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Understanding ELLs at Different English Proficiency Levels in Dual Language Programs

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Abstract

The purpose of this research is to examine background characteristics, language proficiency, and academic achievement of 1415 fourth- through eighth-grade Spanish-speaking ELL students enrolled in a dual language program who differed by language proficiency. Results show that these student groups achieve at similar levels as their peers in English mainstream with respect to English language proficiency and English reading while also scoring slightly above average in Spanish reading achievement. Findings also indicated that students in the four language proficiency groups vary significantly in background characteristics, such as SES and special education, and in all outcome measures (language proficiency in English and reading achievement measured in Spanish and English): Fluent English Proficient outscored and were more advantaged than Advanced, who outscored Intermediate, who scored higher than Beginners. Further, the language proficiency outcomes between the groups were not as great in kindergarten and first grade, but increased across grade levels. Findings are discussed with respect to the need to identify students at early grade levels for oral and academic language interventions.

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English Language Learners (ELLs) are currently the fastest growing population in the U.S. (Clewell, Cosentino de Cohen, & Murray, 2007), with the number of ELLs expected to increase another 50% by 2025 (Passel, 2007). Hispanic children represent the largest number of children who speak English with difficulty and are the fastest growing group. Nationally, the academic performance of ELL and Hispanic students continues to be considerably below majority norms (e.g., Aud et al., 2011; California Department of Education, 2010; Fry, 2007; Genesee & Lindholm-Leary, 2011; Hemphill & Vanneman, 2010), and national studies of the Hispanic-White achievement gap shows that it remains unchanged after two decades (Aud et al., 2011; Hemphill & Vanneman, 2010). In addition, Olsen (2010) reports that half to three-quarters of secondary ELLs are long-term ELLs, despite being educated in English for 8+ years in US schools.

In general, most research on English language learners has been more narrowly focused on which educational programs and interventions best meet the needs of these students (Genesee, Lindholm-Leary, Saunders & Christian, 2006; Lindholm-Leary & Genesee 2010). More recently, this research has concentrated on dual language programs, which are designed to provide a high quality educational experience for ELL students and to promote higher levels of academic achievement and English language proficiency (Genesee & Lindholm-Leary, 2013; Genesee, Lindholm-Leary, Saunders & Christian, 2006). While research on these programs shows that they can promote bilingualism, biliteracy and achievement in ELLs, there has been insufficient analysis of distinct groups of ELL participants (Genesee & Lindholm-Leary, 2012; Genesee, Lindholm-Leary, Saunders & Christian, 2006; Lindholm-Leary & Howard, 2008), despite the requirement to examine subpopulations of students for the No Child Left Behind Act (No Child Left Behind [NCLB], 2002).

Research demonstrates that ELLs may experience a number of risk factors that have been identified as negatively associated with educational success, such as poverty, home environments where parental literacy skills are limited, and learning disabilities (Abedi & Gándara, 2006; Aud et al, 2011; Genesee et al., 2010; Genesee, Lindholm-Leary, Saunders & Christian, 2006). In addition, they often experience segregated or isolated schooling experiences or schools with high percentages of ELLs, minority populations, and poverty (Aud et al., 2011; Lindholm-Leary & Block, 2010), factors that are often associated with educational underachievement.

Yet, there is a dearth of research that provides an understanding of the diversity of Hispanic ELL students, how they achieve, and what factors are associated with their educational success or failure. In one of the few studies that examined subgroups of Hispanic ELLs, Lindholm-Leary and Hernández (2011) examined Hispanic students who differed in English language proficiency: native English speakers vs. Previous ELL but current English proficient students vs. current ELLs. They found that the three groups varied in parent education, language proficiency in Spanish, and achievement as measured in Spanish and English. They also found that Fluent English Proficient/Previous ELLs were the most Spanish proficient and bilingual, achieved at higher levels in English and Spanish, and closed the achievement gap with native English speakers in English mainstream programs.

The overall purpose of this study was to expand on the Lindholm-Leary and Hernández research to examine the background factors and language proficiency and

reading achievement outcomes of fourth- through eighth-grade Hispanic students who entered school as ELL and were disaggregated according to current English language proficiency. More specifically, this descriptive study will determine whether ELLs of different English proficiency levels differ significantly in background factors (parent education, SES) and in student outcomes of English language proficiency, English language arts, and Spanish reading near program entry and across grade levels.

Methods

Sample

The sample comprised 1415 4th- through 8th-grade students, who had been participating in a dual language program for at least the last four years. About half of the students were males (49%) and half were females (51%). Half (45%) of the students were in grades 4-5, and the remainder (55%) were in grades 6-8. All of the students were Hispanic, native Spanish speakers and had entered school as an English Language Learner (ELL).

