

Lee Con Ángel: Fostering Spanish Literacy in Bilingual Students

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According to a 2015 report by the Instituto Cervantes (eldiae.es/wp, n.d.), the United States is the second-largest Spanish-speaking country after Mexico, with 41 million native Spanish speakers and 11.6 bilinguals. As the number of Spanish-speaking students in US schools continues to rise, it is imperative that schools implement programs to successfully foster Spanish literacy.

Lee Con Ángel

Backed by research on the cognitive benefits of bilingualism (Bialystok, 2010; Bialystok & Feng, 2009; Bialystok & Viswanathan, 2009; Kovács & Mehler, 2009 a, b); the impact of students' proficiency/literacy in their native languages on the acquisition of additional languages (Cummins, 1996; Krashen, 1996); as well as what the research duo of Collier and Thomas (2004) deem "The outstanding effectiveness of dual language education for all" (p. 1), two former bilingual teachers have answered the call and created an online Spanish reading program for students in Pre-Kindergarten through Second Grade.



Lee Con Ángel is an online Spanish reading program created by Kishmorr Productions, LLC, a company founded by retired bilingual teachers Bette Kish and Lori Morris. They have over 40 years of combined experience with Bilingual, Special

Education and Dual Language students in the Elementary level. Lori taught Spanish in High Schools for eight years, but finished her career with elementary-aged children to help them develop literacy skills in Spanish.

Building on their classroom experience, Kish and Morris were also influenced by Fountas and Pinnell's system of leveled texts as well as the Texas State Spanish Language Arts and Reading Standards. As they created Lee Con Ángel, Kish and Morris realized the impact and the increased level of during computer time, and developed a program that is user friendly and provides activities as well as assessments and resources for teachers and parents.

Bette Kish had the idea of creating an online Spanish Reading Program when there weren't any suitable computer resources for her Bilingual Special Education Students. Using a childhood original song as the inspiration for the parade song, Lee con Ángel began. Lori Morris was a colleague and Bilingual Teacher for primary and secondary students. The two began collaborating on games, songs and writing the 22 original stories in Spanish in 2010. The duo took ideas from written description, converted the tunes to sheet music, got two copyrights, and took the power point 'story boards' to a web developer. The program's original title was: Ángel, Mi Ayudante de Lectura and was released in 2013 but was shortened to Lee con Ángel in 2015. Now, the complete program is in two formats with the same content.

Both teachers collaborated on the games and stories making sure the skills were 'scaffolded' to meet the needs of all students. For example, the first story has only the vowel A and consonants that form open syllables, then the second story has A and E, and so forth, adding one vowel at a time per story so that students can learn to develop fluency and comprehension independently. The focus is on giving students the choice to practice skills that teachers introduce or chance to review and develop the skills necessary but also have the option of following a suggested path of structured learning. This is done with the blinking icons that guide students through the activities, games and songs that are based on a sequential path using cumulative skills from basic phonemic awareness to higher-level reading of texts up to a second grade level. While the path of blinking icons is recommended, students are not locked into any one activity. This is a unique feature of Lee con Ángel.

The Setting/Participants

In January of 2015, Kish and Morris conducted a four month pilot test of *Lee con Ángel* in two elementary schools in a school district located outside a large city in Texas. The students were in seven dual language classes with a 50/50 model of simultaneous literacy.

Three Pre-Kindergarten and four Kindergarten classes participated in this pilot study, with a total of 132 students. On average, each class had five native English speakers and the rest were native Spanish speakers.

Introductory Classroom Data for pilot of *Lee con Ángel*

January - May, 2015

Class Label	<i>Lee con Ángel</i> Status	School Description	Grade level	No. of Students	English Speakers	% Correct on Pre-Test	% Correct on Post-Test
A-Teacher 1	Used program	Rural Setting	Pre-K-am	22	4	22	56
B-Teacher 1	Control group	Rural Setting	Pre-K-pm	20	2	10	33
C-Teacher 2	Used program	Rural Setting	Kinder	21	5	34	65
D-Teacher 3	Control group	Rural Setting	Kinder	20	5	57	68
E-Teacher 4	Used program	Suburban	Pre -K	15	9	4	26
F-Teacher 5	Used program	Suburban	Kinder	16	3	64	91
G-Teacher 6	Control group	Suburban	Kinder	18	9	47	93

Table 1

All classes were teaching children to learn to read in both English and Spanish.

The partner teachers chose one class to use the program 15 minutes a day for 3-5 times a week.

The pilot study utilized an experimental design, so there were control and experimental groups. Every class was tested, but only half had access to the program (experimental group), while the other half of the students were in the control group and did not have access to Lee con Ángel. One Pre-Kindergarten teacher had a dual language class but did not have a counterpart to act as a control group, so the group’s growth is compared with the other Pre-Kindergarten classes.

