

Measuring Fluency Development in Content-Based Storytelling Elementary Spanish Instruction

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Abstract

Elementary students taught with Content-Based Storytelling showed significant gains in fluency in L2 Spanish, as measured by word count from timed writings.

Introduction

Elementary foreign language classes often fail to develop fluency and meaningful communicative skills in their students when the time allotted to language classes is minimal (Curtain & Dahlberg, 2010). Children's language skills grow quickly when they are immersed in the target language environment all day every day, but in a classroom, which could be described as a minimal input situation, children are slow to acquire fluency (Krashen, Scarcella, & Long, 1982). Given the limitations of classroom language learning, can elementary school children develop writing fluency in the target language?

This study was conducted by the first author, a Spanish teacher in the elementary grades of Wayzata Public Schools, a suburb of Minneapolis, Minnesota, in the United States. All students in this school district have Spanish instruction as part of their regular schedule during the fourth and fifth grades. They have class for 60 minutes once every five school days. This totals 35 hours of instruction per year.

The Content-Based Storytelling (CBS) curriculum used in the elementary program is centered on stories, which are either authentic stories from the target cultures (e.g. legends, folktales, etc.), or informational texts about people, places or events in the Spanish-speaking world (Kittok, 2005; 2014). Content-Based Storytelling combines Content and Language Integrated Learning (CLIL) and storytelling. CLIL is an increasingly popular combined language acquisition and content learning approach, developed in Europe in the 1990's (Coyle, Hood & Marsh, 2010). History, geography and biography lessons taught in the target language supplement the stories and build students' global knowledge. The fictional stories, nonfiction stories and informational texts are adapted to the students' language comprehension level. This way, students are progressively building knowledge of the target culture(s) as they develop linguistic proficiency. Later, when they have more advanced language proficiency, they will also have a considerable amount of background knowledge that will help them understand more complex authentic texts and discourse on cultural topics (Anderson & Pearson, 1984).

Content-Based Storytelling also draws from instructional strategies used in other comprehensible input methods. Total Physical Response (TPR; Asher, 2009) is frequently used to introduce vocabulary items, phrases, and sentences in command form. The primary interactive questioning technique is based on the "teacher talk" strategy (Krashen & Terrell, 1983) and the Question Ladder of leveled questions (Segal Cook, 1996). In addition, CBS draws on strategies from Teaching Proficiency through Reading and Storytelling (TPRS; Ray & Seely, 2012): freewriting, comprehension checks using English, acting out a story using student actors, oral retelling of the story based on pictures; and rewriting the story.

The classroom teacher (the first author) wrote each unit using the principles and strategies of Content-Based Storytelling (Kittok, 2005; 2014). Units used in this study were:

- 1) La bandera de México (the story of the indigenous symbols used on the flag),
- 2) El secreto de la llama (The Llama's Secret, a Peruvian legend),
- 3) La leyenda de yerba mate (The Yerba Mate Legend, an Argentinian legend),
- 4) El espíritu de Tío Fernando (The Spirit of Uncle Fernando, a Mexican Day of the Dead story),
- 5) La ratona que ladra (The Barking Mouse, a Cuban folktale),
- 6) Dorothy y Toto (Dorothy and Toto, a story based on the Wizard of Oz from the United States), and
- 7) Elián González (true story of a Cuban boy caught in an international custody battle between Cuba and the United States).

All 137 students of a fourth grade class participated in this study. These same students were followed through their fifth-grade year. Most students had had no prior language instruction. There were 20 students who had had private Spanish instruction since first grade. These students are mixed throughout all the class sections, not taught as a separate group.

Research Question

Given the minimal amount of instructional time typical in most elementary language programs, can fourth and fifth grade students receiving Content-Based Storytelling Instruction in Spanish develop writing fluency in the target language?

Procedure

Seven sets of writing samples were collected from the same students over the two academic years between October 2011 and March 2013: three in fourth grade, and four in fifth grade. The writing samples were timed writings. Students were directed to retell stories that had been taught in class. They were given exactly ten minutes to write as much as they could. This technique of measuring progress in writing fluency over time by comparing ten-minute freewrites is commonly used in TPRS (Ray & Seely, 2012). Spelling and grammatical accuracy were intentionally not graded during this activity. This encouraged students to focus on fluidity and meaning rather than focusing on form, freeing them to perform at their peak fluency.