The great majority of students (88%) were low income, as measured by participation in the federal free/reduced price lunch program. In terms of parent education, about 41% of students had parents who had not completed high school, 28% of parents had a high school diploma, 19% had some college (including vocational training), 8% were college graduates, and 4% had completed graduate school or a professional degree. The parent education levels of these students was far lower than the state average for all students and for the Early Childhood Educational Longitudinal Study (ECLS), which is a nationally representative sample of kindergarten students in the US (West, Denton, and Reaney 2001); for purposes here, we will only include the ECLS - Hispanic sample (Percentage of parents with high school or less was 69% for current sample, 45% for statewide sample, and 52% of ECLS-K Hispanic sample).

In addition, 4% of the sample qualified for Gifted and Talented programs and 9% were identified for special education services; about 2% of students had a speech or language impairment while 3% had been identified as having a specific learning disability.

For the purposes of this study, students were classified into one of four groups on the basis of their proficiency in English for their most current grade level. English proficiency was determined by the California English Language Development Test (CELDT), which categorizes students into one of five proficiency groups (Beginning, Early Intermediate, Intermediate, Early Advanced, Advanced). In addition, ELL students who have been evaluated as English proficient according to their scores on the CELDT are reclassified as Fluent English Proficient (FEP). Thus, the four groups of students are 1) Beg=Beginning/Early Intermediate (n=93, 7%); 2) Int=Intermediate (n=337, 24%); 3) Adv=Early Advanced/Advanced (n=318, 23%), and 4) FEP (n=667, 47%).

Program

These students were currently enrolled in a dual language program at one of 21 public elementary or middle schools in 13 school districts in the State of California. Students had participated in one of two dual language models, 90:10 or 50:50, with Spanish as the target language. In the 90:10 program, instruction was in Spanish 90% of the time during Kindergarten and first grade, 80% of the time in second grade, 70% of the time in

third grade, 60% of the time in fourth grade, and 50% afterward, with English instruction during the remainder of the time. Initial literacy instruction was in Spanish for all students; formal literacy instruction in English began in grade 2 or 3. Some students participated in a 50:50 dual language program in Spanish and English, in which students receive half of their instruction in each language across all grade levels and students learn to read first in their primary language and at about second grade, they add on formal reading in the second language. Students in the middle school received one or two courses taught through Spanish, language arts and/or a content course for which they received regular course credit. About 74% of students had participated in a 90:10 program and 26% in a 50:50 program. Students were fairly equally distributed by grade level in 90:10 (47% grades 4-5) and 50:50 (40% grades 4-5) programs.

Students were included in the study only if they had been in the same DL program and had achievement data for at least the past three years. Students were not excluded from the study if they were identified for special education.

Measures

Student achievement was assessed by examining the scale scores on the English Language Arts subtest of the California Standards Test (CST), a criterion-referenced state assessment in English. The CST yields scale scores and five performance levels (Far Below Basic, Below Basic, Basic, Proficient - at grade level, Advanced).

Students were also administered the Aprenda, a norm-referenced standardized achievement test that assesses reading and other content area achievement in Spanish. This assessment provides Normal Curve Equivalent (NCE), along with other, scores.

Students' language proficiency in English was assessed using the California English Language Development Test (CELDT), which is a criterion-referenced test that was developed by the State of California to fulfill the legal requirements of initially and annually testing English learners. The CELDT covers four skill areas (listening, speaking, reading, writing) and provides five performance levels (Beginning, Early Intermediate, Intermediate, Early Advanced, Advanced) and vertical scale scores. Test score data and background information were obtained from school personnel.

Results

English Language Proficiency

Students' proficiency in English was examined using the California English Language Development Test (CELDT). Table 1 presents the percentage of students at each level of the CELDT according to their current grade level. As Table 1 indicates, the percentage of students who were at different English proficiency levels varied by grade level. Thus, as students moved up the grade levels, more students were proficient in English. Across the grade levels there was a higher percentage of students who reached the Early Advanced or Advanced levels and FEP level (from 46% in grade 4 to 79-80% in grades 7-8). By seventh and eighth grades, these students were as likely to be proficient in English as their peers in the state who were mostly enrolled in English mainstream programs (79-80% in current study vs. 81-84% state average).

Insert Table 1 about here

In addition, despite the fact that students in the 90:10 program received considerably less instruction through English over the years compared to their 50:50 peers, 90:10 students were as likely to be proficient in English (Early Adv/Adv or FEP) compared to students in the 50:50 program (69% vs. 70%), though 90:10 students were less likely to be reclassified as FEP than 50:50 students (44% vs. 55%).

