Enhancing Success for All for Hispanic Students: Effects on Beginning Reading Achievement

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Abstract

The reading performance of Hispanic children in the U.S. is becoming a central concern in education policy and reform. This paper reports the results of a study designed to evaluate the impacts of a form of the Success for All beginning reading program modified to meet the needs of Hispanic students, particularly those who are English language learners. The enhanced program included embedded multimedia threaded through teachers’ lessons, containing humorous segments on letter sounds, sound blending, and vocabulary, as well as cooperative learning, vocabulary activities, and other interventions. A matched experiment evaluated the reading success of Hispanic kindergarten and first grade children in four experimental and four matched control schools in various parts of the U.S. The results indicate that students who experienced the enhanced Success for All beginning reading program scored significantly higher than control students at both grade levels on Woodcock Word Identification, Word Attack, and Passage Comprehension subtests. This study adds to evidence that Success for All can enhance the achievement of Hispanic children.
Enhancing Success for All for Hispanic Students: Effects on Beginning Reading Achievement

The reading performance of Hispanic children in the U.S. is becoming a central concern in education policy and reform. Sixty-five percent of non-English speaking immigrants in the U.S. are of Hispanic origin (NCES, 2004), and 79% of English language learners speak Spanish (NCES, 2002). Hispanic children run the gamut from English language learners who speak no English at all to those who are fully proficient in English. However, as a group Hispanic children are at risk for reading difficulties. Only 44% of Hispanic fourth graders scored at or above the “basic” level on the 2002 National Assessment of Education Progress (NAEP; Grigg, Daane, Jin, & Campbell, 2003), in comparison to 75% of Anglo students. The numbers of Hispanic students have increased dramatically in recent years, making this America’s largest minority group (Van Hook & Fix, 2000).

Despite the rapid increase in the numbers of Hispanic children in American schools, there is relatively little research on effective reading programs for these children. In a recent review of the research on reading strategies for English language learners, Slavin & Cheung (2004) found that there were few studies that compared reading programs to control groups in studies meeting even the most rudimentary standards. Among the studies that did meet methodological adequacy standards, the evidence supported use of well-structured beginning reading programs emphasizing teaching of systematic phonics, vocabulary, and
comprehension strategies. The largest number of such studies involved evaluations of the Success for All reading program, described below, with Hispanic students in various U.S. districts.

Success for All. The Success for All program is an approach to comprehensive literacy reform that is used in approximately 1300 elementary schools in the U.S., nearly all of which serve high-poverty areas. Success for All combines many elements to attempt to ensure that all children are successful in reading from the beginning of their time in school. Table 1 summarizes the main elements of Success for All.

| TABLE 1 HERE |

Research on Success for All with students in general has found consistent positive effects of the program on student reading performance (Slavin & Madden, 2000, 2001). A recent review of research on 29 comprehensive reform programs by Borman et al. (2003) identified 41 experimental-control studies of Success for All, plus five more of a closely related program called Roots & Wings. Collectively, these studies found positive effects on students’ reading achievement.

For English language learners, Success for All has two variations. One is a Spanish bilingual program, Exito para Todos, which teaches reading in Spanish.
Success for All in grades K-2 and then transitions students to English-only instruction, usually starting in third grade. The other is an English language development (ELD) adaptation, which teaches children in English with appropriate supports, such as vocabulary development strategies linked to the words introduced in children’s reading texts. In both cases, Success for All is particularly well suited to the needs of English language learners. It makes extensive use of cooperative learning, which has been found to be particularly beneficial to ELLs in giving them routine opportunities to practice and use new vocabulary and concepts in a safe, social environment (see Calderón, Hertz-Lazarowitz, & Slavin, 1998), and uses a step-by-step phonetic approach to reading with extensive teaching of vocabulary that helps make reading accessible to all children who are struggling to learn to read in a language that may not be completely familiar to them.

