Journal of Modern Education Review, ISSN 2155-7993, USA
February 2012, Volume 2, No. 2, pp. 77–89

http://www.academicstar.us

Spanish as a Second Language for Elementary Students: A Study of Participation on Literacy Benchmark Scores

Kelli Blackford, Gwen Olmstead, Charles Stegman
(National Office for Research on Measurement and Evaluation Systems, University of Arkansas, USA)

Abstract: Student achievement in literacy and mathematics for students involved in a Spanish language program at a large and diverse school district in Arkansas, were compared to peers' scores who did not participate in the program. The program was implemented to enroll native English speaking students in a Spanish enrichment program (SEP) with the intent of improving their literacy Benchmark scores. The study used t-tests to examine the differences in participants and non-participants and an analysis of variance (ANOVA) to compare the differences in scores based on years of participation in the program. Students participating in the SEP consistently had higher scores on the literacy portion of the state benchmark examination. Review of the results of a Spanish language assessment also supports that students improved in Spanish language content knowledge from fall assessment to spring assessment.

Key words: Spanish language, literacy achievement, language acquisition

1. Introduction

The implementation of No Child Left Behind in 2002 has resulted in the introduction of many new programs in schools across the country in order to ensure students are 100% proficient in mathematics and literacy by 2014. A common concern with the adoption of new programs is determining if the results are worth the expenditures. At a large and diverse school district in Arkansas, a program was implemented to enroll native English speaking students in a Spanish enrichment program (SEP) with the intent of improving their literacy Benchmark scores. The study used t-tests to examine the differences in participants and non-participants and an analysis of variance (ANOVA) to compare the differences in scores based on years of participation in the program.

1.1 Theoretical Framework

In 1968, the United States introduced federal legislation to provide districts federal funds to establish programs for students with limited English speaking ability (Stewner-Manzanares, 1988). Since the inception, Bilingual programs have been place in schools in the United States to help non-English students boost their knowledge and understanding of the English language. Beyond bringing non-native English speakers up to grade level, learning a second language at an early age can benefit any student (http://www.actfl.org). Most importantly,

Kelli Blackford, Ph.D, University of Arkansas, research areas: educational statistics, research methodologies, mathematics. E-mail: kblackfo@uark.edu.
Gwendolyn Torok Olmstead, Ph.D, University of Arkansas, research areas: creativity, literacy, program evaluation. E-mail: golmstea@uark.edu.
Charles Stegman, Ph.D, University of Arkansas, research areas: statistics, experimental design, non-parametric statistics. E-mail: cstegman@uark.edu.

and relating to this research, the American Council of the Teaching of Foreign Languages (ACTFL) states that learning a second language will improve a child's understanding of his/her native language (http://www.actfl.org). A similar study was conducted within the Louisiana schools. Foreign language (FL) instruction was implemented in several areas schools, grades three through five, and were compared with schools not offering FL. Notably, FL students significantly outperformed non-FL peers on all grade 4 assessments (English language arts, mathematics, science, and social studies) as well as Grade 5 Iowa Test of Basic Skills language assessment (Taylor & Lafayette, 2010).

Research indicates that those who learn a second language at a younger age have a higher second language proficiency than those learning a new language later in life (Krashen, Long, & Scarcellea, 1979). When a student learns a new language, they are transferring reading skills across languages. This transfer of knowledge makes continued exposure to the person's first language, as well as the person's age at the time of learning the second language, important (August & Hakuta, 1997; Cuevas, 1997; Roberts, 1994). The belief that elementary years are prime for acquiring a second language and that the skills of learning a second language can improve the first language, the Spanish Enrichment program was implemented and is the basis of this research.

1.2 Spanish Enrichment Program

The SEP is designed to introduce students to a foreign language during the elementary years. Research repeatedly indicates that children in primary grades are more adept to learn a new language than adults and older children. The developers of the program also believe that through the acquisition of a foreign language, reading skills, communication skills, listening skills, and memory skills are strengthened. The curriculum was designed to provide active participation by students so they can develop an awareness of Spanish as a language, attain a conversational vocabulary and develop an understanding of the Hispanic culture and history.

For the fifth year, the SEP was offered in three non-Title 1 schools in a large diverse Arkansas school district. These schools are now known to the district as the Enrichment Model Schools. We shall refer to the schools as School A, School B and School C. The SEP was exclusively offered to interested students as a pull-out model for grades 3-5 and incorporated a pull-out model that involved removing students from their regular classrooms for one or more class periods to receive Spanish instruction. Classes met on average once a week for 40–45 minutes.

For the three Enrichment Model schools, participation is limited to approximately 100 students per school (30–35 per grade). The demand for the program, however, far exceeded this capacity thus participation was selective. The minimum criteria for involvement included parent permission, teacher recommendation, good attendance and student interest. To remain in the program, students had to maintain passing grades in their regular classrooms.

2. Methods

2.1 Participants

A total of 348 students in grades three through five participated in the Spanish Enrichment program for the 2009–2010 school year at School A, School B, and School C. Demographic descriptions of the Spanish participants are provided in tables.