Students accessed Lee con Ángel via the internet with Chrome Books in classroom literacy stations. The children were given four tests in January before starting to use the program, and then four more tests at the end. These tests were to evaluate the students’ ability to recognize letters, sounds, read words and show understanding of concepts of print.

Demographics of Two Participating Schools

School 1	School 2
Rural- outskirts of a major city in Texas	Suburban- outskirts of a suburb of a major city in Texas
913 students enrolled – Pre-K – 5 th grade	578 students enrolled – Pre-K – 5 th grade
Economically Disadvantaged 73.2% English Language Learners 35.7% Special Education 6.6%	Economically Disadvantaged 27.0% English Language Learners 18.3% Special Education 5.5%
2 PK/2 Kinder: 83 students	1 PK/2 Kinder: 49 students

Table 2

In January, each student participant was given a Pre-Test, the Letter Identification Test (LID Test). If a student could read, he/she took a timed word test, in which students read as many words as possible in two minutes. All tests were administered by Kish and Morris. The Spanish Pre-Test assessed the following skills: upper/lower case letter identification, vowel/consonant identification and initial letter recognition of common animal names.

Post-Test

In May, the students were given a Post-Test, LID Test, Word Test, and a Concepts of Print Test (Ángel Conceptos de Impresa), all administered in Spanish. The Spanish Post-Test assessed the same as the Pre-Test, and also required that students

identify words that were associated with pictures.

Results of Pilot Test

Pre-Kindergarten

School 1 To begin the discussion of the data gleaned from the pilot test, we first turn to the Pre-Kindergarten (PK) classes. School 1 had two classes represented in the pilot study. Class A (see Table 1) was a morning section of PK and an experimental group that used Lee Con Ángel while Class B was an afternoon section and served as a control group, and the same teacher taught both sections. School 2 only had one PK classroom and this group also used the program.

School 1 was located in a rural setting and students who attended the school were from a lower socioeconomic status (SES) than the students who attended School 2. The data revealed that the students in the experimental group improved 34% on their Post-Test scores after the four months of the study. Individual scores indicated that students identified an average of four out of the 61 letters and sounds on the LID test administered in January and then identified 48 out of 61 on the test given in May. Conversely, students in the control group who did not have access to Lee Con Ángel correctly identified 35 out of 61 sounds after the same four months of instruction.

Pilot Program Overview of Results with Lee con Ángel Online Spanish Reading Program

School /Class	Letter ID January- May Results	Word Test January Results	Pre-Test Results % correct	Word Test May Results	Post Test Results % correct
A- Used Program Teacher 1- am Pre-K- Rural	20/21 students improved	8/21 Students can read	22	15/21 Students can read	56
B- Control Group Teacher 1- pm Pre-K – Rural	15/ 20 students improved	2/20 Students can read	10	4/20 Students can read	33

C- Used program Teacher 2- Kinder- Rural	15/20 students improved	6/20 students can read	34	15/20 students can read	65
D- Control group Teacher 3 – Kinder – Rural	15/ 20 students improved	2/20 students can read	57	4/20 Students can read	68 (8 students made negative progress)
E- Used program Teacher 4- Pre-K – Suburban *	28% of students improved	0/15	4	1% of students can read	26
F-Used program Teacher 5- Kinder – Suburban	97% knew all letters in January	Students read 437 words	64	Students read 800 words	91
G- Control group Teacher 6- Kinder - Suburban	97% knew all letters in January	Students read 412 words	47	Students read 850 words	93

Table 3

*Kishmorr researchers noticed that students were not familiar with the program in the spring which indicated to us that they didn't get to use Lee con Ángel as much as we had expected.

School 2 There was only one Pre-Kindergarten class in School 2, which was located in a more suburban area than School 1, and this class received the Lee Con Ángel program. There were 15 students in the class including 9 native English-speaking students. Individual analysis showed that seven out of 15 children learned more than 15 letters; four students went from not knowing any letters in the Pre-Test to being able to identify more than 30 letters or sounds in the Post-Test. Also, all students in Class E made progress during the study period.

Individual Results in School 1

After careful analysis of individual results, the underlying story with Class A was that all but one student showed significant gains in basic literacy skills. After using Lee Con Ángel, the lowest score on the LID Test was 12; however, everyone improved.

Fourteen students identified more than 50 of the 61 letters, and three students knew 30-50 of the 61 Spanish sounds.

In Class A, there were 22 tested students and 56% of the students passed the Post-Test. Class B, the control group, had three students who improved more than 50% on Post-Test scores as compared to the Pre-Test scores, five who improved more than 20%, and six who improved by a range of 5-19%. There was one student whose score decreased by 15% and one who did not take the Pre-Test. Only 33% of students mastered the Post-Test, 57% could identify Spanish letters, and 38% could tell six basic concepts of print in Spanish.