Both adaptations of Success for All have been extensively researched with Hispanic ELLs. A three-year longitudinal study in California evaluated both adaptations, comparing Success for All and control schools in grades 1-3. Results strongly favored the Success for All schools on individually-administered Woodcock Reading Mastery Test in Grades 1-2, in both the Spanish bilingual and the English adaptations (Livingston & Flaherty, 1997). The evaluation of the bilingual adaptation used the Spanish Woodcock, while the evaluation of the ELD adaptation used the English Woodcock. A Houston study of the bilingual adaptation also found significantly positive effects of Success for All on the
Spanish Woodcock (Nunnery et al., 1997) for Hispanic first graders. Ross et al. (1998) evaluated the English language development adaptation of Success for All in Tucson, and found strong positive effects on the English Woodcock and the Durrell Oral Reading Test. In a Texas statewide study, Hurley et al. (2001) found that Hispanic students in the 95 Success for All schools gained more on the Texas Assessment of Academic Skills over a four year period than did other Hispanic students in Texas.

**ESL Strategies.** Research on the learning processes of English language learners (e.g., Carlo et al., 2004) finds that these students need to link visual and auditory information as they learn English reading. Fitzgerald (1995) found that although ESL learners might have a slower reading pace and fewer responses than native English speakers, the strategies that help native English speakers learn to read are also supportive for ELLs. However, with ELLs, teachers need to be more careful in wording questions, give students more time to respond, and ensure that ELLs have the vocabulary and background knowledge to comprehend the reading selections (Fitzgerald, 1995; Gersten & Baker, 2000; Carlo et al., 2004; Calderón, 2001). To do this, teachers of ELLs have long shown students real objects (“realia”) and acted out or had children act out new words (“total physical response”), among other means of linking visual and auditory information (Calderón, 2001).
One of the major impediments to English reading comprehension for ELLs is insufficient academic vocabulary in English (Nagy, 1997; National Reading Panel, 2000). Simply providing additional incidental reading is not sufficient. Practices that have been found to improve vocabulary development among ELLs include frequent presentations in many contexts of general-purpose academic words likely to be encountered across a variety of content areas (Carlo et al., 2004; Beck et al., 1987), using engaging, appropriate texts (Guthrie & Wigfield, 2000), providing cognates when appropriate (García & Nagy, 1993; García, 2000), and strongly emphasizing context in teaching vocabulary (Nation, 2001; Nagy & Scott, 2000).

Cooperative learning is a component of most successful strategies for increasing the reading achievement of English language learners (Calderón, 2001). For example, Calderón, Hertz-Lazarowitz, and Slavin (1998) used cooperative learning as the basis of a strategy for transitioning students from Spanish to English reading, and found positive effects on reading measures and on transitions to English-only instruction. Cooperative learning is a key component of most of the successful reading strategies for ELLs identified in a review of research by Slavin and Cheung (2004). These include Direct Instruction (Gersten, 1985), and programs developed by Goldenberg et al. (1990), by Carlo et al. (2004), and several others. Cooperative learning gives students regular opportunities to use their developing language skills in a safe, supportive
Many ELLs are reluctant to speak in class for fear of being laughed at for their mistakes, but are happy to talk at length with a small group of peers. Cooperative learning with group goals and individual accountability can be beneficial for all students (Slavin, 1995; Slavin, Hurley, & Chamberlain, 2001), but the opportunity to use English in a supportive small group makes this strategy particularly likely to help ELLs.

_Enhancing Success for All for Hispanic Students._ Despite the consistent positive achievement effects for Hispanic students and English language learners found in several experimental-control comparisons (Slavin & Cheung, 2004; Slavin & Madden, 1999), there is still a need to enhance the program’s capacity to ensure success for all students. In most of the studies, Hispanic students in high-poverty Success for All schools scored significantly better than similar students in control schools, but were still performing below national norms. In response to this, the nonprofit Success for All Foundation carried out a major redevelopment of the SFA beginning reading program designed to increase the program’s effectiveness for English language learners in general, with a particular focus on Hispanic ELLs.

_Embedded Multimedia._ The centerpiece of the redevelopment effort was the creation of multimedia content designed to help ELLs and other students learn to read by presenting to them visual and auditory content that connects sounds and letters, demonstrates sound blending strategies, and acts out the meanings of
words in children’s texts likely to be new to many of them. The multimedia content was designed to be shown on DVDs in many brief, 1-3 minute segments threaded into teachers’ lessons. The main components of the multimedia content, called Reading Reels, were as follows.