However, Table 1 also indicates that a very small percentage of students were at the Beginning level (2% overall) or Early Intermediate (7% overall) levels, and these percentages also decreased across the grade levels (from 12-13% in grades 4-5 to 3-5% in grades 7-8). Nonetheless, after five or more years of instruction, one might expect that no child would still be in the lowest two categories and that after 6-8 years of instruction, fewer children would still be at Intermediate. Thus, the next analyses explore background and language proficiency differences between students at the four English proficiency levels.

Background characteristics of the students in each of the four English language proficiency groups that might impact variations in English language proficiency scores are presented in Table 2; with the percentage of students in each English language proficiency group who were economically disadvantaged, whose parents had a high school or less education vs. college graduate, and who were identified for special education. As this table shows, there were significant relationships between English language proficiency group and each of the background factors, with Beg children most likely to be economically disadvantaged, have parents with a high school diploma or less, and be identified for special education, and least likely to have a parent who was a college graduate. Moving up the English language proficiency groups, we see that each higher group with more English proficiency is less likely to be economically disadvantaged, have parents with a high school diploma or less, to be identified for special education services, and more likely to have a parent who is a college graduate (though the differences between Beg and Int were small for the SES characteristics). Thus, the students in these groups who all started as Spanish-speaking ELL students differed not only in their English language proficiency outcomes but also in their student background characteristics.

Insert Table 2 about here

Given that students varied in their background characteristics, it is important to determine whether they varied significantly in their English language proficiency scores at program entry (beginning of kindergarten or first grade). All of these students were identified as English language learners at school entry; Spanish speakers with sufficient English proficiency at school entry are designated as Initially Fluent English Proficient and were not included in this study. Table 3 presents the percentage of students at each CELDT level for each of the language proficiency groups. As Table 3 shows, there were students who started kindergarten or first grade at the Beginning level in each of the

proficiency groups, though it was clearly more likely for the Beg and then Int groups to score as Beginners (81% and 41%). However, even 24% of Adv and 16% of FEP students were at the Beginning level when they started kindergarten. Furthermore, a quarter of Adv and FEP students were Early Intermediate and half were Intermediate at kindergarten entry. Thus, Adv and FEP students were able to begin school at apparently similar levels as their peers who started at those levels but stayed at the Beg or Int levels. Thus, we turn to scale scores to determine whether students at the same CELDT level varied significantly.

Insert Table 3 about here

The first set of analyses examines whether the scale scores of students at different proficiency levels varied at entry to kindergarten ($n=279$); using ANOVA, language proficiency group is a highly significant main effect for English proficiency score [$F(3,275) = 10.0, p < .001, \text{partial } \eta^2 = .098, \text{power} = .998$]. Scheffé post-hoc comparisons indicate that no group scores significantly different from the group immediately next to it (Early Adv does not score significantly different from FEP or Intermediate), but each group scores significantly different from groups that are 2 proficiency levels different (e.g., FEPs outscored Beg, and Int; and Early Adv outscore Beg students (FEP $\underline{M}=404.8$; Adv $\underline{M}=386.5$; Int $\underline{M}=349.3$; Beg $\underline{M}=287.7$). If we use program entry (grade K or 1) with a larger sample size ($n=446$), the results are similar, though the mean scores are higher since the CELDT uses vertical scaling: [$F(3,442) = 13.4, p < .001, \text{partial } \eta^2 = .083, \text{power} = 1.0$], (FEP $\underline{M}=422.4$; Adv $\underline{M}=412.5$; Int $\underline{M}=368.9$; Beg $\underline{M}=325.3$). Thus, at kindergarten (and first grade) entry to the program, there is less variation in scores between pairs of groups, though language proficiency group is still highly significant.

Insert Table 4 about here

By grade 3, the grade at which most students begin to read in English, language proficiency group is again a highly significant main effect for CELDT score [$F(3,858) = 126.3, p < .001, \text{partial } \eta^2 = .306, \text{power} = 1.0$], but now, Scheffé post-hoc comparisons indicate that there are significant differences among each pair of language proficiency groups (FEP $\underline{M}=493.1$; Adv $\underline{M}=474.4$; Int $\underline{M}=440.3$; Beg $\underline{M}=402.8$); this result indicates that the groups have become more different from each other across the grades from program entry to third grade.

The second set of analysis examines whether students who scored at the first three CELDT levels (Beg/Early Int or Intermediate) had similar or different scale scores at program entry to help determine why there are such different levels of later performance. Table 5 presents the kindergarten and third grade mean scale scores for the students who started at Beginner/Early Intermediate and Intermediate for each of the proficiency groups while Figure 1 illustrates the different scores at kinder and third grade for each language proficiency group scoring at Beginner/Early Intermediate or Intermediate upon entry to kindergarten. What the table and figure clearly indicate is that even among students who

all started as Beginner/Early Intermediate, there were differences in their scale scores by proficiency group, with Beg/Early Int scoring the lowest ($M = 277.5$), followed by Intermediate, who scored similarly to Early Adv/Adv ($M = 353.0 - 355.4$), who scored lower than FEP ($M = 376.6$); these differences were statistically significant [$F(3,118) = 3.9, p < .01$, partial $\eta^2 = .09$, power = 0.82], though Scheffé post-hoc comparisons showed that the only significant pair-wise differences were that FEP and Intermediate, but not Early Adv/Adv, scored significantly higher than Beg/Early Int. A similar analysis was conducted for those students who started kindergarten at the Intermediate level. Among these students, there was no statistically significant difference by proficiency level; Intermediate scored only slightly lower than Early Adv/Adv who scored slightly lower than FEP ($M_s = 466.7$ vs. 471.9 vs. 478.9).