Table 1 shows a higher percentage of males in schools participating in the Spanish program for the SEP schools. The district had a slightly higher male population in 2009–2010 consistent, with the SEP schools and the state.

As can be seen in Table 2, the SEP schools all had a higher percentage of LEP students compared to the state.

The district and School A had a higher percentage of Free/Reduced lunch participants than School B, School C or the state.

Table 3 displays participants by school and grade. To participate in the SEP, students were required to have parent permission, teacher recommendation and good attendance. Selection into the Spanish program was on a voluntary basis.

Table 1 Number and Percentages of Student Gender for Spanish Participant Schools, District and State

	N	Male	Female
School A			
Participant	127	58 (45.7)	69 (54.3)
Non-participant	190	97 (51.1)	93 (48.9)
School B			
Participant	131	60 (45.8)	71 (54.2)
Non-participant	111	65 (58.6)	46 (41.4)
School C			
Participant	83	32 (38.9)	51 (61.2)
Non-participant	189	98 (51.8)	91 (48.2)
District	9,171	4,720 (51.5)	4,451 (48.5)
State	467,061	239, 118	227, 943

Note: Percentages are in ( ). District Demographic data were obtained from Arkansas Department of Education and include students in grades K-5 (http://adedata.arkansas.gov/).

Table 2 Number and Percentages of Student Demographics for Spanish Participant Schools, District and State

	N	LEP	Non-Lep	Free/Reduced Lunch	Paid Lunch
School A					
Participant	127	38 (29.9)	89 (70.1)	71 (55.9)	56 (44.1)
Non-participant	190	75 (39.5)	115 (60.5)	138 (72.6)	52 (37.4)
School B					
Participant	131	12 (9.2)	119 (90.8)	19 (14.5)	112 (85.5)
Non-participant	111	5 (4.5)	106 (95.5)	27 (24.3)	84 (75.7)
School C					
Participant	83	3 (3.6)	80 (96.4)	19 (22.9)	64 (77.1)
Non-participant	189	64 (33.9)	125 (66.1)	107 (56.6)	82 (43.4)
District	9,173	4,383 (47.8)	4,790 (52.2)	6,212 (67.7)	2,961 (32.3)
State	467,061	29,751 (6.4)	437,310 (93.6)	276,206 (59.1)	190,855 (40.8)

Note: Percentages are in ( ). District Demographic data were obtained from Arkansas Department of Education and include students in grades K-5 (http://adedata.arkansas.gov/).

Table 3 Number of Spanish Enrichment Program Participants by School and Grade

School	3rd grade	4th grade	5th grade	Total
School A	57	37	36	130
School B	55	54	29	138
School C	35	27	18	80
Total	147	118	83	348

As can be seen in Table 3, there were more third grade participants at all three schools than fourth or fifth grade student participants. School B had more participants in the Spanish program than did School A or School B.

2.2 Instruments

To measure the effectiveness of the SEP, the researchers analyzed the Arkansas Literacy Benchmark Exams and a Spanish Knowledge Assessment created by the SEP Spanish teacher.

Arkansas Literacy Benchmark Exams. Arkansas has implemented a mandatory state assessment for elementary and middle school students since 1999. The Arkansas Literacy Benchmark Exam (ABE) was redesigned in 2005 to provide a vertically moderated scale for assessing student progress in literacy for third through eighth grade (ADE 2008). In 2008, the Arkansas Benchmark Examination was augmented to provide both criterion-referenced scores (CRT) and norm-referenced (NRT) scores. The CRT component was unchanged for literacy. It focused on measuring student achievement in reading and writing as determined by the Arkansas English Language Arts Curriculum Frameworks. The NRT component for literacy included the subsection of reading comprehension and language from the SAT 10.

The ABE are designed to measure student progress on grade level content standards. Students' scores are classified into four grade level performance classes for each tested subject area. Based on their scaled scores, students are assigned to one of four performance classes: Below Basic, Basic, Proficient or Advanced. Students scoring Below Basic fail to show sufficient mastery of skills in reading and writing to attain the Basic level. Students with a score of Basic show substantial skills in reading and writing, yet only partially demonstrate the abilities to apply these skills. They demonstrate a need for some additional assistance, commitment or study to reach the Proficient level. Proficient students demonstrate solid academic performance for the grade tested and are well prepared for the next level of schooling. Advanced students demonstrate superior performance well beyond proficient grade level performance (ADE, 2008).

Spanish Knowledge Assessment. The SEP instructor, with the assistance researchers from The National Office for Research on Measurement and Evaluation Systems (NORMES), developed a Spanish summative evaluation to assess students' level of Spanish competence. The test has been given in the spring 2006–2010 to third, fourth, and fifth grade participating Spanish students. In the fall of 2009, the test was used to assess the baseline knowledge of students enrolled in Spanish classes. The fall test was given only to first year students. The test assessed students' knowledge of vocabulary, numbers, Latin American holidays, and Spanish reading skills. The Spanish Knowledge Assessment is included in this report as Appendix A and has not been examined for reliability or validity.