Students were asked to write complete sentences and include as much detail as they could recall in the time given. They were not required to retell the whole story. Pictures of the story sequence were provided as memory prompts, and students were allowed to use

Spanish/English vocabulary lists as a reference if needed. If students did not know a Spanish word needed to complete a sentence, they were allowed to write an English word and then continue their thoughts, but English words were not included in the total word count.

The students were directed to put sentences together in their own way. No two writing samples are alike when this open-ended format is used. The stories are not memorized, because in class they are presented in multiple oral versions and one written version. Each written story retell is the culminating summative assessment of a unit; however, the writing is not graded. Students are motivated to see what they can do and how much they can improve their own performance from one story retell to the next. Writing samples were kept in student portfolio files. Students were asked to look at their collection of work and reflect on the process.

For each writing sample, the total Spanish word count was recorded for each student, and then an average was calculated for the whole group. The increase in word counts over time shows the learners' fluency development. Fluent writers access a greater number of words and structures more efficiently and with less effort, indicating that their knowledge of the second language has become proceduralized (Chenoweth & Hayes, 2001), or in other words acquired.

Results

Figure 1 shows the increase in the average number of Spanish words students wrote in ten minutes over the course of the two years. The students improved from 74 words in ten minutes on their first writing sample in fourth grade, to a high of 130 words in ten minutes on their second-to-last writing sample in fifth grade, ending with 99 words on their final writing sample.

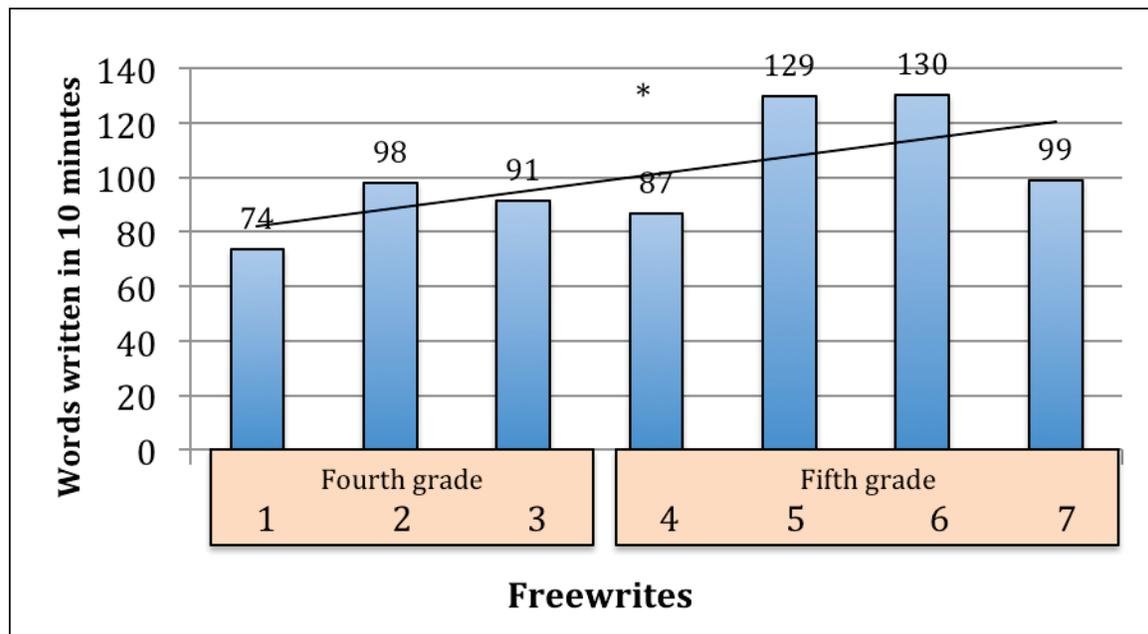


Figure 1: Increase in writing fluency over time

A repeated-measures ANOVA shows that the students improved in their writing fluency significantly over time, $F(6,330) = 68.580$, $p < .01$. This is a very large effect size, $\eta_p^2 = .555$. Within-subjects contrasts showed that their writing fluency was significantly higher when measured between the first sample and any other sample, even after a summer of not having Spanish class, $F(1,55) = 26-342$, all $p < .01$.

The maximum word count reached by a student with no other Spanish instruction was 196 words in ten minutes, by a fifth grade student on sample 6.