**The Animated Alphabet:** Animations are used to teach and reinforce sound/symbol relationships. For example, the video introducing the short /e/ sound features an elephant pushing a rock with an “e” on it up a hill, making an /e/ sound with each push. At the top, the rock rolls down, and the exhausted elephant says “ehhhh” in frustration. Students vocalize the sounds presented in the Animated Alphabet segments. The pairing of the memorable images, the letter sound, and the letter shape gives students many mental pathways to link the letter with its sound. There are animations for 58 different graphemes that comprise most of the phonemes used in the English language. Each animation is between 30 seconds and one minute long.

**The Sound and the Furry:** Video skits, using SFA puppet characters, model the word blending process, phonemic awareness, spelling, fluency, reading strategies, and cooperative learning routines. For example, a puppet sees a sign, “Watch out for stick.” He sounds out the word “stick” phonetically. Then he notices a stick, which he picks up. The stick sticks to his fur, and in trying to get it off he bites it—and then realizes he’s in real trouble. At the end of each segment the sound blending is repeated and the students sound out the words
along with the puppets. More than a hundred such vignettes illustrate sound blending strategies from simple CVC words to multi-syllable words. The average puppet skit is about two minutes long.

**Word Plays:** Live action video skits dramatize important vocabulary concepts from the Success for All beginning reading texts. These skits are particularly designed to help English language learners build the specific vocabulary for the books they will be reading. For example, when children are about to read a story about China, they first see a skit that introduces words such as “chopsticks,” “fireworks,” “beautiful,” and “ugly,” all of which are central to the story. In a review of the key words at the end of each skit, the students say the words along with the narrator. The average Word Play is about three minutes long.

**Between the Lions:** Puppet skits and animations from the award-winning PBS program help teach phonemic awareness, sound/symbol correspondence, and sound blending. Between the Lions segments are 1-3 minutes long.

The multimedia content was designed to be beneficial to all children, but particularly for children whose first language is not English. Embedded multimedia takes the idea of linking visual and auditory information a step further, giving teachers tools they can use to constantly reinforce their own lessons and to make sure that all children have strong visual images to reinforce their learning of letter sounds, sound blending, and vocabulary.
There is considerable evidence to support the idea that multimedia material makes content more memorable and comprehensible for students in general (Kozma, 1991; Kamil et al., 2000; Mayer, 2001). Theories of cognitive load (e.g., Mayer & Moreno, 2003) hypothesize that linked print and auditory content, by engaging different parts of the brain, reduce cognitive load for a given amount of content to be learned. For English language learners, this capacity to link visual and auditory content is particularly important, as these students are particularly likely to need to be able to quickly relate vocabulary and other auditory and print content to linked pictures (Kamil et al., 2000). For example, Neuman & Koskinen (1992) built on this idea by using captioned television to help English language learners learn key vocabulary and comprehension skills. Video and DVD have been used successfully in many studies to increase the language learning of ELLs (Parker, 2005; Zhao, 2003; Salaberry, 2001).

Research on Reading Reels. The Reading Reels multimedia content was evaluated in a year-long randomized clinical trial in inner-city Hartford, CT (Chambers et al., 2004). In this study, ten majority-Hispanic schools were randomly assigned to implement the Success for All beginning reading program either with or without the embedded multimedia components. The reading achievement of the first graders in the multimedia-enhanced program performed significantly better than the control students on the Woodcock Word Attack scale, controlling for pretests, in analyses using hierarchical linear modeling (HLM).
The effect size was quite substantial, averaging ES=+0.47 at the individual student level.

**Other Program Enhancements for Hispanic Students.** While the Chambers et al. (2004) study established the effectiveness of the embedded multimedia program elements, there were many additional enhancements to instruction for ELLs that were introduced in the Success for All beginning reading program. These were as follows.

**ESL Boxes.** The Reading Roots teacher’s manuals contain additional, optional language development material located in dotted boxes. The material in these boxes gives teachers additional strategies to ensure that all students understand the story concepts and key vocabulary. It also contains follow-up comprehension questions for students at lower levels of language proficiency, so even students who are not yet fluent in English can participate by responding to questions about the text.

**ESL Strategy Icons:** Icons appear in the left-hand margin of the lessons in the teacher’s manual and at the bottom of each page of the teacher’s version of the Shared Stories (beginning reading texts). Each icon represents a research-based teaching strategy that teachers use to help their ELL students understand words or concepts throughout the lesson. These are as follows.