3. Results

3.1 Arkansas Benchmark Examination

Mean Benchmark scores and standard deviations for the 2009–2010 school year for literacy at the SEP schools are provided in Table 4 for grades three, four and five.

Third, fourth and fifth grade students that participated in Spanish performed higher, on average, and demonstrated less variability at all three schools than students who did not participated. Differences can be seen in Figures 1, 2 and 3 respectively.

Figure 1 shows the differences between participants and non-participants for each school. Third grade students at schools A, B and C who participated in the SEP had statistically higher literacy Benchmark means

than their peers who did not participate on the Literacy portion of the Arkansas Benchmark Exam (t (55.96) = 2.86; p < .01 (difference = 94.92), t (84.85) = 6.11; p < .01 (difference = 155.69), and t (81) = 2.73; p < .01 (difference = 95.64), respectively). The effect sizes were computed for each difference. The effect sizes ranged from .63 at School B to 1.16 at School C. According to Cohen's guidelines for t tests, these represent medium to large effects.

Table 4 2009–2010 Literacy Benchmark Scores for SEP Third, Fourth and Fifth Grades

	Third		Fourth		Fifth	
School	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
School A						
Participant	63	644.81 (125.61)	32	736.38 (144.88)	31	724.94 (163.06)
Non- Participant	36	549.89 (174.78)	58	653.71 (180.70)	96	648.44 (168.68)
School B						
Participant	54	693.78 (159.58)	49	778.27 (128.48)	28	823.82 (159.40)
Non- Participant	29	598.14 (136.52)	28	654.61 (223.90)	54	797.48 (138.87)
School C						
Participant	36	730.00 (81.69)	28	793.32 (106.51)	19	827.42 (128.66)
Non- Participant	55	574.31 (159.85)	57	688.18 (155.33)	77	706.94 (161.48)

Note: Forty-four students could not be matched to Benchmark Data.

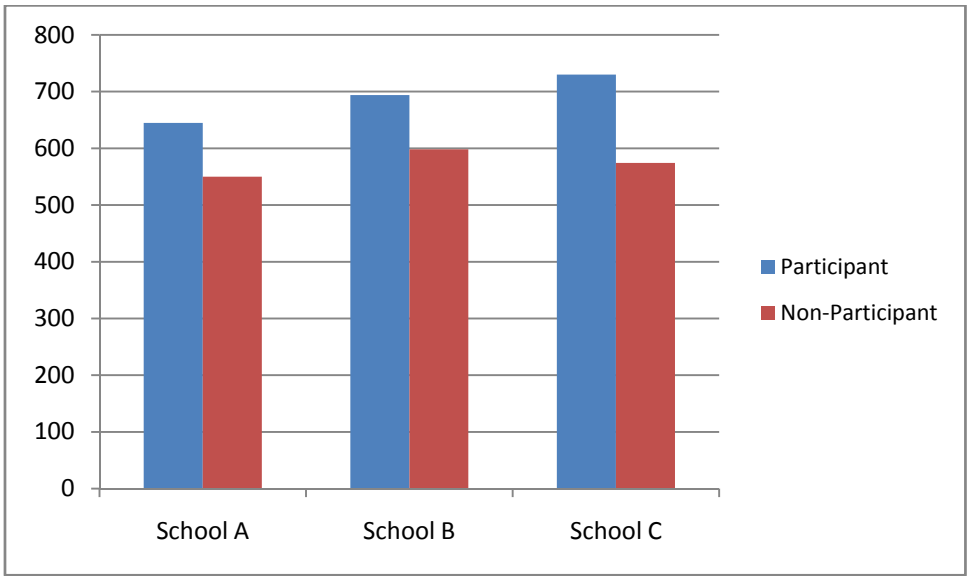

Figure 1 Third Grade Literacy Means by School and Participation

As can be seen in Figure 2, fourth grade students who participated in the SEP at schools A, B, and C had statistically higher means than their peers who did not participate on the Literacy portion of the Arkansas Benchmark Exam (t (88) = 2.22; p =.03 (difference = 82.67), t (73.96) = 3.65; p < .001 (difference = 105.14), and t (37.37) = 2.68; p = .011 (difference = 123.66)). An effect size was calculated for each of the differences. Effect sizes ranged from .73 to .79 indicating a medium to large effect according to Cohen's guidelines for t tests.

As shown in Figure 3, fifth grade students who participated in the SEP at School A (t (125) = 2.21; p < .029 (difference = 76.50)) and School C (t (94) = 3.02; p < .003 (difference = 120.48) had statistically significantly higher means then their peers who did not participate on the Literacy portion of the Arkansas Benchmark Exam.

Fifth grade students at School B (t = (80) = .77; p < .441 (difference = 26.34)) who participated in the SEP did not score significantly higher on the Literacy Benchmark then their peers who did not participate. Effect sizes calculated on the differences according to Cohen's guidelines for t tests yielded School C had a large effect (d = .77), School A had a small to medium effect (d = .46), and School B had a small effect (d = .18).

