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Closing the gap: Addressing the vocabulary needs of English-language learners in bilingual and mainstream classrooms

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The existence of a large and persistent gap between the reading performance of Anglo and Latino children on national assessments in the United States (Donahue, Finnegan, Lutkus, Allen, & Campbell, 2001) represents both an intellectual and a practical challenge. Practically, gaining access to the information taught in middle and secondary content area classes requires that all children exit the elementary

Closing the gap: Addressing the vocabulary needs of English-language learners in bilingual and mainstream classrooms

GAPS IN reading performance between Anglo and Latino children are associated with gaps in vocabulary knowledge. An intervention was designed to enhance fifth graders' academic vocabulary. The meanings of academically useful words were taught together with strategies for using information from context, from morphology, from knowledge about multiple meanings, and from cognates to infer word meaning. Among the principles underlying the intervention were that new words should be encountered in meaningful text, that native Spanish speakers should have access to the text's meaning through Spanish, that words should be encountered in varying contexts, and that word knowledge involves spelling, pronunciation, morphology, and syntax as well as depth of meaning. Fifth graders in the intervention group showed greater growth than the comparison group on knowledge of the words taught, on depth of vocabulary knowledge, on understanding multiple meanings, and on reading comprehension. The intervention effects were as large for the English-language learners (ELLs) as for the English-only speakers (EOs), though the ELLs scored lower on all pre- and posttest measures. The results show the feasibility of improving comprehension outcomes for students in mixed ELL–EO classes, by teaching word analysis and vocabulary learning strategies.

Cerrando la brecha: Acerca de las necesidades de vocabulario de aprendices de inglés en aulas bilingües y comunes

LAS DIFERENCIAS en el desempeño lector entre niños angloamericanos y latinos se asocian a brechas en el conocimiento del vocabulario. Se diseñó una intervención para mejorar el vocabulario académico de niños de quinto grado. Se enseñaron los significados de palabras académicamente útiles, junto con estrategias para usar información del contexto, de la morfología, del conocimiento de significados múltiples y de palabras emparentadas para inferir los significados. Entre los principios subyacentes a la intervención se propuso que las palabras nuevas debían encontrarse en textos significativos, que los hablantes nativos de español debían tener acceso al significado del texto a través de su lengua, que las palabras debían aparecer en contextos variados y que el conocimiento de las palabras incluye ortografía, pronunciación, morfología y sintaxis, así como significado en profundidad. Los niños de quinto grado del grupo de intervención mostraron un mayor crecimiento que el grupo de comparación en: conocimiento de las palabras enseñadas, profundidad de conocimiento del vocabulario, comprensión de significados múltiples y comprensión lectora. Los efectos de la intervención fueron tan grandes para los aprendices de inglés (ELL), como para los hablantes nativos de inglés (EO), aunque el grupo ELL obtuvo puntajes inferiores en todas las medidas pre y post test. Los resultados muestran la factibilidad de mejorar la comprensión de estudiantes en aulas mixtas ELL–EO, mediante la enseñanza de análisis de las palabras y estrategias de aprendizaje del vocabulario.

Schließen der Lücke: Ansprechen des Wortschatzbedarfs von Anfängern in der englischen Sprache in bi-lingualen und allgemeinen Klassenzimmern

LÜCKEN BEI der Leseleistung zwischen Anglo- und Latino-Kindern werden mit Wissenlücken im Wortschatz assoziiert. Ein Einwirken wurde darauf ausgerichtet, den so geschulten Wortschatz bei Schülern der fünften Klasse zu verbessern. Die Bedeutungen von theoretisch-akademisch dienlichen Wörtern wurden zusammen mit Strategien über die Anwendung von Informationen aus dem Textinhalt, der Morphologie, dem Wissen um die vielfältige Sinndeutung, und den Kognaten zum Ableiten der Wortbedeutung unterricht. Unter den der Intervention zugrundeliegenden Prinzipien galt es, daß neue Wörter innerhalb eines sinnverdeutlichenden Textes in Angriff genommen werden sollten, so daß die als Muttersprache spanisch Sprechenden Zugang zu Sinn und Bedeutung des Textes in spanisch haben sollten, daß Wörter in variierenden Kontexten angewandt werden sollten und daß die Wortbeherrschung, das Buchstabieren, die Aussprache, Morphologie und Syntax, sowie die tieferen Bedeutungen mit einbezogen sind. Fünftklässler in der Interventionensgruppe zeigten größere Fortschritte als ihre Vergleichsgruppe in Kenntnissen der unterrichteten Wörter, in der Gründlichkeit ihrer Vokabelbeherrschung, beim Erfassen von Vieldeutigkeiten, und ihrem Leseverständnis. Die Interventionsauswirkungen waren ebenso weitreichend bei Anfängern in der englischen Sprache (ELL) wie bei originär-englischen Muttersprachlern (EO), wobei jedoch die ELL-Werte bei allen Vor- und Nachtests geringer ausfielen. Die Resultate zeigten deutlich Möglichkeiten im Verbessern der Ergebnisse für Schüler in gemischten ELL–EO-Klassen auf, sowie beim Unterrichten von Wordanalyse und Vokabel-Lernstrategien.

Réduire l'écart : intervenir sur les besoins en vocabulaire anglais d'apprenants de classes bilingues et de classes d'intégration

LES ÉCARTS de réussite en lecture entre élèves anglophones et hispanophones vont de pair avec des écarts dans leur connaissance du vocabulaire. On a planifié une intervention en vue de développer le vocabulaire scolaire d'élèves de cinquième année. On a enseigné le sens de mots utiles dans le cadre scolaire en même temps que des stratégies pour utiliser l'information apportée par le contexte, la morphologie, la pluralité des sens et l'origine afin d'inférer le sens des mots. Un des principes sous-tendant l'intervention était que les mots nouveaux devaient être rencontrés dans un contexte signifiant, que les enfants de langue espagnole devaient avoir accès au sens du texte en passant par l'espagnol, et que la connaissance d'un mot implique l'orthographe, la prononciation, la morphologie et la syntaxe tout comme son sens profond. Les élèves de cinquième année du groupe d'intervention ont réalisé plus de progrès que ceux du groupe témoin en ce qui concerne la connaissance des mots enseignés, la connaissance profonde du vocabulaire, la compréhension de la pluralité des sens et la compréhension de la lecture. Les effets de l'intervention ont été aussi importants pour les élèves ayant l'anglais pour langue 2 que pour ceux dont c'est la langue maternelle, bien que les résultats des premiers aient été plus faibles à tous les tests, avant et après l'intervention. Les résultats montrent qu'il est possible d'améliorer les résultats en lecture des élèves dans des classes mixtes (anglais langue maternelle ou langue 2), en leur enseignant des stratégies d'analyse des mots et d'apprentissage du vocabulaire.

grades with good reading comprehension capacity. Without this capacity, access to grade-appropriate content knowledge, entry into challenging courses in secondary school, success on the tests increasingly being required for promotion and graduation, and entry into tertiary education are all unlikely. Thus, closing this gap has high priority if U.S. education is to fulfill its goal of reducing inequities in access to economic opportunities that are contingent upon successful school achievement. Yet as recently as 2000 García noted that "few researchers have developed programs to improve students' second-language reading vocabulary" (p. 826).