Table 4

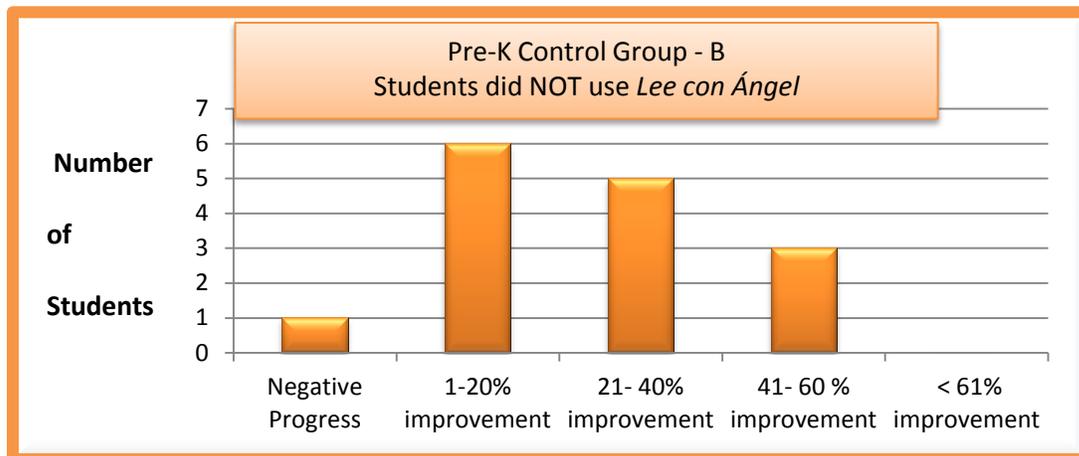


Table 5

Kindergarten

School 1 The Kindergarten children at School 1 had two teachers who team-teach

in the dual language program. One teaches in English while the other teaches only in Spanish. Students rotate back and forth all week to divide their time equally between the two teachers and two languages. The most notable results to report were the four students in the experimental group who improved more than 61% on the Post-Test; their peers in the control group who did not receive access to the online program *Lee con Ángel* did not experience as much success. Students in the experimental group were able to identify more letter sounds than the students in the control group. However, the most interesting finding was related to negative results. Of the students who used the program, only two scored lower on the Post-Test than they did on the Pre-Test; however, the control group had nine who regressed during the same four month period.

School 2 Like School 1, the Kindergarten classes at School 2 also had two teachers. One taught in English, while the other taught all content in Spanish, allowing students to acquire both languages as well as all of the concepts required by state standards. The students at School 2 were more diverse than those at School 1, with a few Asian and African-American students in the study. Other students shared stories of grandparents coming from South America or the Caribbean Islands. Parents articulated the desire for their children to be biliterate, and several of the parents were multilingual.

After the four month study period, both groups of students improved; however, the group that used *Lee Con Ángel* was able to read more words than their peers in the control group. Students in the experimental group (Class F) showed improved Post-Test scores; 79% knew the concepts of print when asked in Spanish, 55% could read words in 2 minutes, and 97% identified the majority of the 61 letters of the Spanish alphabet. Careful analysis between the experimental and control groups revealed that the students who used *Lee Con Ángel* knew 16 more sounds than the students who did not use the program. One of the major differences between the two groups was the number of students who could read words in a timed setting. Individual test scores revealed that seven students in Class F (experimental group) could read 35 or more words in two minutes while only four students in the control group (Class G) could read that many.

It is important to note that these two classes from School 2 had very high performing students and the benefits of *Lee con Ángel* were more apparent in the scores of the students at School 1, who began the program possessing fewer skills. Although all

students benefitted from the online reading program, Lee con Ángel is more effective with students who need remediation or motivation to learn literacy skills.

Teacher Feedback

All the participating teachers reported that students enjoyed using Lee con Ángel. Furthermore, one teacher gave a video testimonial where she described how a non-verbal student gained enough confidence after using Lee con Ángel to begin speaking to her and other students in his native Spanish, while another was able to learn Spanish by using this program online. This is a testament to the value of songs that engage the auditory learner, how interactive games engage the tactile/ kinesthetic learner and visual cues engage the visual learner.

Future Directions

This four month pilot provided a brief window into the potential of Lee Con Ángel in fostering students' Spanish literacy. Since this inaugural pilot study, six more Elementary schools from all over the United States and 14 additional classrooms have adopted Lee Con Ángel. In the future, Kishmorr Productions will conduct longitudinal studies following students' and schools' progress and engage in follow-up visits and interviews with administrators, students, teachers and parents.

We would like to thank the administrators, teachers, principals and children of this school district for cooperating with Kishmorr Productions, LLC and allowing us to come into the classrooms to test students. We know that interruptions to instruction should be kept to a minimum as these are the types of things that vary instruction from class to class and slow down progress. Despite variances in teacher personality, priorities regarding instruction and differences in student abilities, the data from this pilot does confirm overall that students who had access to Lee con Ángel performed better on the Post-Test, recognized more letters, read more words, and identified more concepts of print in Spanish than those who were in the control groups.

For more information visit: www.leeconangel.com

Or email us at: contact@kishmorrproductions.com

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