It was hypothesized that more years in the Spanish program would result in higher performance on the Literacy Benchmark exam. To investigate this, the SEP schools were examined together by grade as the number of first and second year fifth grade students and first year fourth grade students by grade at the schools individually were too small to investigate.

Results were analyzed using an analysis of variance (ANOVA). The analysis revealed significant differences between years of participation for fifth grade (F (71, 2) = 4.12; p = 0.02) but not for fourth grade students (F (1, 105) = 1.49; p = 0.22). The results of these analyses can be found in Appendix B as Tables 5 and 6, respectively. Table 7 reports the means and standard deviations for SEP students by grade and years of participation.

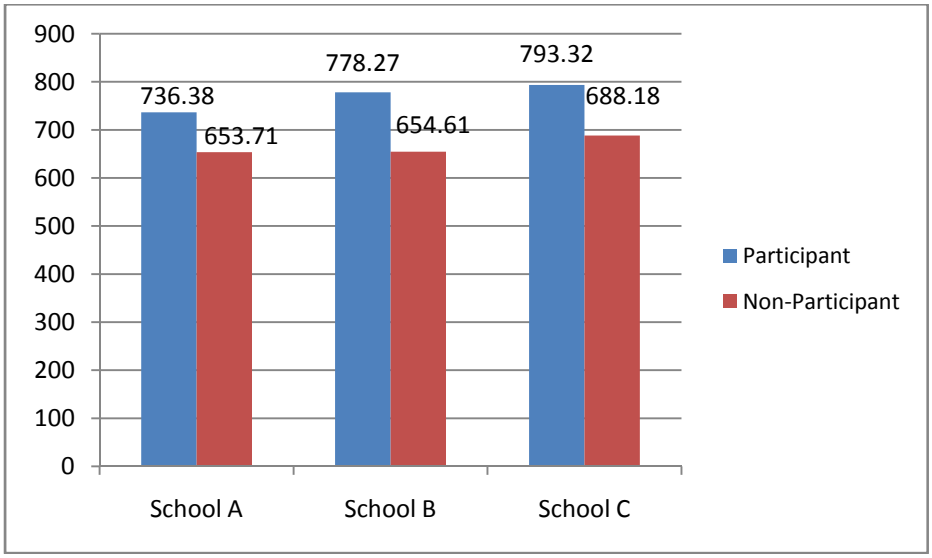

Figure 2 Fourth Grade Literacy Means by School and Participation

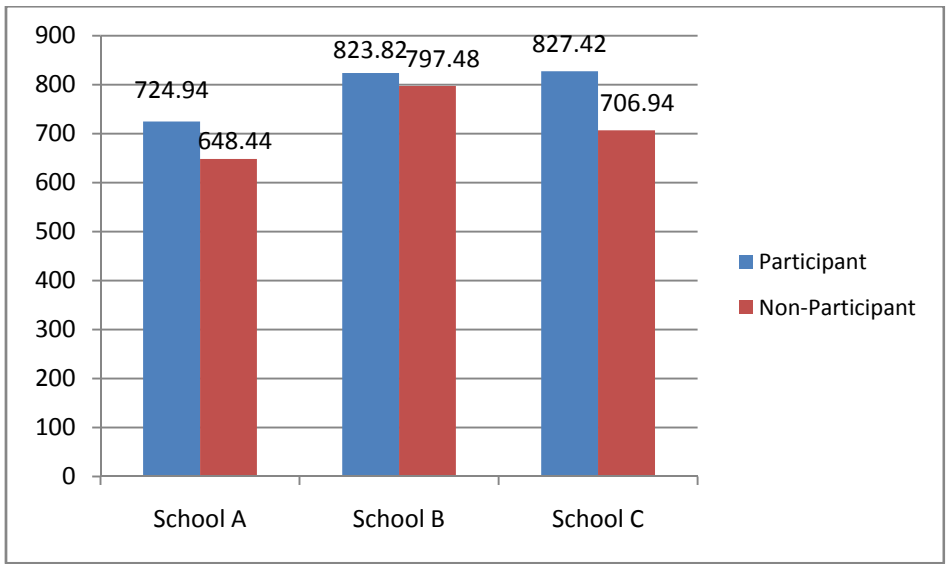

Figure 3 Fifth Grade Literacy Means by School and Participation

Table 7 Means and Standard Deviations for SEP Students by Years of Participation

	One Year		Two Year		Three Year	
	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
Third	136	689.51 (130.25)				
Fourth	22	742.14 (186.47)	85	779.61 (132.33)		
Fifth	5	671.40 (220.60)	10	689.20 (163.60)	59	809.98 (145.44)

Note: Third grade students were only eligible for one year of participation.

3.2 Spanish Knowledge Assessment

The fall and spring test scores of current Spanish participants from the three Enrichment Model schools were combined to look for changes. Only first year Spanish participants took the fall test. Mean Spanish Knowledge Assessment scores and standard deviations students who took both the fall and spring exam, and for all the students who took the spring test are provided in Table 8 by grade and school. The maximum score possible on the test was 79. All grades showed increases between the fall test and spring test.