The intellectual challenge posed by the gap involves isolating its root cause. The problem is one of too many rather than too few likely explanations. Considerable previous work suggests that one major determinant of poor reading comprehension, for Latino children (García, 1991; Nagy, 1997; Verhoeven, 1990) and for other lagging readers (National Institute of Child Health and Human Development, 2000), is low vocabulary. Lack of knowledge of the middle- and lower frequency "academic" words encountered in middle and secondary school texts impedes comprehension of those texts, which in turn impedes the natural process of learning new word meanings from exposure during reading (Stanovich, 1986). It is widely known that vocabulary relates to reading comprehension scores (Freebody & Anderson, 1983), and the presumption is that the effect is reciprocal—greater vocabulary knowledge makes comprehension easier, while wider reading generates larger vocabularies. One goal of the current study was to test whether improvements in vocabulary related to improvements in reading comprehension for English-language learners (ELLs).

Review of literature on vocabulary instruction and learning

Attempts to address the practical challenge of improving reading comprehension by explicitly teaching vocabulary have met with mixed success (Stahl & Fairbanks, 1986), in part because of the difficulty of generating a large instructional impact on vocabulary knowledge. Successful vocabulary curricula increase children's word knowledge by approximately 300 words a year (Stahl & Fairbanks). While such gains are not unimportant, they are hardly sufficient to close the gap between the vocabulary skills of lower socioeconomic status (SES) and middle SES children, which is estimated to be as high as 6,000 words at school entry (Hart & Risley, 1995). Addressing the vocabulary deficits of second-language learners, who may arrive in U.S. classrooms in second or third grade with no English vocabulary at all, is even more challenging. While such children may appear to acquire oral English vocabulary quickly, they can remain well behind children who have been exposed to oral and literate English since birth, unless provided with skills and strategies for rapid learning of the words they will encounter in their reading—words that may be used rarely in spoken language.

For avid readers, much vocabulary acquisition occurs incidentally as a result of encountering unfamiliar words while reading (Sternberg, 1987). Nonetheless, the probability of acquiring an unknown word incidentally through reading is only about 15% (Swanborn & de Glopper, 1999), which means the word would need to be encountered eight times to be learned with high probability. The probability of learning any word at a first encounter is lower for younger readers, for more difficult texts, and probably for students who have had no training in deriving meanings for unknown words (Fukkink & de Glopper, 1998; Kuhn & Stahl, 1998). Thus, incidental vocabulary learning is not a reliable procedure for promoting vocabulary growth.

Relying on incidental vocabulary learning is even more problematic for ELLs than for their English-only (EO) counterparts. ELLs are less able to use context to disambiguate the meaning of unfamiliar words because a higher proportion of words in text is likely to be unknown to them. Furthermore, because they lack full command of the English grammar, they are less able to exploit linguistic cues to word meaning as an EO speaker could (Stoller & Grabe, 1995). Reading texts in which more than 2% of the words are unfamiliar blocks comprehension and novel word learning (Carver, 1994). As is suggested in many of the chapters in Huckin, Haynes, and Coady (1995), which explore the relationship between reading and vocabulary development in a second language, vocabulary instruction for ELLs would ideally combine direct teaching of words with incidental learning fostered by multiple opportunities to encounter novel words in authentic and motivating texts.

In addition to direct instruction and incidental learning, evidence suggests the desirability of enhancing the value of incidental exposure by teaching ELLs strategies for inferring the meanings of newly encountered, unfamiliar words. Many such strategies exist and are used with ease by high-level readers. They include using contextual cues, morphological information, and cognate knowledge, as well as

using aids such as dictionaries and glossaries (García & Nagy, 1993; Jiménez, García, & Pearson, 1996; Nagy, García, Durgunoglu, & Hancin-Bhatt, 1993; Nation, 2001). Beck, McKeown, and Omanson (1987) demonstrated that it was possible to teach EO children the use of strategies for inferring word meaning, while at the same time enriching vocabularies with direct teaching. Nagy et al. as well as García and Nagy have presented results suggesting the efficacy of teaching native Spanish speakers explicitly about the value of cognates and of morphological relationships between Spanish and English. But no one has, to our knowledge, previously tested the impact of an English vocabulary enrichment intervention that combined direct word instruction with instruction in word-learning strategies on the word knowledge and reading comprehension abilities of ELLs. That was our major goal in the study presented here.

Theoretical framework for designing a vocabulary intervention

What is involved in learning words?

The intervention we tested and the measures we selected to assess its impact reflect our model of the complexity of word meaning. "Knowing a word" implies knowing many things about the word—its literal meaning; its various connotations; the sorts of syntactic constructions into which it enters; the morphological options it offers; and a rich array of semantic associates, including synonyms, antonyms, hypernyms, hyponyms, and words with closely related yet contrasting meanings, as well as its capacity for polysemy (see Bloom, 2002; Nagy & Scott, 2000, for reviews). Learning a word requires learning (over a series of encounters) these various aspects of its meaning, and inferring word meaning from context can also require being alert to these various aspects; a first encounter with a word might, for example, provide information about syntactic word class and some very general specification of meaning domain, whereas subsequent encounters will expand the semantic specification and may lead to discovery of polysemous possibilities. Thus, subsequent encounters build *depth* of word knowledge, which is as important in using words as is the more commonly assessed *breadth*. Second-language speakers have been shown to be lacking depth of word knowledge, even for frequently occurring words (Verhallen & Schoonen, 1993). Sensitivity on the part of learners to issues of depth (e.g., recognition that polysemy exists) may ease the process of reading comprehension.

How can one best promote word learning?

We present here findings from the implementation of a 15-week intervention focused on teaching useful words and word-learning strategies. The design of the intervention was related to practices shown to be effective in previous work (e.g., Beck et al., 1987; Blachowicz & Fisher, 1996; Graves, 2000; Huckin et al., 1995; Nagy, 1988; Nation, 2001; National Institute of Child Health and Human Development, 2000; Stahl, 1986) that together dictated our answers to key questions about which words to teach, how often to present them, what aspects of word knowledge to focus on, and what instructional activities to use.

(a) *Which words?* As recommended by Beck et al. (1987), the intervention focused on general-purpose academic words likely to be encountered across a variety of content areas, rather than words specific to a particular subject matter. In addition, we followed Beck et al.'s method by choosing words of middle-tier frequency that had depth potential and morphological and cognate affordances.

(b) *How to introduce the words?* We chose words from texts determined to be appropriate for and of interest to the learners, building on the evidence that engaging texts promote reading comprehension (Guthrie & Wigfield, 2000) and that encountering words in meaningful contexts promotes memory for them (Nation, 2001). We also selected texts that were available in Spanish as well as English, to facilitate engagement for the ELLs and to promote their comprehension of the context in which the words were introduced in English. (See list of words and activities taught in Appendix A and B and a summary of a week's worth of sample lessons in Appendix C.) Additional examples are presented in Lively, August, Snow, and Carlo (2003).

(c) *How often?* Target words should be encountered several times, in diverse contexts, and with varying tasks required of learners (Beck et al., 1987). By designing the intervention around texts and themes, we created a situation in which target words could be recycled in later lessons and would appear naturally with high frequency in the texts being read.

