retells in English.

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper	
Total Completed Words in FWAY	Equal variances assumed	.326	.584	3.820	8	.005	130.40000	34.13796	51.67773	209.12227
	Equal variances not assumed			3.820	7.676	.006	130.40000	34.13796	51.09515	209.70485
MLU in Morphemes in FWAY	Equal variances assumed	2.64 1	.143	2.468	8	.039	1.06200	.43034	.06964	2.05436
	Equal variances not assumed			2.468	5.759	.050	1.06200	.43034	-.00177	2.12577
Number of Different Words in FWAY	Equal variances assumed	.371	.559	2.700	8	.027	27.00000	10.00100	3.93765	50.06235
	Equal variances not assumed			2.700	6.844	.031	27.00000	10.00100	3.24191	50.75809
Number of Total Words FWAY	Equal variances assumed	2.34 1	.165	3.402	8	.009	101.40000	29.80872	32.66096	170.13904
	Equal variances not assumed			3.402	6.605	.012	101.40000	29.80872	30.04885	172.75115
Within- Utterance Pause Time in FWAY	Equal variances assumed	3.75 0	.089	- 2.600	8	.032	-.07800	.03000	-.14718	-.00882
	Equal variances not assumed			- 2.600	4.333	.055	-.07800	.03000	-.15883	.00283

English Unique Narrative

The researchers also looked at scores from the *Standard Measures Reports* for the unique narrative task of *Frog on His Own* for the five bilingual and five monolingual children.

Independent Sample T Tests were used to compare the scores of the monolingual and bilingual participants.

The results indicated that there was no significant difference between the scores of the bilingual and monolingual children for the following: within-utterance pauses, within-utterance pause time, total utterances, analysis set, total completed words, elapsed time, mean length of utterance in words, mean length of morphemes, number of different words, number of total words, type token ratio, percent of intelligible utterances, utterances with mazes, number of mazes, number of maze words, maze words as percent of total words, abandoned utterances, words per minute, between-utterance pause time, number of omitted words, word-level errors, utterance-level errors and filled pauses.

There was only one significant difference found in the unique narratives and it was the number of omitted bound morphemes with a significance of .04 and an effect size of 0.66. On average, monolingual children had a higher proportion of omitted bound morphemes than bilingual children. Below is Table 5 with significant statistics and the next page is Table 6, which is the Independent Samples T Test taken from measures in the narrative retell.

Table 5: Significant Group Statistics taken from English Unique Narrative Task.

Group Statistics					
	Child's Languages	N	Mean	Std. Deviation	Std. Error Mean
Number of Omitted Bound	Monolingual	5	.6000	.54772	.24495
Morphemes in FOHO	Bilingual	5	.0000	.00000	.00000

Table 6: Results taken from Standard Measure Reports of Unique Narratives in English.

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Number of Omitted Bound Morphemes in FOHO	Equal variances assumed	96.000	.000	2.449	8	.040	.60000	.24495	.03515	1.16485
	Equal variances not assumed			2.449	4.000	.070	.60000	.24495	-.08009	1.28009
MLU in Morphemes in FOHO	Equal variances assumed	1.540	.250	.058	8	.955	.02600	.45031	-1.01241	1.06441
	Equal variances not assumed			.058	5.350	.956	.02600	.45031	-1.10916	1.16116
Number of Different Words in FOHO	Equal variances assumed	1.680	.231	1.700	8	.128	19.00000	11.17945	-6.77985	44.77985
	Equal variances not assumed			1.700	6.522	.136	19.00000	11.17945	-7.83321	45.83321
Number of Total Words FOHO	Equal variances assumed	.001	.979	.288	8	.780	13.20000	45.78908	-92.38981	118.78981
	Equal variances not assumed			.288	7.992	.780	13.20000	45.78908	-92.40867	118.80867
Within-Utterance Pause Time in FOHO	Equal variances assumed	17.264	.003	-1.166	8	.277	-.04600	.03945	-.13696	.04496
	Equal variances not assumed			-1.166	4.942	.297	-.04600	.03945	-.14776	.05576

Conclusion

The bilingual children scored significantly lower compared to monolingual children on many measures of the story retell task. However, the only significant difference for the unique narrative task was number of omitted bound morphemes and the bilingual children had less omitted bound morphemes than the monolingual children. These results suggest that unique narratives are more adequate and provide better results than using narrative retells for bilingual children. This may be because unique narratives allow for the children to think creatively and freely, while the narrative retells have many limitations.