All first year Spanish students on average showed improvement on the Spanish assessment from the fall test to the spring test. Cumulatively, students in higher grades averaged higher on the Spanish assessment (both pre and post) than students in lower grades.

As of 2009–2010, the Spanish Program has been implemented for four years. Therefore fifth grade students had the opportunity to participate for 3 years, fourth grade students for two years, and this was the first year the Spanish program was open for the third grade students. Some students did not participate in all available years. Table 9 shows the assessment means by grade, school and number of years of participation. As expected, more years of participation in the program on average yielded higher scores on the assessment. Figures 4, 5 and 6 show the means of students by years of participation for schools A, B, and C, respectively.

Table 8 2009–2010 Spanish Assessment Pre- and Post Test Means and Standard Deviations

		Fall 2009	Spring 2010	Total Spring 2010	
School	N	Mean (SD)	Mean (SD)	N	Mean (SD)
School A					
Third Grade	53	12.38 (14.39)	56.23 (11.93)	57	55.81 (11.95)
Fourth Grade	2	36.50 (43.13)	66.00 (9.90)	37	67.86 (7.87)
Fifth Grade	3	37.00 (26.00)	75.33 (6.35)	36	77.06 (7.87)
School B					
Third Grade	52	11.37 (10.23)	58.04 (9.91)	55	58.13 (9.70)
Fourth Grade	11	16.91 (16.88)	66.91 (6.32)	54	65.78 (8.70)
Fifth Grade				29	72.62 (10.28)
School C					
Third Grade	29	9.52 (5.91)	54.17 (8.04)	32	53.81 (8.04)
Fourth Grade	6	18.33 (26.95)	62.5 (10.41)	27	65.96 (7.39)
Fifth Grade				18	73.56 (5.95)

Note: No fifth grade students took both the fall and spring test at Walker or Young. Total refers to all students who completed the test in the spring.

Overall, students with more years of participation in the SEP scored higher than their peers with fewer years of participation. At School B, the first year fourth grade students averaged higher than the second year fourth grade

students and the four second year fifth grade students averaged higher than the third year fifth grade students.

Table 9 Spring Test Means and Standard Deviations by School, Grades and Number of Participation Years

	Third		Fourth		Fifth	
School	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
School A						
First Year Participants	57	55.81 (11.95)	4	67.75 (6.70)	4	76.25 (5.50)
Second Year Participants			33	67.89 (8.09)	3	76.67 (4.04)
Third Year Participants					29	77.21 (3.05)
School B						
First Year Participants	55	58.13 (9.70)	11	66.91 (6.32)	1	66.00 (NA)
Second Year Participants			43	65.49 (9.25)	4	73.00 (8.29)
Third Year Participants					24	72.83 (10.85)
School C						
First Year Participants	32	53.81 (8.04)	8	61.00 (9.53)	0	--
Second Year Participants			19	68.05 (5.29)	4	69.75 (11.21)
Third Year Participants					14	74.64 (3.41)