- **Pantomime.** The teacher demonstrates a word or idea by acting it out for the students to teach vocabulary.
• **Total Physical Response (TPR).** The teacher directs the students to demonstrate a word or an idea by acting it out and saying the word(s) associated with the action. Research shows that when students combine movement with a word, it increases their ability to retain vocabulary (Calderón, 2001).

• **Realia.** Realia are actual objects or models shown to the class to illustrate vocabulary from the stories. For example, when the students are reading a story about fishing, the teacher may use a fishing rod and a net to demonstrate how they work. Using real objects improves the students’ ability to retain the vocabulary words.

• **Picture Cards.** Sometimes realia are not available or practical for the purposes of demonstration. For example, an iceberg would be impossible to bring to class. Detailed and colorfully illustrated picture cards can fulfill the same role as the actual objects. Cards illustrating important concepts in the Shared Stories are provided as well.

• **Pointing.** Often the best explanation of a word or a concept in a story is through the book’s illustrations. By carefully selecting the words and concepts that are important to understanding the story’s theme and then pointing to those illustrated objects in the book and
repeating the vocabulary words, teachers help the students learn and retain new words while they enjoy the story.

**Key Cards.** These mnemonic picture cards show an illustration in the shape of each grapheme, to helps students make quick associations between letters and sounds. Students learn the picture name (for example, “apple”), then learn the initial sound of the word, in this case, (/a/). The Key Cards are used to introduce new sounds in the daily lessons; they are also reviewed at the beginning of each lesson to help students remember previously learned sounds.

**Partner Practice Booklets.** Students use these booklets to review previously learned letter sounds, practice new ones, and read words. Students work with partners and help each other master reading skills and strategies, providing the individual repetition and feedback that is essential for many ELLs.

**Phonics Picture Cards.** These illustrated cards help students hear specific letters sounds. The cards are used every day so that students can listen for specific sounds in a variety of contexts. The cards also build students’ vocabulary.

**Language Development Cards.** Colorful cards illustrate vocabulary and concepts from the Shared Stories, increasing the comprehension for ELLs.

**Purpose of the Study.** This study was undertaken to evaluate the enhanced Success for All beginning reading model for Hispanic students. The Chambers et al. (2004) experiment established the effectiveness of the embedded multimedia components over and above the basic Success for All beginning reading program,
but there remained a need to evaluate the effectiveness of the entire enhanced model as compared to traditional instruction. Although the theory of action underlying the experimental intervention related to English language learners rather than to all Hispanic students, we were not able to obtain ELL status information from some of the schools, and therefore focused the research on Hispanic students, a high proportion of whom were known to be ELLs. The present article reports the findings of this evaluation.

**Method**

**Sample**

The experimental sample consisted of 261 Hispanic kindergarten and 316 Hispanic first grade children in four experimental and four matched control schools in various parts of the U.S. One pair was in Washington, DC; one was in Queens, New York City; one was in rural Arizona; and a school in urban Southern California was paired with a matched school in Chicago. Overall, the schools were very impoverished, averaging 78% qualifying for free lunch. They were well matched in overall percent of students with limited proficiency in English; 61% of the experimental students were Hispanic and 64% of the control students were Hispanic. The Hispanic children in the experimental and control schools were well matched on their Peabody Picture Vocabulary Test scores at pretest.
Four of the schools involved in the study (two experimental and two control) were part of the Randomized Evaluation of Success for All (Borman, Slavin, Cheung, Chamberlain, & Madden, 2005), a national study of 41 high-poverty schools randomly assigned to implement Success for All or control methods in grades K-1. The four schools were chosen based on their high language minority populations and their match with each other. These schools were assessed by a third-party evaluator, NORC at the University of Chicago. The remaining four matched schools were added specifically for this study, and were assessed by testers trained by the Success for All Foundation.

Measures

All children were individually tested on the Peabody Picture Vocabulary Test (PPVT) in Fall, 2002. In Spring, 2003, they were then posttested on four scales from the Woodcock Reading Mastery Test-Revised (WRMT-R): Letter Identification, Word Identification, Word Attack, and Passage Comprehension. The testers were recruited locally in each case and trained to a high degree of reliability. Each tester was required to attend a full-day training by two researchers who have extensive experience in the WRMT-R. After the training, these testers were sent to a school to do their practice testing with at least three students under the supervision of the researchers. In addition, researchers conducted periodic spot checks on all testers during the actual testing period to
ensure quality. Testers were not informed of the treatment assignments of the children.