Insert Table 5 and Figure 1 about here

By third grade, however, student groups were more distinct. Among the students who began as Beginner/Early Intermediate, there were significant group differences [$F(3,121) = 29.1, p < .001$, partial $\eta^2 = .419$, power = 1.0], with Scheffé post-hoc comparisons demonstrating significant differences among each pair of language proficiency groups (FEP $\underline{M}=502.9$; Adv $\underline{M}=488.3$; Int $\underline{M}=445.8$; Beg $\underline{M}=393.7$). Similarly, among the students in each group who began as Intermediate, scores varied significantly by language proficiency group differences [$F(2,48) = 15.9, p < .001$, partial $\eta^2 = .399$, power = 0.999]. Scheffé post-hoc comparisons revealed that students in the current Intermediate group scored significantly lower than those in the Early Adv/Adv group and the FEP group, though the Adv/Adv FEP groups did not differ significantly from each other.

Reading Achievement in English

Student reading achievement in English was examined using the California Standards Test (proficient = score of 350). Across all proficiency groups ($n=1404$), the overall mean ($\underline{M}=340.2$) was similar to the state average for ELL and FEP students ($\underline{M}=339$), though the state average included FEP students from all language and ethnic groups, many of whom had higher levels of education than the Hispanic parents here). Also, the overall mean was a little higher than the average for Latino students ($\underline{M}=330$) though many of the Latino students in the state average are native English speakers, but did not reach the mean for *all* students ($M=360$). However, FEP students ($M=369$) closed the achievement gap, scoring close to the average for English monolingual students ($M=371$).

Furthermore, students in the 90:10 program scored the same as students in the 50:50 program ($M=340.3$ vs. $M=339.9$), despite the fact that students in the 90:10 model had received considerably less instruction through English than students in the 50:50 model.

As with the previous sets of analyses for language proficiency, English language arts achievement was analyzed to determine whether there was a significant difference across the four proficiency groups. Results indicated that language proficiency group was a highly significant main effect at the most current grade level [$F(3,1400) = 298.1, p < .001$, partial $\eta^2 = .390$, power = 1.0]. According to Scheffé post-hoc comparisons, FEPs

outscored Early Adv/Adv who outscored Intermediate who outscored Beg/Early Int (M = 369.4 vs. 331.6 vs. 307.4 vs. 274.8).

A one-way MANOVA that examined student achievement for second through eighth grades (combining sixth, seventh, eighth grade into one category) for language proficiency group revealed a significant multivariate main effect for language proficiency group, Wilks' $\lambda = .481$, $F(15, 858.9) = 17.4$, $p < .001$, partial eta squared = .216, power = 1.0. Given the significance of the overall test, univariate main effects were also examined. Highly significant univariate main effects for language proficiency were obtained for each grade level. Table 6 and Figure 2 display the mean scale scores across the grade levels for each language proficiency group [Grade 2: $F(3,315) = 27.6$, $p < .001$, partial eta² = .208, power = 1.0; Grade 3: $F(3,315) = 37.5$, $p < .001$, partial eta² = .263, power = 1.0; Grade 4: $F(3,315) = 72.7$, $p < .001$, partial eta² = .409, power = 1.0; Grade 5: $F(3,315) = 90.2$, $p < .001$, partial eta² = .462, power = 1.0; Grades 6-8: $F(3,315) = 64.7$, $p < .001$, partial eta² = .381, power = 1.0]. As we saw with language proficiency above, with each increasing grade level, the difference between groups increased across grade levels. Thus, while Scheffé post-hoc comparisons yielded only differences favoring FEPs versus others in grade 2, by the time the students were in the upper grades, each group was significantly distinct from each other group in their English language arts scores.

Insert Table 6 and Figure 2 about here

Reading Achievement in Spanish

Finally, the above analyses were based on assessment measures in English that are correlated with the student language proficiency groups. Thus, because these students are native Spanish speakers and being instructed through Spanish for at least part of their instructional day, it is also important to examine whether these group differences are evident in analyses of reading achievement measured in Spanish. Students were assessed with the Aprenda, a norm-referenced achievement test, and the scores were normal curve equivalents (NCEs) with a mean of 50.