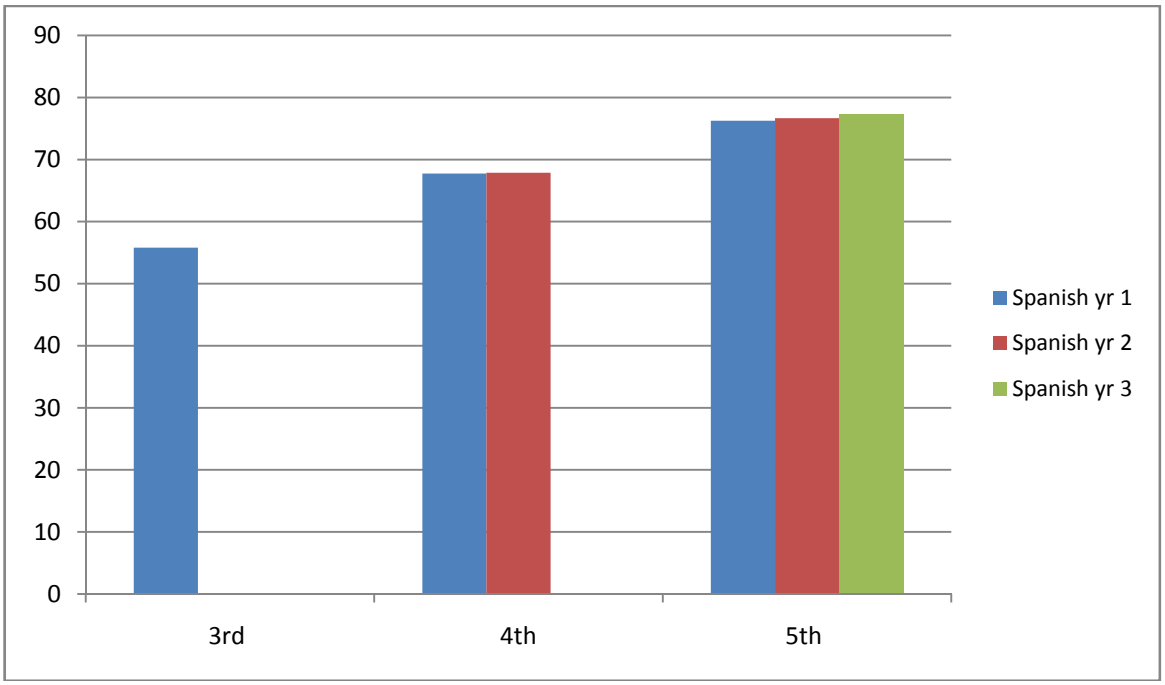

Figure 4 School A Spring Test Means by Number of Years in Spanish and Grade

As shown in Figure 4, fifth grade Spanish students, regardless of year in Spanish, had higher spring test scores than third and fourth grade year one and year two students. The fifth grade students with three years of Spanish (n = 29) had a mean of 77.21. The fourth grade students with two years of Spanish (n = 33) had a mean of 67.88, while the third grade students with one year of Spanish (n = 57) had a mean of 55.81.

As shown in Figure 6, fifth grade students in their third year of participation in the SEP scored higher than third and fourth grade students in their first or second year of participation. The fifth grade students with two years of participation narrowly scored higher than the fifth grade students with three years of participation. Similarly,

the first year fourth grade students scored higher than the fourth grade students with two years of participation. The fifth grade students with three years of Spanish (n = 24) had a mean of 72.83. The fourth grade students with two years of Spanish (n = 43) had a mean of 65.49, while the third grade students with one year of Spanish (n = 55) had a mean of 58.13.

As shown in Figure 5, students with three years of Spanish participation scored higher than students with one or two years of participation. The fifth grade students with three years of Spanish (n = 14) had a mean of 74.64. The fourth grade students with two years of Spanish (n = 19) had a mean of 68.05, while the third grade students with one year of Spanish (n = 32) had a mean of 83.81.