Experimental Treatment

The enhanced Success for All program was implemented as described previously. Implementation fidelity was assessed by SFA trainers using the standard SFA process, which involves trainers making two classroom observations during the school year. Trainers completed Implementation Visit Reports which indicated that the program was adequately implemented in each site. Students were observed to be consistently engaged by the materials and interacted with the multimedia as intended.

Control Treatment

Control schools all used a variety of traditional basal reading programs. Some schools supplemented the basal instruction with remedial pullout small-group instruction. At least one program also ran an after-school program for two hours each day.

Analyses

Data for the Hispanic students were analyzed using analyses of covariance, combining across all experimental and control schools, separately by grade. PPVT pretests served as the covariate.
Results

The results, summarized in Table 3, show that the experimental group in each grade scored higher than the control group at pretest. After adjusting for the initial differences, the experimental group scored significantly higher than the control group in both grades on three of the four measures: Word ID, Word Attack, and Passage Comprehension. For kindergarten, the effect sizes for these three measures were +0.52, +0.27, and +0.30, respectively. For first grade, the effect sizes were +0.35, +0.53, and +0.29. No differences were found on the Letter ID subtest for either grade.

Table 3 Here

Discussion

The positive effects of the enhanced version of Success for All, incorporating embedded multimedia and other elements designed to build vocabulary, phonics, and comprehension, are consistent with results seen in previous studies of Success for All with Hispanic students and with students in general. As in earlier studies (Slavin & Madden, 2001), the effects for kindergartners and first graders were strongest on word attack and word identification; in past studies, K-1 effects on these decoding measures grew into broader impacts on comprehension measures in second grade and beyond. The
positive effect on passage comprehension is smaller than that on the decoding measures, but is important as an early indicator.

Because the experimental treatment was an enhancement of Success for All with embedded multimedia and other elements, it was impossible to assess the separate impacts of the enhancements. However, the Borman et al. (2003) meta-analysis demonstrated an average effect size of +0.20 for previous Success for All studies on reading achievement, and the current study found an average effect size of +0.30. The findings of the Chambers et al. (2004) study comparing SFA with and without embedded multimedia suggest that this factor likely contributed to the overall impact, but the other enhancements emphasizing vocabulary development may have also contributed to the effect.

As No Child Left Behind and other federal and state policies begin to demand success for all subgroups of children, the achievement of Hispanic students is taking on great importance. Thousands of schools cannot meet their adequate yearly progress goals unless their Hispanic students are achieving. More importantly, American society cannot achieve equal opportunity for all if its schools do not succeed with these children.
References


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Success for All is a schoolwide program for students in grades pre-K to five which organizes resources to attempt to ensure that virtually every student will read at grade level by the third grade and that no student will be allowed to “fall between the cracks.” The main elements of the beginning reading program are as follows:

Table 1

<table>
<thead>
<tr>
<th>Major Elements of the Success for All Beginning Reading Program</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A Schoolwide Curriculum.</strong> During reading periods, students are regrouped across age lines so that each reading class contains students all at one reading level. Use of tutors as reading teachers during reading time reduces the size of most reading classes to about 20. The reading program in grades K-1 emphasizes language and comprehension skills, phonics, sound blending, and use of shared stories that students read to one another in pairs. The shared stories combine teacher-read material with phonetically regular student material to teach decoding and comprehension in the</td>
</tr>
<tr>
<td><strong>Family Support Team.</strong> A family support team works in each school to help support parents in ensuring the success of their children, focusing on parent education, parent involvement, attendance, and student behavior. This team is composed of existing or additional staff such as parent liaisons, social workers, counselors, and vice principals.</td>
</tr>
<tr>
<td><strong>Facilitator.</strong> A program facilitator works with teachers to help them implement the reading program, manages the quarterly assessments, assists the family support</td>
</tr>
</tbody>
</table>
context of meaningful, engaging stories.