(d) *What aspects of word knowledge to focus on?* Our instruction focused on depth of meaning, polysemy, morphological structure, and cross-language relationships, as well as spelling and pronunciation, of the target words. The instruction was designed to provide children with general-purpose strategies for acquiring word meaning while at the same time teaching specific word meanings. Following Graves (2000) and others, we chose to promote strategic knowledge at some cost to the time available for building vocabulary size, because previous work (e.g., Stahl & Fairbanks, 1986) had shown the futility of trying to teach large numbers of words directly.

(e) *What instructional techniques?* The intervention relied on explicit instruction in using context to infer word meaning (Graves, 2000; Nation 2001), in depth of word meaning, in the possibility of polysemy, in performing morphological analysis, in glossary use, and in cognate use. (In all glossaries we included the Spanish translation for the meaning used in the text as well as the English definition. We also alerted students to the presence of polysemous words by including all definitions for the word and highlighting the definition used in the text.)

Collaborative work in groups that included both EOs and ELLs provided practice in English for ELLs and made knowledge about cognates available to EOs. Students were sensitized to the task of vocabulary acquisition using techniques like Word Wizard (see Beck, McKeown, & Kucan, 2002, for description of Word Wizard) in order to enhance their utilization of opportunities to extend word knowledge in nonlesson contexts. Teachers were provided with information about the principles of vocabulary acquisition as well as specific strategies to enhance their use of effective vocabulary teaching procedures outside the vocabulary lessons.

Method

Participants

The participants were 254 bilingual and monolingual children from nine fifth-grade classrooms in four schools in California, Virginia, and Massachusetts. The California site included two schools serving largely working class Mexican American children, either in bilingual or in mainstream programs. The Massachusetts site served working class, mostly Puerto Rican and Dominican students, again in either bilingual or mainstream classrooms, within a school where many of the teachers and administrators were bilinguals. The Virginia site was a magnet, English-medium school that served mainly working class Spanish speakers from the Caribbean and from Central America, together with native speakers of many other languages and middle class English-only speakers attracted by its excellent academic programs. While the variations across the three sites created some complexity in implementing the intervention and in interpreting the findings, they also assure us that any intervention effects found are quite robust.

One hundred forty-two of the student participants were ELLs, and 112 were EOs. Ninety-four of the ELLs and 75 of EOs were in the intervention condition. The remaining students (48 ELLs and 37 EOs) were in comparison classrooms.

Design

The study employed a quasi-experimental design in which classrooms at each site were randomly assigned to the treatment and comparison conditions. This procedure resulted in the assignment of 10 classes to the treatment (3 in California, 4 in Virginia, and 3 in Massachusetts) while 6 classrooms served as comparisons. Students in the comparison classrooms did not receive special instruction other than that normally included in the school curriculum, though their teachers did participate as members of school teams in professional development activities focused on vocabulary teaching two years prior to the introduction of the intervention.

Pilot

The intervention activities were piloted in the same three sites the year before the intervention itself was implemented. Over 200 Spanish-speaking ELLs and EO students participated in the pilot along with 12 teachers. This pilot was designed to enable us to refine the teaching activities and the student assessments. On the basis of the pilot we made decisions about complexity, genre, and variety of texts to use, and we decided that teachers implementing the intervention would benefit from ongoing professional development focused on the intervention.

Testing procedure

Fifth-grade students in the intervention and comparison classrooms were tested in the fall and the spring of the academic year on a series of tests designed to reflect the skills the curriculum taught (forming deeper representations of word knowledge, understanding polysemy, morphological analysis, inferring word meaning from context) as well as reading comprehension. Bilingual graduate research assistants administered all tests (see the Measures section). Because of various scheduling difficulties, not all students took all tests.

Intervention procedure

The intervention consisted of 15 weeks of instruction. Ten to 12 target words were introduced at the beginning of each week. Instruction was delivered for 30–45 minutes four days a week. Every fifth

week was devoted to review of the previous four weeks' target words.

The intervention was organized around the topic of immigration; the curriculum drew readings from newspaper articles, diaries, firsthand documentation of the immigrant experience, as well as historical and fictional accounts, building each week's five-day sequence of lessons around a single text unit. The lessons included some homework assignments and a weekly review test. The Spanish speakers were given the text (in both written and audiotaped versions) to preview in Spanish, on Monday, before its introduction in English on Tuesday. On Tuesday, whole-group lessons involved presentation of the English text and target words, followed by an activity that involved identifying target words in the text whose meanings could be inferred by context. Wednesday lessons involved work in heterogeneous language groups of four to six in which the children completed two types of cloze tasks with the target words. The first cloze task always involved sentence contexts that were consistent with the theme of the instructional text. A second cloze activity involved sentences that employed the target words in contexts that were distant in theme from the instructional text, being designed to help students understand and use related meanings for the target words, and in the process develop a sense that most words are polysemous. The Thursday lesson involved activities of the sort recommended by Beck et al. (2002) to promote depth of word knowledge (e.g., word association tasks, synonym/antonym tasks, semantic feature analysis). Again children typically completed these activities in small groups. On Fridays the activities varied in focus, as can be seen in Appendix B. During some weeks, Friday activities promoted analysis of root words and derivational affixes. In other weeks Friday activities were designed to promote awareness of word polysemy and cognates. These activities were designed to promote word analysis capacities in general, not specifically to reinforce learning of the target words.

The curriculum materials provided to the teachers included detailed lesson plans and quasi-scripted lesson guides, as well as overhead transparencies, worksheets, homework assignments, and all necessary reading materials. These materials and the words to be taught were previewed in biweekly Teacher Learning Community meetings facilitated by a researcher at each site. At these meetings, practices that had worked well in previous lessons and aspects of the curriculum that had been problematic were discussed. These meetings were meant to provide support to the teachers throughout the implementation of the curriculum and information to the researchers about aspects of the curriculum that were working well or not. The curriculum itself was not modified as a result of the meetings with the treatment teachers.

Fidelity of treatment

Three lessons (one from week 4, one from week 9, and one from week 13 of the curriculum sequence) were filmed in each intervention classroom to obtain data on the fidelity of implementation of the treatment at each site. The tapes were subsequently coded to reflect the degree to which the teacher correctly implemented the key elements of the lesson plan; for each key element, the teacher was rated as having omitted it, implemented it incompletely or incorrectly, implemented it fully, or enhanced it (White, 2000). These ratings achieved acceptable levels of reliability (Kendall coefficient of concordance = .70). They were summed per lesson per teacher to provide a single score indicating fidelity of implementation. Six of the nine teachers implemented over 70% of key lesson elements over the three weeklong observations, while one achieved only 35% implementation and the other two 50–60%. The three teachers with the highest fidelity enhanced the implementation with additional elements that were consistent with its design, and none of the six high implementers committed any errors of implementation. In fact, the poorest implementers committed errors in implementing only 4% of the elements; omission of elements was their major failing.

Measures

The measures used in the study are described below. Table 1 includes sample items and relevant psychometric information about each measure.

PPVT–R

Students were tested individually on the L form (pretest) and M form (posttest) of the Peabody Picture Vocabulary Test Revised (PPVT–R). Children who had been tested on PPVT–R in the spring of fourth grade were not retested until spring of fifth grade. Students new to the study were tested in both fall and spring.