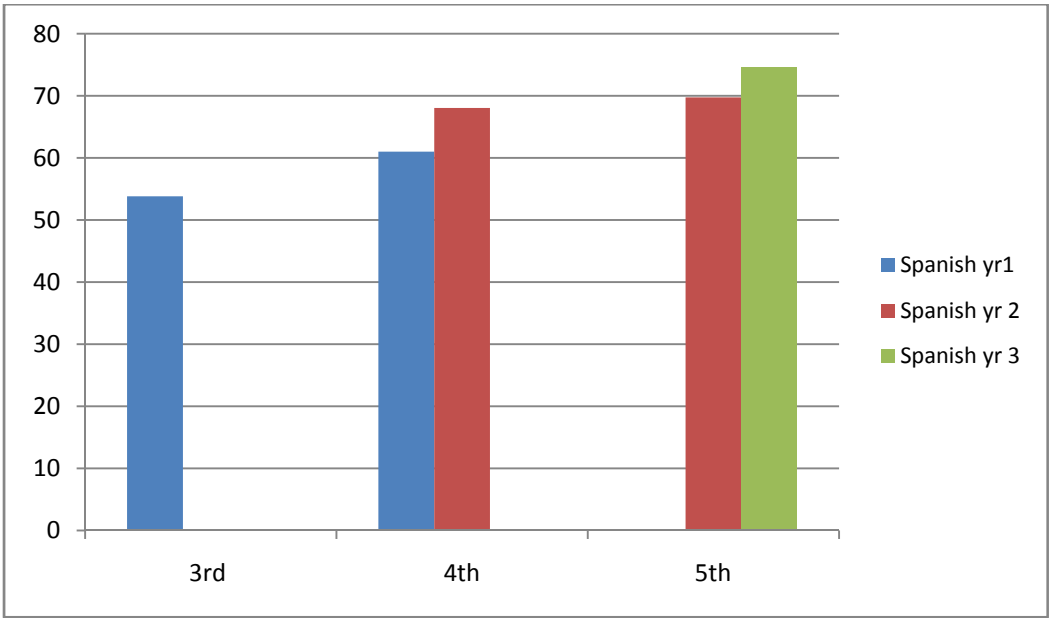

Figure 5 School C Spring Test Means by Number of Years in Spanish and Grade

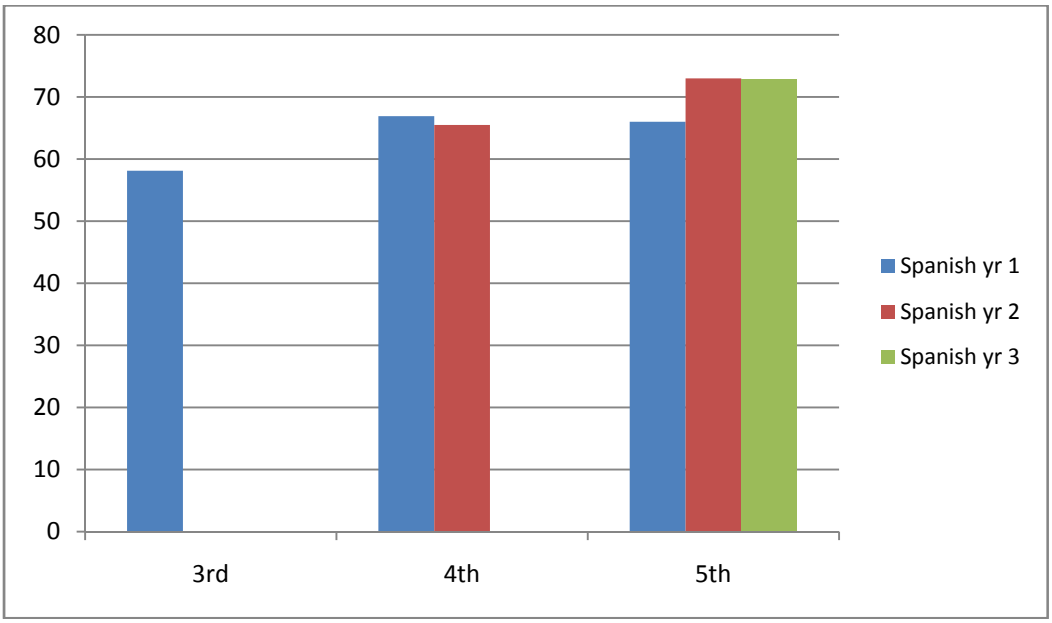

Figure 6 School B Spring Test Means by Number of Years in Spanish and Grade

(Note: there was only one fifth grade student in year 1)

4. Findings

Participation in the Spanish program at the Enrichment model schools was based on parental permission, teacher recommendation, student interest, good attendance and continued student success in other classes. The number of participants was limited at each school.

The locally developed Spanish Knowledge Assessment test was given to first year participants in the Enrichment Model schools in the fall of 2009. Increases in Spanish content knowledge were consistently evidenced. At each school, student scores improved from the fall test to the spring test. Additionally, as anticipated, the students with two years of participation had higher test scores in Spanish knowledge than those who had one year of Spanish participation and students with three years of Spanish performed better on the knowledge assessment than students with two years except for Young where the four fifth graders with two years averaged slightly higher than the 24 fifth graders with three years.

At all three Enrichment Model schools, third, fourth and fifth grade students who participated in Spanish performed better on the Literacy portion of the Benchmark exam than the students at their schools who did not participate. Fourth grade students with two years of participation in the Spanish program performed better on average than students with one year of participation. Fifth grade students with three years of participation performed better than students with one or two years of participation.

References:

August D. and Hakuta K. (Eds.) (1997). *Improving Schooling for Language-Minority Children: A Research Agenda*. Washington, DC: National Academy Press.

Cuevas J. A. (1997). *Educating Limited-English-Proficient Students: A Review of the Research on School Programs and Classroom Practices*. San Francisco, CA: WestEd.

Krashen S., Long M. and Scarcella R. (1979, December). "Age, Rate and Eventual Attainment in Second Language Acquisition", *TESOL Quarterly*, Vol. 13, No. 4, 573–582.

Roberts C. (1994, Spring). "Transferring literacy skills from L1 to L2: From theory to practice", *Journal of Educational Issues of Language Minority Students*, Vol. 13, pp. 209–221.

Stewner-Manzanares G. (1988). *The Bilingual Education Act: Twenty Years Later.* Focus, 6, 1–8. Washington, DC: National Clearinghouse for Bilingual Education.

Taylor C. and Lafayette R. (2010). "Academic achievement through FLES: A case for promoting greater access to foreign language study among young learners", *Modern Language Journal*, Vol. 10, pp. 22–42.

Appendix A

SEP Spanish Knowledge Assessment

Nombre:_____ Year of Spanish: 1 2 3

Grade: 3 4 5

1. How would you answer the following:

___A.	¿Cómo te llamas?	1.	Muy bien, gracias.
___B.	¿Cómo estás?	2.	De nada.
___C.	Gracias.	3.	Soy de Springdale.
___D.	¿Cuántos años tienes tú?	4.	Me llamo Gabi.
___E.	¿De dónde eres tú?	5.	10

2. Which would you say in the

____morning	1. Hola.
____afternoon	2. Buenos días.
____night	3. Buenas tardes.
____anytime	4. Buenas noches.

3. Match the colors.

___a.	red	1. azul
___b.	yellow	2. blanco
___c.	green	3. rojo
___d.	blue	4. negro
___e.	white	5. rosado
___f.	orange	6. café
___g.	black	7. anaranjado
___h.	pink	8. verde
___ i.	brown	9. amarillo

4. Match the dates.

___a.	el primero de junio	1. May 5th
___b.	el treinta de enero	2. June 1st
___c.	el catorce de diciembre	3. December 14
___d.	el cinco de mayo	4. January 30th

5. Match the days of the week.

___a.	Monday	1. viernes
___b.	Tuesday	2. domingo
___c.	Wednesday	3. lunes
___d.	Thursday	4. sábado
___e.	Friday	5. martes
___f.	Saturday	6. jueves
___g.	Sunday	7. miércoles