In examining reading achievement in Spanish, students achieved above grade level (Mean NCE = 58.3, Mean percentile = 65). Spanish reading achievement was analyzed to determine whether there was a significant difference across the four proficiency groups. Results indicated that language proficiency group was a highly significant main effect at the most current grade level [$F(3,1190) = 90.2$, $p < .001$, partial eta² = .185, power = 1.0]. According to Scheffé post-hoc comparisons, each pair of language proficiency groups scored significantly different, except for Early Adv/Adv with Intermediate [M for NCEs (percentiles) is as follows for FEP, Early Adv/Adv, Intermediate, Beg/Early Int: 66.0 (78) vs. 54.1 (57) vs. 50.3 (50) vs. 39.9 (30)]. Thus, these results also show that the most highly proficient English speakers who also have the highest reading achievement also score the highest in reading achievement in Spanish. In contrast, those students who have the lowest language proficiency in English and lowest reading in English also have the lowest reading achievement as measured in their primary language of Spanish.

Students in the 90:10 program scored significantly higher than students in the 50:50 program ($M=59.8$ vs. $M=54.5$), $t(1192) = 4.3, p < .001$).

A one-way ANOVA was conducted to determine whether the NCE scores of students at different proficiency levels varied at first grade ($n=202$), or near entry to the program. According to the results, students in the different language proficiency groups had significantly different Spanish reading NCE scores [$F(3,198) = 29.8, p < .001$, partial $\eta^2 = .311$, power = 1.0]. Scheffé post-hoc comparisons indicate that all pairs differed significantly from each other, except for FEP and Early Adv/Adv [M for NCEs (percentiles) is as follows for FEP, Early Adv/Adv, Intermediate, Beg/Early Int: 73.9 (86) vs. 69.9 (82) vs. 59.1 (66) vs. 48.4 (46)].

A one-way MANOVA that looked at Spanish reading achievement for third through sixth grades by language proficiency group revealed a significant multivariate main effect for language proficiency group, Wilks' $\lambda = .622, F(12, 545.3) = 8.9, p < .001$, partial $\eta^2 = .146$, power = 1.0. Since the overall test was significant, univariate main effects were also examined. Highly significant univariate main effects for language proficiency were obtained for each grade level. Table 7 and Figure 3 display the mean NCE scores across the grade levels for each language proficiency group [Grade 3: $F(3,209) = 14.1, p < .001$, partial $\eta^2 = .168$, power = 1.0; Grade 4: $F(3,209) = 22.0, p < .001$, partial $\eta^2 = .240$, power = 1.0; Grade 5: $F(3,209) = 26.5, p < .001$, partial $\eta^2 = .275$, power = 1.0; Grade 6: $F(3,209) = 34.7, p < .001$, partial $\eta^2 = .332$, power = 1.0].

Insert Table 7 and Figure 3 about here

Discussion

The current results show that the ELL students who have participated in the dual language program overall make excellent gains over time and that the great majority of students are proficient in English, approach grade level scores in English reading, and achieve slightly above grade level in Spanish reading by the end of elementary school. Also by the end of elementary school, the dual language students are as likely to be proficient in English as their ELL peers in the state, and to achieve at similar levels as their Hispanic peers in English reading. These results are consistent with other studies of dual language programs showing that ELLs achieve comparably to their peers in English mainstream programs while also achieving at grade level in Spanish reading (for reviews, see Genesee et al, 2006; Lindholm-Leary & Genesee, 2010; Lindholm-Leary & Hernández, 2011; Lindholm-Leary & Howard, 2008).

Furthermore, students in the 90:10 program were as likely to be proficient in English as students in the 50:50 dual language program, who were as likely to be proficient as ELL peers in English mainstream instruction (state average). These are important findings since they demonstrate that the students are not disadvantaged by having spent a considerable amount (at least half) of their instructional day in Spanish. Thus, the results show that the amount of instructional time in English is not associated with the level of English proficiency; that is, students who received all or most of their instruction through English (mainstream ELL peers in the state) were not more likely to be proficient in

English compared to those who received half their day in Spanish (50:50 model) or those who received from 10-40% of their day in English (90:10 model). Again, this finding corroborates previous reviews of research showing that greater amounts of instruction through English are not necessarily associated with higher levels of proficiency in English or higher reading achievement in English (for reviews, see Lindholm-Leary & Borsato, 2006; Lindholm-Leary & Genesee, 2010).

The major contribution of this article, though, was in demonstrating the variability within the sample of Spanish-speaking students who began school as ELLs, and who are normally addressed as a homogeneous group within the research literature and often within the classroom. However, by investigating the current English language proficiency of the fourth through eighth graders and examining whether there were differences in the students' background characteristics and also looking back at their progression from program entry in kindergarten or first grade, we are able to address some important issues about this disaggregated group of students.