The final sample, sample 7, has a lower word count than samples 5 or 6. Less time was spent on presenting the story orally while students acted it out during this unit. The lower word count is likely due to this change from the common instructional process. Nevertheless, the word count for this sample is significantly higher than the initial writing sample.

The results show that elementary students can develop a measure of written fluency in the target language and that their fluency can improve, even in a program with minimal instructional time.

Apart from the quantitative data, study of the student writing provides many insights on the learners' developing language skills. Elementary students in a program with minimal instructional time:

- can communicate the main story elements and many details.
- recall memorized phrases and can recombine language chunks to create original sentences.
- can write short, simple statements, such as *El condor vuela* ‘The condor flies,’ *El zorro corre rápido* ‘The fox runs fast,’ or *La familia come el pollo frito* ‘The family eats the fried chicken.’
- show initial acquisition of Spanish syntax, even in places where Spanish differs from English: *La llama no come* ‘The llama doesn’t eat;’ *Es un problema grande* ‘It’s a big problem.’”
- make predictable errors such as omitting the verb: *El papá furioso* ‘The dad ___ angry,’ or direct meaning instead of idiomatic expression, as in *Elián es seis* ‘Elián (literally) is six’ instead of the correct idiomatic usage, *Elián tiene seis años*, which means ‘Elián is six years old’ (literally, “Elián has six years”).
- improve grammatical accuracy over time even without direct grammar instruction—for example, a student used the English apostrophe + s construction in one story (mamá’s casa), and a month later used the correct Spanish *de* construction (la casa de mamá).

In their reflections for their writing portfolio files, students reported that they felt they had not only learned a lot of Spanish, they also learned a lot about Spanish-speaking cultures. They commented that they felt smart, learned more than they thought they could and that they enjoyed learning Spanish.

Discussion

Writing fluency is a tangible, quantifiable way to document progress in world language learning. Word count from timed writings shows objectively how much language has been acquired and how quickly a learner can access that language to write sentences that retell a story.

Students in the present study wrote between 7 and 13 words per minute in L2 Spanish on a series of timed writing samples. Even though no comparison group was used, existing data suggest that this level of writing fluency is remarkable, given the minimal amount of Spanish instruction these students had received. In another study, college students in their third or fifth semester of language study wrote about 11 words per minute in their second language, and 17 words per minute in their native language (albeit with a different writing task; Chenoweth & Hayes, 2001). The students in the present study performed, in L2 Spanish, close to grade-level expectations for writing in first language English in the same grade levels (Mirkin et al., 1981).

The gains in written language fluency in the present study are attributed to the instructional approach, Content-Based Storytelling. This method— characterized by teaching whole language, using 100% comprehensible input, maintaining a lowered affective filter, focusing on fluency rather than encouraging monitoring for accuracy, creating high levels of student engagement, scaffolding activities to maximize student success, and using content that is interesting and relevant to students— contributes to students' ability to acquire language, process it, and use it to retell a story in a timed writing situation (Kittok, 2005; 2014; Krashen & Terrell, 1983.) For educators looking to develop students' fluency and cultural content knowledge at the same time, Content-Based Storytelling is a promising approach.

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Appendix: Samples of student writing

Sample 1: La bandera de México (66 words)

La bandera de México tiene tres partes. La colores de la bandera de México are verde, blanco, y rojo. Azul, Amarillo, negro, y café aren't en la bandera de México. Hay dos animales. Un águila y serpiente. No hay un tucan, pájaro carpintero, o un papagays. Un mediano águila. No grande o pequeño. La águila café. La águila es café. No verde, blanco, rojo, azul, amarillo, o negro.

Sample 7: Elián Gonzalez (112 words)

Elian tiene la mama y la papa. La mama llamaba Elizabeth. La papa llamaba Juan. La mama y la papa esta divorciados. La mama tiene el novio. La novio llamaba Rafa. Elian nacio Cuba. Elian y su familia fue Florida en el barco. Habia dose adultes y uno chico. Elian esta el unico niño. Despues, hay un problema. Hay la tormenta tropical. La problema es grande. Su mama ató Elian en el neumatíco. Su mama se murió. Elian estaba triste. Elian estaba hambre. Despues, el pescador encontró Elian y el neumaticó. Elian estaba frio. Elian fue la hospital. Elian fue la casa de tio abuelo. Elian estaba contento. Hay un problema grande.