Polysemy production

The students' task on the polysemy production test was to generate as many sentences as possible

TABLE 1
PROPERTIES OF FIFTH-GRADE ASSESSMENTS

	Mastery	Word Association	Polysemy	Cloze	Morphology
Total items	36	20	6	18	27
Possible range	0–36	0–54	0–54	0–18	0–135
Coefficient alpha	.83	.94	.64	.73	.94
Sample items	Rigid: (a) soft and smooth, (b) approved by someone in authority, (c) valuable, (d) stiff and difficult to bend	Policy: Uniform, decisions, plan, action, insurance, congress	Write a sentence for each meaning you know for pitch.	With time things got better and many settlers became ____. (a) anxious, (b) sick, (c) open, (d) prosperous	Election: How many people did they ____?

conveying the different meanings of the polysemous words. The words in the fifth-grade polysemy task were *ring*, *place*, *settle*, *pitch*, *back*, and *check*. The students' correct responses were awarded points on the basis of the frequency of the response in the response pool. Common responses were awarded one point (e.g., "Don't bug me" or "She left a ring in the tub"). Two points were awarded to responses in the intermediate range of frequency (e.g., "My mom drives a Volkswagen bug" or "The phone has a funny ring"). Three points were awarded to the correct but most infrequent responses in the pool (e.g., "There was a bug in the program" or "The boxer left the ring").

Reading comprehension

Reading comprehension was assessed with multiple-choice cloze passages with content words deleted at random. Students read three stories with six cloze items per story. Ten of the deleted words were taught in the intervention.

Word mastery

The mastery test was designed to determine if the vocabulary words directly taught were successfully learned. It consisted of 36 target word multiple-choice items. Each target word was followed by four short definitions. Students were asked to select the definition that best described the word.

Word Association task

This task, developed originally by Schoonen and Verhallen (1998), measured depth of word knowledge by tapping into children's knowledge of paradigmatic and syntagmatic word relations. The task consisted of 20 target words, half of which were included in the curriculum. Each of the target words appeared in the center of a page, with six other words printed around the periphery. Students were asked to draw lines from the target word to the three peripheral words most closely connected to it. Specifically, students were asked to pick three of the words that "always go with the word in the middle." For example, the word *debate* has immutable associations to the words *rival*, *discussion*, and *opinion* but only circumstantial associations to the words *president*, *television*, and *fight*.

Morphology

Children's knowledge of English morphology was assessed with a paper and pencil adaptation of Carlisle's (1988) Extract-the-Base task. Our task consisted of 27 items (fewer than a third were intervention words) that required that the student provide the base form of a derived word. Students heard the derived word (e.g., *discussion*) followed by a lean sentence context (e.g., What did he want to _____?) and were asked to provide the word that fit in the sentence (i.e., *discuss*). The items varied in the transparency of relationship between the derived and base forms. Some items involved no phonological or orthographic change (e.g., *remark-remarkable*); some involved a phonological change but no orthographic change (e.g., *nation-national*); some involved an orthographic change but no phonological change (e.g., *furious-fury*); and some involved both changes (e.g., *migration-migrate*). The children's spelling of the base words often did not conform to spelling conventions of English. The following coding scheme informed by Bear, Invernizzi, Templeton, and Johnston's (1996) spelling rubrics was used to score the students' responses.

5 points: Correct base, correctly spelled: *guide*

4 points: Correct morpheme boundaries and reasonable spelling with all phonemes represented: *assist*, *emty*, *cantinew*

3 points: Correct morpheme boundaries, more deviant spelling with all phonemes represented: *viori*, *oqupie*

2 points: Derived form, but base word preserved/visible and more or less correctly spelled: *elected*, *assisted*

1 point: Some of the target sounds represented, but basically the wrong word: *sends* for *sense*

0 points: Completely incorrect. This category includes reproducing the stimulus word (*discussion*) or providing words that are morphologically unrelated to the stimulus word (*hire* for *employ*)

Results

Effect of the intervention

A multivariate analysis of variance performed on the six dependent measures for which scores were available (Task: Mastery, Word Association, Polysemy, Cloze, Morphology) in both fall and spring (Time), and incorporating as predictor variables site, language status, and condition, revealed overall between-subjects effects attributable to site and to language status. Tests of within-subjects effects showed significant gains over time, and a significant interaction between gain over time and condition, as well as a three-way interaction between gain over time, site, and condition (see Table 2).

TABLE 2
RESULTS OF MANOVA ON FIFTH-GRADE OUTCOMES

Effect	*F*	*df*	*MSE*	*p*
Time of test	104.99	1,82	47.39	***
Time × condition	7.92	1,82	47.39	**
Time × condition × school	3.85	2,82	47.39	**
Task	434.53	1,82	351.15	***
Task × language	30.94	1,82	351.15	***
Task × school	4.03	3,82	351.15	*
Task × language × school	3.76	3,82	351.15	*
Time × task	44.55	1,82	37.35	***
School	4.65	3,82	727.07	**
Language	56.74	1,82	727.07	***
School × language	3.89	3,82	727.07	*

*$p < .05$; **$p < .01$; ***$p < .001$.

These results confirmed the justifiability of pursuing analysis with each of the outcome variables individually (see Table 3) following normal practice (Myers & Well, 1991).

While a conservative approach to the follow-up analyses would correct for Type I error rate per family of contrast, we chose to report uncorrected effects given the unavailability of data about vocabulary intervention effects in this population. The reader should note that effects for which the probability level is larger than .01 would not meet the more stringent standard based on the Bonferroni adjustment.

PPVT–R, a measure designed to reflect individual differences but to be insensitive to curricular influences, was significantly higher for the EO students and showed significant gains from fall to spring. It also differed significantly across the three sites, with the highest scores in Virginia and the lowest in Massachusetts. It did not, however, reveal any influence of treatment; the treatment group by gains interaction term was not significant, nor were any other interactions with gains detected.

We analyzed the remaining five measures, Mastery, Polysemy, Word Association, Cloze, and Morphology, covarying PPVT–R to reduce effects associated with differences in initial English proficiency and with site differences in populations being served. These five measures showed a gradient of effects. Mastery, Word Association, Polysemy, and Cloze all showed the same general pattern of results demonstrating impact of the intervention: The intervention group showed greater gain in the course of the school year than the comparison group. Mastery, Word Association, and Polysemy also showed an interaction of gain over time with site, reflecting either differential effectiveness of the implementation across the various sites or differential susceptibility to the impact in the various sites (see Figures 1 through 5).

Morphology showed only marginally significantly differential gains as a function of condition or site. Morphology, Mastery, and Word Association all showed a three-way interaction, indicating larger gains for the intervention than the comparison group in some sites (see Figures 4a and 4b). These interactions with site could reflect either population or implementation differences.

Main effects of language group were found for Word Association and Polysemy, reflecting the generally higher performance of native English speakers. Main effects for site were found for Morphology, Mastery, and Word Association. The site differences may reflect the distinctive demographics of the three sites, differing recruitment policies for the schools involved, or quality of education delivered.