The fourth- through eighth-grade students were categorized into one of four language proficiency categories based on their current English language proficiency score (Beginner/Early Intermediate, Intermediate, Early Advanced/Advanced, or reclassified as Fluent English Proficient – FEP). Results showed that in each of the three outcome measures (English language proficiency, English reading achievement, Spanish reading achievement), language proficiency group had a significant impact on the outcome measure, with FEP students outscoring Early Advanced/Advanced, who outscored Intermediate, who outscored Beginner/Early Intermediate students. However, the students did not only differ significantly in these outcome measures, but they also varied significantly in their background characteristics. That is, Beginner/Early Intermediate students were most likely to be economically disadvantaged, to have parents who had a high school diploma or less, to have special education services and least likely to have a parent who was a college graduate. In addition, students within each increasing proficiency level had greater economic and parent education advantages and less likelihood of being identified for special education. These outcome and student background differences suggest that these students are not at all homogeneous, but are quite distinct, though they started school as primarily low SES Spanish-speaking ELLs.

To better understand these students, we looked at scores at or near program entry in kindergarten or first grade. While there was clearly a range of scores from lower to higher in each of the four proficiency groups at program entry (e.g., 16% of FEP and 24% of Early Advanced/Advanced students began kindergarten at the Beginning level in English language proficiency), overall the starting scale score varied significantly by language proficiency group. The FEP students tended to score much higher, and the Beginner/Early Intermediate much lower, than the other groups, and that was just as true for reading achievement in English and Spanish. Furthermore, while one might expect that the Beginner/Early Intermediate group scored lower in English but was stronger in Spanish, and that the FEP group was the strongest in English but weaker in Spanish, that was not the case. In fact, the highest achievers in English were also the highest achievers in Spanish, and the lowest achievers in Spanish were the lowest achievers in English. Thus, these findings again lend credence to the research showing the strong relationship in reading achievement across the two languages for students instructed through both languages

(August & Shanahan, 2010; Genesee & Geva, 2006; Lindholm-Leary & Genesee, 2010). In addition, the significantly greater performance in English language proficiency, English reading, and Spanish reading of the most bilingual subgroup (FEPs) suggests the importance of providing language arts instruction through both languages.

The findings from this study also suggest that students need to be identified earlier for interventions in language and literacy development. While these research findings do not point to the content of such interventions, they do suggest that some students, like the Beginner/Early Intermediate students, begin at much lower levels in language development and may need some intervention at kindergarten or first grade, or even earlier in preschool. This suggestion is strengthened by the findings here that the kindergarten scores were not as divergent as the third grade scores. In addition, we saw that some students who developed into Early Advanced/Advanced or FEP students had started school with English language proficiency scores at the Beginning, Early Intermediate, or Intermediate level and were able to make exceptional gains across the grades. Thus, one might expect that interventions aimed at improving oral and academic language development at the kindergarten and first grade levels might improve the trajectories of these students at later grade levels.

Also, it is important to point out that these data were examined with respect to English language proficiency, but that does not mean that interventions must be conducted in English. In fact, given the strong outcomes of the Early Advanced/Advanced and FEP students, who had the strongest Spanish reading achievement, one could argue that the interventions could be provided in the students' primary language. In addition, other research has shown that the FEP students tend to have not only the strongest reading scores but also the strongest Spanish oral language proficiency and bilingual proficiency (Lindholm-Leary & Hernández, 2011; Lindholm-Leary & Howard, 2008). Thus, in a dual language program where the students are instructed through two languages, one could argue that such interventions might be most effective in the student's primary language. Corroboration for this suggestion comes from researchers who have examined biliteracy and reported that language and literacy skills in the primary language play an important role in the second language (e.g., August & Shanahan, 2010; Genesee & Riches, 2006; Proctor et al. 2005, 2006). Furthermore, armed with research on the skills that appear to transfer from one language to another and on instructional approaches or strategies that may be most beneficial for promoting language and literacy in a second language (e.g., August & Shanahan, 2010; Genesee & Riches, 2006; Saunders & Goldenberg, 2010), interventions could be highly productive in the student's primary language.