6. Match the seasons.

___a.	spring	1. el verano
___b.	summer	2. el invierno
___c.	autumn	3. la primavera
___d.	winter	4. el otoño

7. Match the numbers.

_____ uno	A. 32
_____seis	B. 83
_____quince	C. 2006
_____ochenta y tres	D. 1
_____treinta y dos	E. 1000
_____mil	F. 122
_____ciento veintidós	G. 6
_____dos mil seis	H. 1st
_____primero	I. 15

8. Match the body part words:

_____eye	1. nariz
_____hand	2. dedo
_____head	3. ojo
_____foot	4. brazo
_____nose	5. boca
_____ear	6. mano
_____mouth	7. pie
_____finger	8. cabeza
_____hair	9. oreja
_____arm	10. pelo

9. Match the place words:

_____house	1. el banco
_____school	2. el parque
_____library	3. la escuela
_____bank	4. la biblioteca
_____park	5. la casa

10. Match the following:

_____Day of the Dead	1. Mexican folkdance/song
_____Holy Week/ Easter	2. skeletons, special flowers & bread
_____Cinco de Mayo	3. formal word for “you” (adults)
_____Three Kings Day	4. informal word for “you” (kids)
_____La Raspa	5. flower carpets used
_____tú	6. January 6th, gifts for children
_____usted	7. Mexicans defeat French army
_____Virgin of Guadalupe	8. colored eggs filled with confetti
_____papel picado	9. Patron Saint of Mexico
_____cascarones	10. Colorful cut-paper decorations

11. Read the following story and answer the questions.

Hay una gatita. La gatita se llama Gabi. El lunes Gabi duerme. Está contenta. Hay un despertador. El despertador suena. ¡Qué problema! Gabi come el despertador. Gabi duerme más. Ahora está muy contenta. Ahora no hay problema.

____1. Who is this story about?
a. a dog b. a cat c. a baby

____2. What is the character doing on Monday?
a. sleeping b. going to school c. crying

____3. What is the problem?
a. a friend comes b. there is nothing to eat c. an alarm rings

____4. What is the solution?
a. a friend comes b. Gabi eats the clock c. She goes away.

12. Read the following story and answer the questions.

Hay una muchacha. La muchacha se llama Marisol y tiene nueve años. Un día la muchacha tiene mucha hambre. Va al refrigerador y abre la puerta. ¡Hay un monstruo en el refrigerador! El monstruo cierra la puerta del refrigerador, y la muchacha grita, “¡Mamá! ¡Papá! Hay un monstruo en el refrigerador.” Pero los padres le dicen, “¡Qué ridículo!” ¡Qué problema!

____ 1. ¿Cuántas muchachas hay?
a. Marisol b. una c. un monstruo

____2. ¿Dónde está Marisol?

a. en la escuela b. nueve años c. en la casa

____3. ¿Por qué va Marisol al refrigerador?

a. porque hay un monstruo b. porque tiene hambre c. porque sí.

____4. ¿Quién cierra la puerta del refrigerador?

a. el monstruo b. Marisol c. Mamá

13. Read the following story and answer the questions.

Hay un robot. El robot se prende a las 7:00 de la mañana. Camina por toda la vecindad. Limpia las calles sucias. Pasa la aspiradora por las casas. Abre todas las puertas de los coches en las calles. Trota de casa a casa. A las ocho de la noche, se apaga. Se duerme en la calle. Otro robot pasa y ve al robot apagado que duerme en la calle. Usa el control remoto, pero no sirve – el robot duerme y duerme. Entonces el otro robot toma cuatro pilas Energizer y las pone en el robot. Y de pronto el robot se prende. ¡Qué curioso!

____1. ¿A qué hora se prende el robot?

a. la vecindad b. a las 7:00 de la mañana c. en la calle

____2. ¿Dónde camina el robot?

a. por toda la vecindad b. a las 8:00 de la noche c. cuatro

____3. ¿Funciona el control remoto?

a. sí b. No, no sirve. c. No hay control remoto.

____4. ¿Cuántas pilas usa el otro robot?

a. cuatro b. tres c. dos

- -

_______ I would like to continue learning Spanish next year.

Appendix B

ANOVA Tables

Table 5 Summary Table for One Way Analysis of Variance-Literacy Benchmark SEP Participation by Years — Fourth Grade

Source	*Df*	*SS*	*MS*	*F*	*p*
Participation	1	24544.286	24544.286	1.49	.225
Within Years	105	1727176.779	16449.303		
Total	106	1751721.065			

Note: N = 107; 22 students completed one year of Spanish and 85 completed two years.

Table 6 Summary Table for One Way Analysis of Variance-Literacy Benchmark SEP Participation by Years — Fifth Grade

Source	*Df*	*SS*	*MS*	*F*	*p*
Participation	2	193089.676	96544.838	4.12	.020
Within Years	71	1662475.783	23415.152		
Total	73	1855565.459			

Note: N = 74; 5 students completed one year of Spanish, 10 completed two years and 59 completed three years.