Second Research Question

Are there any differences between Spanish and English storytelling in bilingual speakers?

The researchers used paired Samples Correlations and Paired Sample Tests to compare Spanish and English storytelling in both narrative retells and unique narratives in bilingual speakers. Specifically, they compared the *Narrative Scoring Scheme* scores and measures taken from the *Standard Measure Report* to determine any differences between Spanish and English storytelling.

English and Spanish Narrative Retells

First, the researchers compared the *Narrative Scoring Scheme* of narrative retells of *Frog, Where Are You?* (English) and *Frog Goes to Dinner* (Spanish) of bilingual participants. There were no significant correlations in any of the individual subparts of the NSS for the narrative

retells. However, there was a significance of .036 for the total NSS. On the next page is Table 7, which shows the Paired Samples Correlations of the NSS.

Table 7. Paired Samples Correlations of NSS Narrative Retells

		Paired Samples Correlations		
		N	Correlation	Sig.
Pair 1	NSS: Introduction in FWAY & NSS: Introduction in FGTD	4	-.707	.293
Pair 2	NSS: Character Development in FWAY & NSS: Character Development in FGTD	4	.905	.095
Pair 3	NSS: Mental States in FWAY & NSS: Mental States in FGTD	4	.870	.130
Pair 4	NSS: Referencing in FWAY & NSS: Referencing in FGTD	4	.500	.500
Pair 5	NSS: Conflict Resolution in FWAY & NSS: Conflict Resolution in FGTD	4	.707	.293
Pair 6	NSS: Cohesion in FWAY & NSS: Cohesion in FGTD	4	.870	.130
Pair 7	NSS: Conclusion in FWAY & NSS: Conclusion in FGTD	4	-.707	.293
Pair 8	TotalNSSFWAY & NSSTotalFGTD	4	.964	.036

Next, the researchers compared the measures from the *Standard Measures Report* using Paired Samples Test. They found that the following were not significantly different between English and Spanish narrative retells: total utterances, analysis set, mean length of utterance in words, percent of intelligible utterances, utterances with mazes, number of maze words, abandoned utterances, within-utterance pauses, between-utterance pause time, number of omitted words, and word-level errors.

In addition, the Paired Samples Test also showed many significant differences. There was a significant difference of .037 of the elapsed time with a greater elapsed time in Spanish

than in English. In addition, there was a significant of .016 between the number of different words of the bilingual children’s English and Spanish narrative retells. On average, the children produced a greater number of different words in English. A significant difference of .042 was found for the maze words as a percent of total words with less maze words as percent of total words in English compared to Spanish. There was also a significant difference of .004 for the measure of words per minute with the children having a higher measure of words per minute in English.

The Paired Samples Test indicated significant differences between English and Spanish retells for elapsed time, number of different words, maze words as percent of total words, and words per minute. Table 8 below shows the statistics for each measure that were significant during the Paired Samples Test and Table 9 displays the Paired Samples Test

Table 8. Paired Samples Statistics of Spanish and English Narrative Retells in bilingual children.

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean	
Pair 1	Elapsed Time in FWAY retell	3.6275	4	.72472	.36236
	Elapsed Time in FGTD retell	5.6750	4	1.28638	.64319
Pair 2	Number of Different Words in FWAY	105.7500	4	14.77329	7.38664
	Number of Different Words in FGTD	88.2500	4	16.02862	8.01431
Pair 3	Maze Words as Percent of Total Words in FWAY	7.0000	4	4.76095	2.38048
	Maze Words as Percent of Total Words in FGTD	17.5000	4	8.73689	4.36845
Pair 4	Words per Minute in FWAY	89.6925	4	16.53051	8.26525
	Words per Minute in FGTD	62.9000	4	23.04373	11.52186

Table 9. Paired Samples Test of Spanish and English Narrative Retells in bilingual children.