**Quarterly Assessments.** Students in grades 1-6 are assessed every eight weeks to determine whether they are making adequate progress in reading. This information is used to suggest alternate teaching strategies in the regular classroom, changes in reading group placement, provision of tutoring services, or other means of meeting students’ needs.

team, makes sure that all staff are communicating with each other, and helps the staff as a whole make certain that every child is making adequate progress.
### Table 2

Demographic Characteristics of Experimental and Control Schools

<table>
<thead>
<tr>
<th>Condition</th>
<th>School</th>
<th>State</th>
<th>Enrollment</th>
<th>% White</th>
<th>% African American</th>
<th>% Hispanic</th>
<th>% ESL</th>
<th>% Free Lunch</th>
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<tbody>
<tr>
<td><strong>Matched Schools</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exp</td>
<td>Exp School 1</td>
<td>NY</td>
<td>510</td>
<td>11.0</td>
<td>6.5</td>
<td>50.9</td>
<td>9.3</td>
<td>79.7</td>
</tr>
<tr>
<td>Control</td>
<td>Cont. School 1</td>
<td>NY</td>
<td>688</td>
<td>4.0</td>
<td>5.3</td>
<td>58.0</td>
<td>10.3</td>
<td>76.0</td>
</tr>
<tr>
<td>Exp</td>
<td>Exp School 2</td>
<td>DC</td>
<td>332</td>
<td>0.9</td>
<td>34.0</td>
<td>64.0</td>
<td>n/a</td>
<td>90.0</td>
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<tr>
<td>Control</td>
<td>Cont. School 2</td>
<td>DC</td>
<td>382</td>
<td>0.9</td>
<td>64.0</td>
<td>32.0</td>
<td>n/a</td>
<td>88.0</td>
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<td><strong>Randomized Schools</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exp</td>
<td>Exp. School 3</td>
<td>AZ</td>
<td>642</td>
<td>19.6</td>
<td>9.6</td>
<td>40.1</td>
<td>37.5</td>
<td>51.7</td>
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<tr>
<td>Control</td>
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<td>AZ</td>
<td>757</td>
<td>19.4</td>
<td>1.0</td>
<td>67.7</td>
<td>50.0</td>
<td>100.0</td>
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<tr>
<td>Exp</td>
<td>Exp School 4</td>
<td>CA</td>
<td>589</td>
<td>6.0</td>
<td>3.0</td>
<td>88.0</td>
<td>39.0</td>
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<tr>
<td>Control</td>
<td>Cont. School 4</td>
<td>IL</td>
<td>616</td>
<td>0.5</td>
<td>0.4</td>
<td>98.6</td>
<td>54.0</td>
<td>95.7</td>
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Table 3: Reading Achievement Outcomes for Hispanic Students, Grades K-1

**Kindergarten Results**

<table>
<thead>
<tr>
<th>Test</th>
<th>Treatment</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Adj. Mean</th>
<th>ES</th>
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</thead>
<tbody>
<tr>
<td>PPVT (pretest)</td>
<td>SFA</td>
<td>125</td>
<td>81.69</td>
<td>15.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>136</td>
<td>72.50</td>
<td>18.27</td>
<td></td>
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<tr>
<td>Letter ID</td>
<td>SFA</td>
<td>125</td>
<td>429.04</td>
<td>12.27</td>
<td>426.69</td>
<td>+0.05</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>136</td>
<td>423.66</td>
<td>19.53</td>
<td>425.69</td>
<td></td>
</tr>
<tr>
<td>Word ID</td>
<td>SFA</td>
<td>125</td>
<td>385.16</td>
<td>24.22</td>
<td>382.58</td>
<td>+0.52**</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>136</td>
<td>366.87</td>
<td>25.70</td>
<td>369.24</td>
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<tr>
<td>Word Attack</td>
<td>SFA</td>
<td>125</td>
<td>464.80</td>
<td>18.16</td>
<td>462.76</td>
<td>+0.27*</td>
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<tr>
<td></td>
<td>Control</td>
<td>136</td>
<td>454.93</td>
<td>22.26</td>
<td>456.80</td>
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<td>Passage Comp</td>
<td>SFA</td>
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<td>431.21</td>
<td>15.88</td>
<td>429.45</td>
<td>+0.30*</td>
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<td>Control</td>
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<td>423.05</td>
<td>15.94</td>
<td>424.67</td>
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**First-Grade Results**

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<thead>
<tr>
<th>Test</th>
<th>Treatment</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Adj. Mean</th>
<th>ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPVT (pretest)</td>
<td>SFA</td>
<td>184</td>
<td>86.70</td>
<td>13.95</td>
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<td></td>
<td>Control</td>
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