TABLE 3
RESULTS OF ANOVAS ON EACH OUTCOME MEASURE ADMINISTERED IN FIFTH GRADE

		Mastery	Word Association	Polysemy	Cloze	Morphology
Time of test						
	F	**7.64	ns	ns	ns	**11.46
	df	(1,218)				(1,217)
	MSE	9.09				94.83
	η^2	.03				.05
Time by PPVT–R						
	F	ns	*4.71	ns	*4.73	ns
	df		(1,217)		(1,213)	
	MSE		24.82		3.72	
	η^2		.02		.02	
Time × condition						
	F	***113.28	**11.24	**11.23	***17.84	ns
	df	(1,218)	(1,217)	(1,212)	(1,213)	
	MSE	9.09	24.82	3.23	3.71	
	η^2	.34	.05	.05	.08	
Time × school						
	F	886.38	***5.19	*3.80	ns	ns
	df	(2,218)	(2,217)	(2,212)		
	MSE	9.09	24.82	3.23		
	η^2	.06	.05	.04		
Time × condition × school						
	F	***11.46	*3.48	ns	ns	***9.37
	df	(2,218)	(2,217)			(2,217)
	MSE	9.09	24.82			94.84
	η^2	.10	.03			.08
Time × language × school						
	F	ns	ns	ns	ns	*4.44
	df					(2,217)
	MSE					94.84
	η^2					.04
PPVT–R						
	F	***198.49	***78.62	***49.42	***137.12	***119.37
	df	(1,218)	(1,217)	(1,212)	(1,213)	(1,217)
	MSE	24.87	37.85	11.49	8.80	849.53
	η^2	.48	.27	.19	.39	.36
Condition						
	F	***52.22	ns	ns	*4.91	ns
	df	(1,218)			(1,213)	
	MSE	24.87			8.80	
	η^2	.19			.02	
Language						
	F	ns	**10.24	***13.05	ns	ns
	df		(1,217)	(1,212)		
	MSE		37.85	11.49		
	η^2		.05	.06		
School						
	F	***8.59	ns	ns	***12.56	**7.01
	df	(2,218)			(2,213)	(2,217)
	MSE	24.87			8.80	849.53
	η^2	.07			.11	.06
Language × condition						
	F	ns	ns	**7.36	ns	ns
	df			(1,212)		
	MSE			11.49		
	η^2			.03		
School × condition						
	F	**5.83	**5.05	ns	ns	**4.90
	df	(2,218)	(2,217)			(2,217)
	MSE	24.87	37.85			849.53
	η^2	.05	.04			.04

*$p < .05$; **$p < .01$; ***$p < .001$.