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Elapsed Time in FWAY retell - Elapsed Time in FGTD retell	-2.04750	1.14258	.57129	-3.86560	-.22940	-3.584	3	.037
Pair 2 Number of Different Words in FWAY - Number of Different Words in FGTD	17.50000	7.14143	3.57071	6.13639	28.86361	4.901	3	.016
Pair 3 Maze Words as Percent of Total Words in FWAY - Maze Words as Percent of Total Words in FGTD	-10.50000	6.13732	3.06866	-20.26584	-.73416	-3.422	3	.042
Pair 4 Words per Minute in FWAY - Words per Minute in FGTD	26.79250	6.78210	3.39105	16.00066	37.58434	7.901	3	.004

English and Spanish Unique Narratives

The researchers compared the *Narrative Scoring Scheme* of the unique narrative of *Frog on His Own* (English) and *One Frog Too Many* (Spanish) of bilingual participants using Paired Samples Correlations. There were no significant correlations in any of the individual subparts and no significant correlation between the total of all subtests. The results of the Paired Samples Test are shown in Table 10.

Table 10. Paired Samples Correlations Comparing Unique Narratives of Bilingual Speakers

		N	Correlation	Sig.
Pair 1	NSS: Introduction in FOHO & NSS: Introduction in OFTM	4	.	.
Pair 2	NSS: Character Development in FOHO & NSS: Character Development in OFTM	4	.000	1.000
Pair 3	NSS: Mental States in FOHO & NSS: Mental States in OFTM	4	-.522	.478
Pair 4	NSS: Referencing in FOHO & NSS: Referencing in OFTM	4	-.707	.293
Pair 5	NSS: Conflict Resolution in FOHO & NSS: Conflict Resolution in OFTM	4	.	.
Pair 6	NSS: Cohesion in FOHO & NSS: Cohesion in OFTM	4	-.522	.478
Pair 7	NSS: Conclusion in FOHO & NSS: Conclusion in OFTM	4	.000	1.000
Pair 8	TotalNSSFOHO & NSSTotalOFTM	4	-.153	.847

Next, the researchers compared measures from both the *Standard Measures Reports* of the English and Spanish unique narratives. To compare the two, Paired Samples Tests were utilized. The results indicated that the number of different words had a significance of .044, the number of total words had a significance of .028, and words per minute had a significance of .028. This suggests that the number of different words, number of total words, and words per minute between Spanish and English unique narratives were significantly different.

On average, children had a larger number of different words, number of total words, and more words per minute in English compared to Spanish. Table 11 displayed the paired samples statistics comparing the unique narratives of bilingual children in English and in Spanish. Table 12 displays the Paired Samples Test comparing the unique narratives of bilingual children in English and Spanish.

Table 11. Paired Samples Statistics of Unique Narratives in Bilingual Children.
Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Number of Different Words in FOHO	4	5.56776	2.78388
	Number of Different Words in OFTM	4	19.36492	9.68246
Pair 2	Number of Total Words FOHO	4	31.79623	15.89811
	Number of Total Words OFTM	4	51.65511	25.82755
Pair 3	Words per Minute in FOHO	4	13.16335	6.58167
	Words per Minute in OFTM	4	21.97040	10.98520

Table 12. Paired Samples Test of Spanish and English Unique Narrative in bilingual children.

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	Number of Different Words in FOHO - Number of Different Words in OFTM	30.00000	17.83255	8.91628	1.62443	58.37557	3.365	3	.044
Pair 2	Number of Total Words FOHO - Number of Total Words OFTM	125.75000	62.59060	31.29530	26.15439	225.34561	4.018	3	.028
Pair 3	Words per Minute in FOHO - Words per Minute in OFTM	28.76000	14.34837	7.17419	5.92854	51.59146	4.009	3	.028

Conclusion

There were no significant correlations between English and Spanish narrative retells in any of the individual subparts of the NSS, but the total of the NSS subparts was found to be a significant correlation. For the NSS in the unique narratives, there were no significant correlations in any of the individual subparts and no significant correlation between the total of all subtests.

In all, many significant differences were found between Spanish and English narrative retells in bilingual speakers. These include significant differences in elapsed time, number of different words, maze words as percent of total words, and words per minute. The Paired Samples test was utilized to determine the differences between English and Spanish unique

narrative in bilingual children. It was found that the number of different words, number of total words, and words per minute between the Spanish and English unique narratives were significantly different. Therefore, the results suggest that there are differences between English and Spanish narratives in bilingual children.