In conclusion, this research is important in that it provides descriptive information about Spanish-speaking ELL students' trajectories across the grade levels in English language proficiency, and English and Spanish reading achievement. However, there are limitations to this research as well. First, despite the fairly large sample of students, there was not always full longitudinal outcome or background data on many students. As a consequence, the sample sizes were limited for some of the analyses that examined outcomes back to kindergarten or first grade. Second, we had to rely on language proficiency in a second language to classify the students rather than using language proficiency in their primary language. There was simply not sufficient or reliable data on students' Spanish language development to use their primary language as the means to

categorize them. One could argue that English language proficiency turned out to be a good variable to use for classifying the students since they needed to develop English proficiency, but perhaps further research could address this issue in more detail. Finally, there was no adequate comparison sample of Spanish-speaking students in mainstream English instruction. Instead, we had to rely on the statewide average of Hispanic students, which included both native English speakers and ELL students of all SES levels. Also, it would have been helpful to examine a comparison sample of FEP students in English mainstream programs, but the statewide data of FEP students included all ethnic and SES groups, which rendered that group untenable. It is hoped that this research provides some impetus to better understand the heterogeneous groups of ELL students who enter our schools.

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Table 1. Level of Language Proficiency in English by Grade Level

	Grade					Total n=1207
	4 n=318	5 n=276	6 n=278	7 n=179	8 n=156	
RFEP*	79 (25%)	93 (34%)	125 (45%)	86 (48%)	78 (50%)	461 (38%)
Advanced*	9 (3%)	7 (3%)	10 (4%)	14 (8%)	8 (5%)	48 (4%)
Early Advanced*	57 (18%)	54 (20%)	67 (24%)	43 (24%)	37 (24%)	258 (21%)
Intermediate	133 (42%)	87 (32%)	59 (21%)	27 (15%)	29 (19%)	335 (28%)
Early Intermediate	29 (9%)	27 (10%)	13 (5%)	8 (4%)	3 (2%)	80 (7%)
Beginning	11 (3%)	8 (3%)	4 (1%)	1 (1%)	1 (1%)	25 (2%)
English Proficient*	145 (46%)	154 (56%)	202 (73%)	143 (80%)	123 (79%)	767 (64%)

Note. Early Advanced/Advanced refer to levels of the California English Language Development Test (CELDT) that denote English language proficiency. Students at the CELDT English language proficiency levels of Beginning, Early Intermediate, and Intermediate are not included in this table.

Table 2. Background characteristics of students in each English language proficiency group

	% Econ [^] Disadvan	%Par Ed ^{^^}		% Spec ^{^^^} Education
		HS or less	College Grad	
Beg	95%	77%	7%	33%
Intermediate	94%	80%	5%	13%
Early Adv/Adv	89%	68%	11%	8%
FEP	83%	61%	17%	3%

[^] (χ^2 (887) = 20.6, $p < .001$; ^{^^} (χ^2 (938) = 32.4, $p < .001$; ^{^^^} (χ^2 (1402) = 102.2, $p < .001$)

Table 3. Comparing English language proficiency outcomes of students in each English language proficiency group

Group	Beg	Early		Early	
		Intermed	Intermed	Advanced	Advanced
Beg/Early Int	81%	13%	6%		
Intermediate	41%	44%	14%		
Early Adv/Adv	24%	28%	44%	4%	
FEP	16%	23%	53%	7%	1%

Table 4. English Language Proficiency Outcomes of students in each English language proficiency group

	Kinder [^] (n=18, 78, 61, 122)	3 rd Grade ^{^^} (n=63, 253, 195, 351)
Beg	287.7 (87.9)	402.8 (45.2)
Intermediate	349.3 (105.3)	440.3 (40.7)
Early Adv/Adv	386.5 (105.9)	474.4 (40.7)
FEP	404.8 (96.3)	493.1 (44.6)

[^] $F(3, 275) = 10.0, p < .001$; partial eta squared = .098, power = 0.998; FEP > Int; Early Adv > Beg;

^{^^} $F(3, 858) = 126.3, p < .001$; partial eta squared = .31, power = 1.0; FEP > Early Adv > Int > Beg

Table 5. Comparing English language proficiency outcomes of students in each English language proficiency group at grades 1 and 3

Group	English Prof Level at Kinder	Kinder Score Mean (SD)	3 rd Grade Mean (SD)
Beg/Early Int	Beg/Early Int (n=15)	277.5 (75.1)	393.7 (39.6)
Intermediate	Beg/Early Int (n=57)	353.0 (91.8)	445.8 (43.7)
	Intermediate (n=10)	466.7 (36.6)	452.6 (32.3)
Early Adv/Adv	Beg/Early Int (n=24)	355.4 (93.6)	488.3 (41.3)
	Intermediate (n=20)	471.9 (26.1)	501.3 (25.6)
FEP	Beg/Early Int (n=26)	376.6 (94.3)	502.9 (33.1)
	Intermediate (n=37)	478.9 (16.9)	523.5 (38.3)

Table 6. Mean (SD) English Language Arts Scale Scores by Language Proficiency Level