FIGURE 1A
AVERAGE ELL FIFTH-GRADE FALL AND SPRING PERFORMANCE ON THE MASTERY TASK AS A FUNCTION OF SITE AND CONDITION

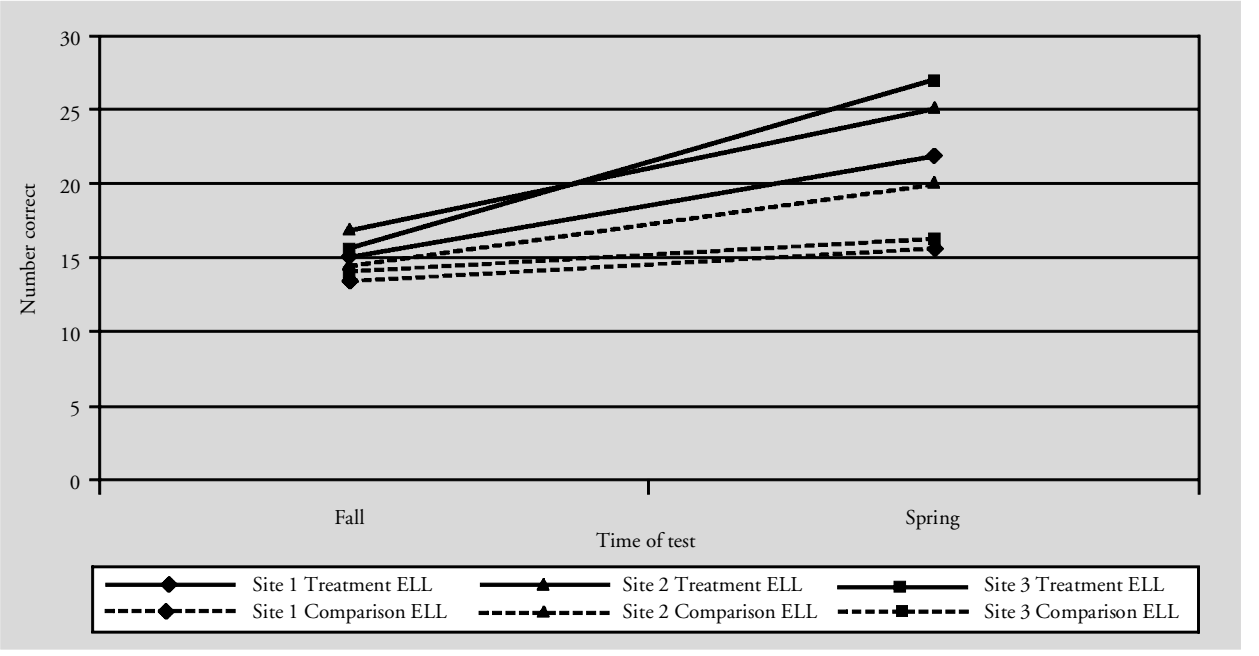


FIGURE 1B
AVERAGE EO FIFTH-GRADE FALL AND SPRING PERFORMANCE ON THE MASTERY TASK AS A FUNCTION OF SITE AND CONDITION

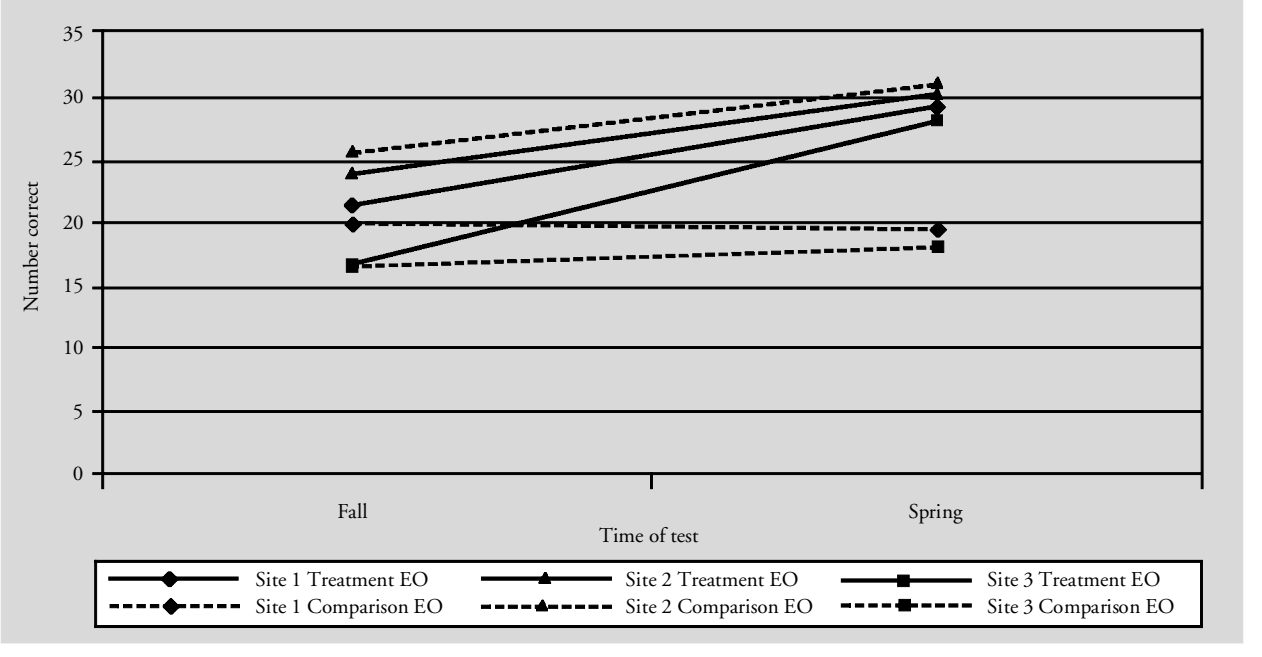


FIGURE 2A
AVERAGE ELL FIFTH-GRADE FALL AND SPRING PERFORMANCE ON THE CLOZE TASK AS A FUNCTION OF SITE AND CONDITION

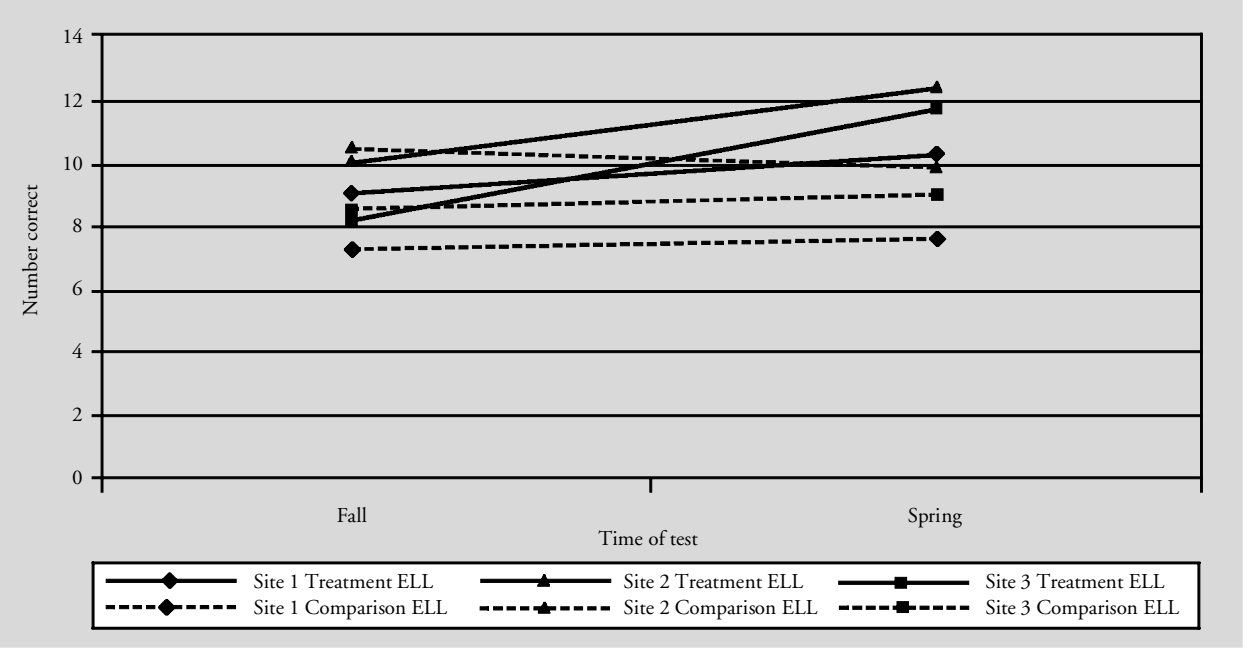


FIGURE 2B
AVERAGE EO FIFTH-GRADE FALL AND SPRING PERFORMANCE ON THE CLOZE TASK AS A FUNCTION OF SITE AND CONDITION

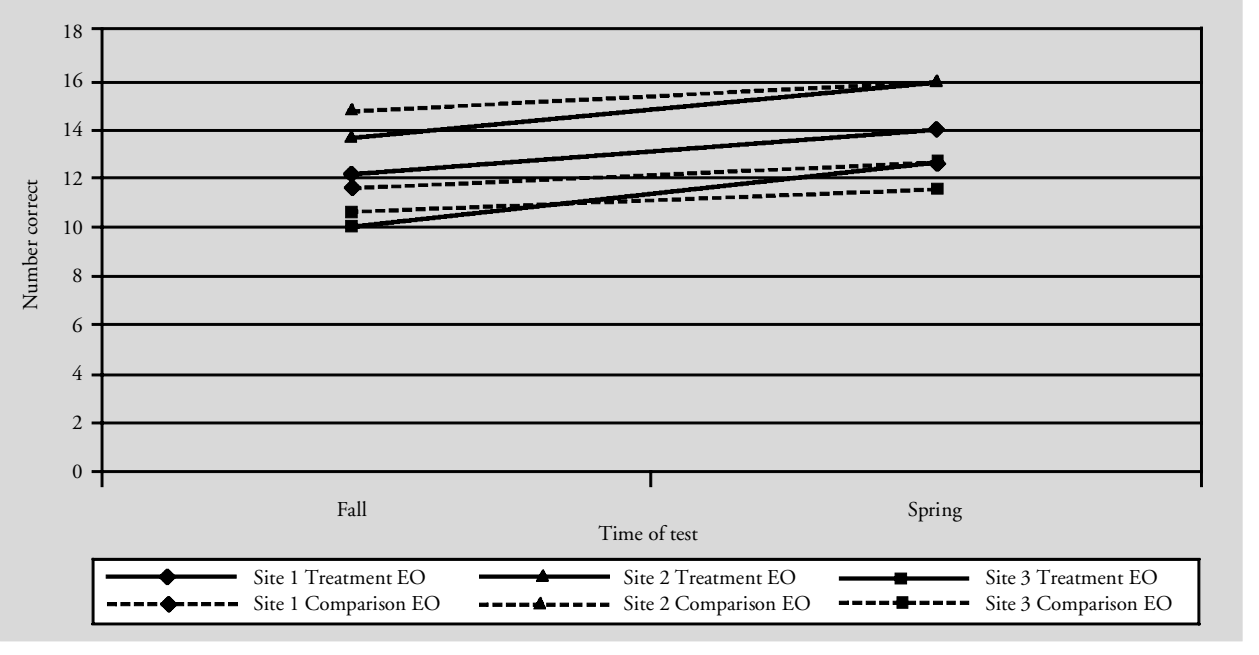


FIGURE 3A
AVERAGE ELL FIFTH-GRADE FALL AND SPRING PERFORMANCE ON THE WORD ASSOCIATION TASK AS A FUNCTION OF SITE AND CONDITION