Third Research Question

Is there a relationship between language ability used in storytelling and language ability used on a structured measure of language ability?

Bilingual and monolingual participants were compared separately for this section in order to obtain group results to compare and contrast.

Bilingual

The researchers compared the *Narrative Scoring Scheme* taken from bilingual children's English narratives to the CELF-5 (English) Standard Scores. The NSS scores were taken from the narrative retell of *Frog, Where Are You?* and the unique narrative of *Frog on His Own* (English unique narrative). To compare these measures, Paired Samples Correlations were utilized.

The results indicated that there were strong correlations between the total NSS for the English narrative retell and the CELF-5 Standard Score. However, there was not a significant correlation between the CELF-5 Standard Score and the total NSS for the English unique narrative. These results suggest that the narrative retell provides a correlation between storytelling and language ability in English for bilingual children.

The researchers also compared the CELF-4 Spanish Standard Score to the total *Narrative Scoring Scheme* taken from the bilingual children’s Spanish narratives. The total NSS scores were taken from the narrative retell *Frog Goes to Dinner* and the unique narrative *One Frog Too Many*.

To make these comparisons, Paired Samples Correlations were utilized. The Paired Samples Correlations indicated that there was a significant correlation between the CELF-5 and the Narrative retell of *Frog, Where Are You?* Results also indicated that there was not a significant correlation between the CELF-4 Spanish and both of the narratives. This suggests that Spanish language ability and storytelling are not correlated for bilingual speakers. Table 13 below reports the findings of these correlation.

Table 13. Paired Samples Correlations of NSS and CELF Results for Bilingual Children.

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 CELF Standard Score English & TotalNSSFWAY	5	.882	.048
Pair 2 CELF Standard Score English & TotalNSSFOHO	5	.357	.556
Pair 3 CELF Standard Score Spanish & NSSTotalFGTD	4	.809	.191
Pair 4 CELF Standard Score Spanish & NSSTotalOFTM	4	.168	.832

Monolingual

The researchers also compared the monolingual children’s total NSS scores for the narrative retell and the unique narrative to the CELF-5 Standard Scores to determine if there was a correlation between storytelling and language ability. Paired Samples Correlations were utilized to determine correlation. The results of the study indicate that there was not a correlation between NSS of narrative retell and CELF-5 Standard Scores. In addition, there was not a correlation between NSS of unique narrative and CELF-5 Standard Scores. This indicates that there was not a correlation found between language ability and storytelling for monolingual children. Table 14 on the next page shows the results of the Paired Samples Test comparing NSS totals to the CELF-5.

Table 14. Paired Samples Correlations of NSS and CELF Results for Bilingual Children.

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 CELF Standard Score English & TotalNSSFWAY	5	-.723	.167
Pair 2 CELF Standard Score English & TotalNSSFOHO	5	.256	.678

Conclusion

Generally, it was not found that there were strong correlations between language ability and storytelling. However, there was a correlation between English narrative retells and the CELF-5, which indicates a correlation between language ability and storytelling.

Discussion

This study has potential implications for future practice. However, a few changes could be used to gain more precise and reliable results. For example, one change for this study could be to use a larger sample. One could argue that a sample size of 10 children with five bilingual English-Spanish speakers is not representative of the entire population of bilingual English-Spanish speakers because there are many dialects and different ranges of proficiency in English and Spanish. In addition, the CELF-5 English and CELF-4 Spanish were used for this exam, which may have had results that were difficult to compare as the CELF-5 had different subtests for the core language score. However, this study provides a foundation for further studies.

Clinical Implications

This study will contribute to generalized knowledge of narrative discourse in bilingual children. This information will be useful in determining how to use narratives as an assessment tool for language ability. This study suggests that using the unique narrative instead of the narrative retell may provide a more wholesome view of the child's language ability. In addition, results from this study indicate that there are differences between a bilingual child's Spanish and English narratives, which suggests that it is important to test in both languages. In all, this information will be able to be utilized by many professionals who work with children who are bilingual.

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