MANOVA Longitudinal	Grade				
	2	3	4	5	6/7/8
Beginning/Early Intermediate (n=9)	264.1 (21.0)	241.3 (35.3)	270.6 (34.9)	261.1 (31.6)	272.3 (32.9)
Intermediate (n=50)	262.9 (19.0)	266.4 (34.7)	294.6 (30.2)	295.0 (25.9)	309.4 (33.5)
Early Advanced/Advanced (n=79)	275.5 (25.5)	277.0 (31.6)	310.3 (28.5)	310.7 (31.6)	326.7 (34.6)
FEP (n=181)	302.8 (38.3)	315.0 (41.8)	355.3 (35.6)	361.3 (35.8)	369.1 (36.1)
CROSS-SECTIONAL					
Average for all students			337	340	343
Average for Hispanic			358	349	348

Table 7. MANOVA - Mean NCE (Percentile) Spanish Reading NCE Scores by Language Proficiency Level

	Grade (n=213)			
	3	4	5	6
Beginning/Early Intermediate (n=7)	53.3 (55)	35.6 (24)	34.0 (22)	24.8 (11)
Intermediate (n=34)	55.4 (59)	51.4 (51)	51.1 (51)	46.6 (43)
Early Advanced/Advanced (n=53)	65.2 (76)	55.5 (60)	58.5 (65)	58.8 (65)
FEP (n=119)	72.7 (85)	67.8 (79)	68.9 (80)	70.5 (83)

Figure 1. Growth in CELDT (scale scores) from kinder to third grade for students who started at Beginner/Early Intermediate or Intermediate level for each language proficiency group

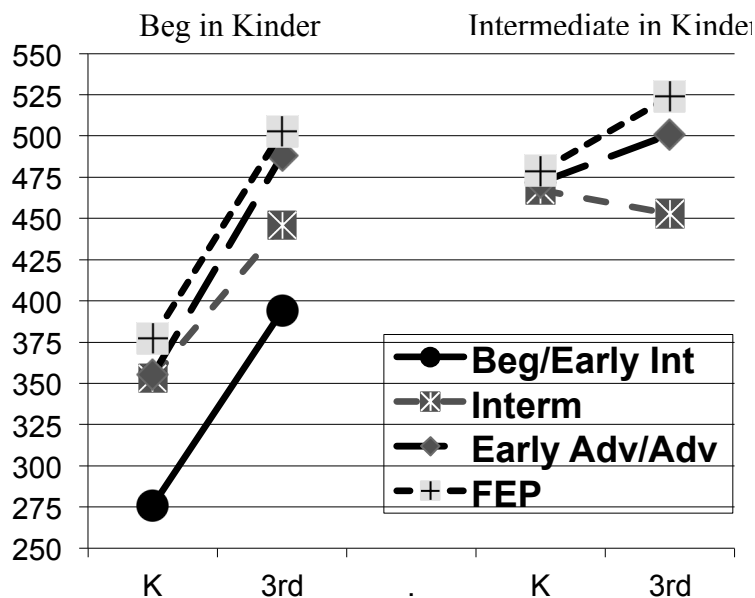


Figure 2. Growth in English language arts (scale scores) from second to eighth grade for each language proficiency group

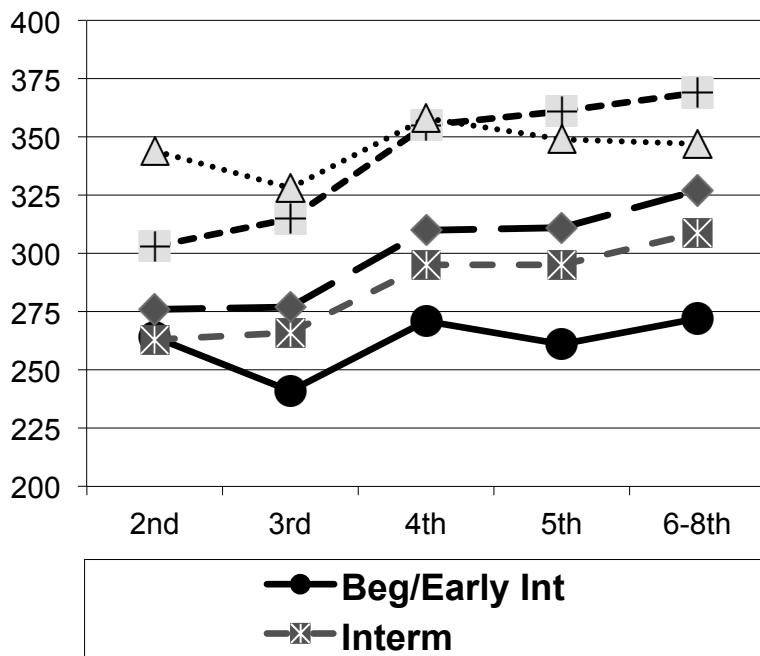


Figure 3. Growth in Spanish reading achievement (NCEs) from third to sixth grade for each language proficiency group