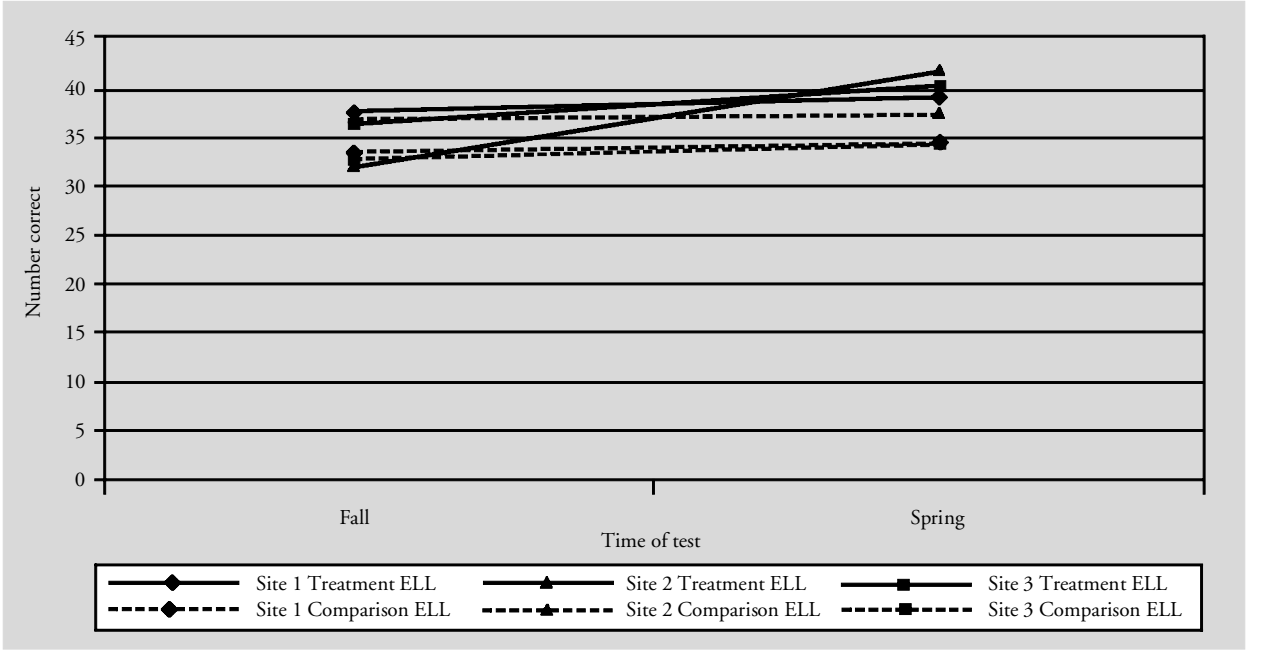


FIGURE 3B
AVERAGE EO FIFTH-GRADE FALL AND SPRING PERFORMANCE ON THE WORD ASSOCIATION TASK AS A FUNCTION OF SITE AND CONDITION

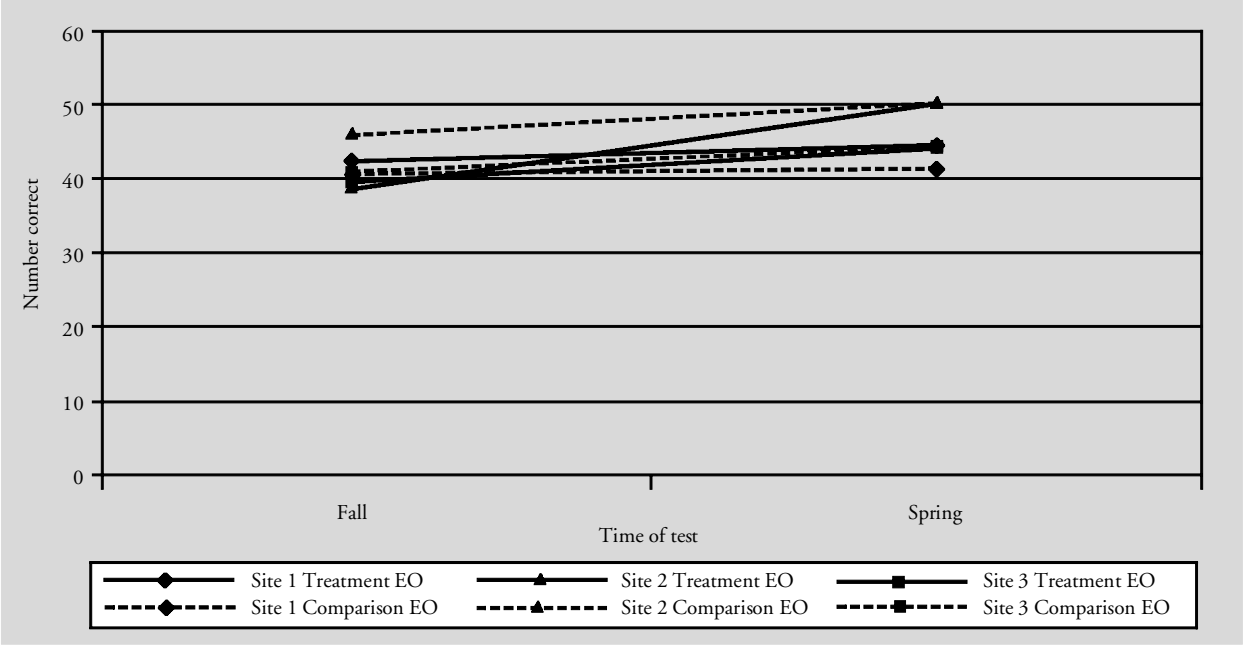


FIGURE 4A
AVERAGE ELL FIFTH-GRADE FALL AND SPRING PERFORMANCE ON THE MORPHOLOGY TASK AS A FUNCTION OF SITE AND CONDITION

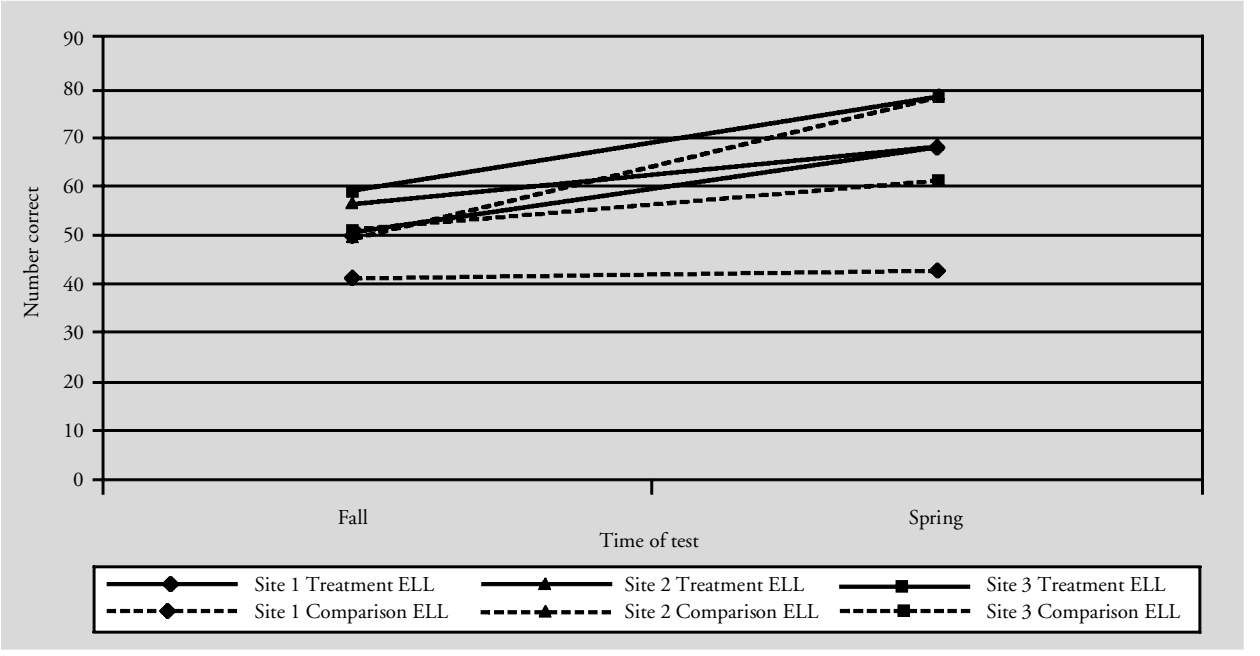


FIGURE 4B
AVERAGE EO FIFTH-GRADE FALL AND SPRING PERFORMANCE ON THE MORPHOLOGY TASK AS A FUNCTION OF SITE AND CONDITION

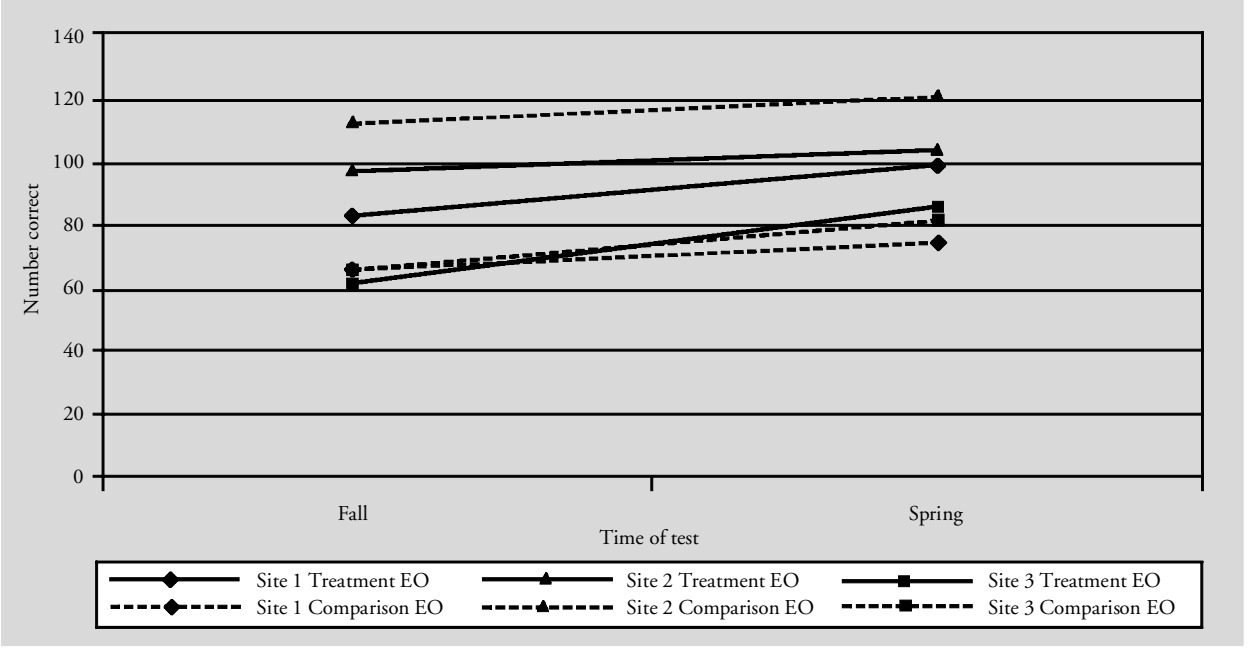


FIGURE 5A
AVERAGE ELL FIFTH-GRADE FALL AND SPRING PERFORMANCE ON THE POLYSEMY TASK AS A FUNCTION OF SITE AND CONDITION

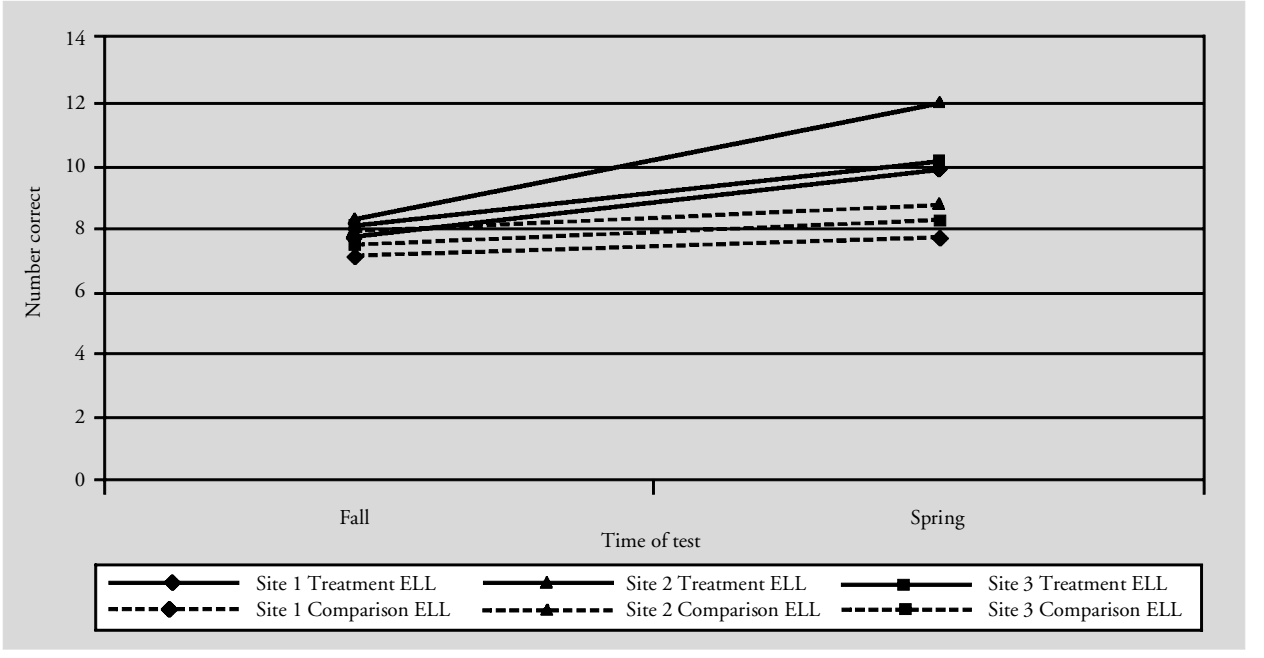
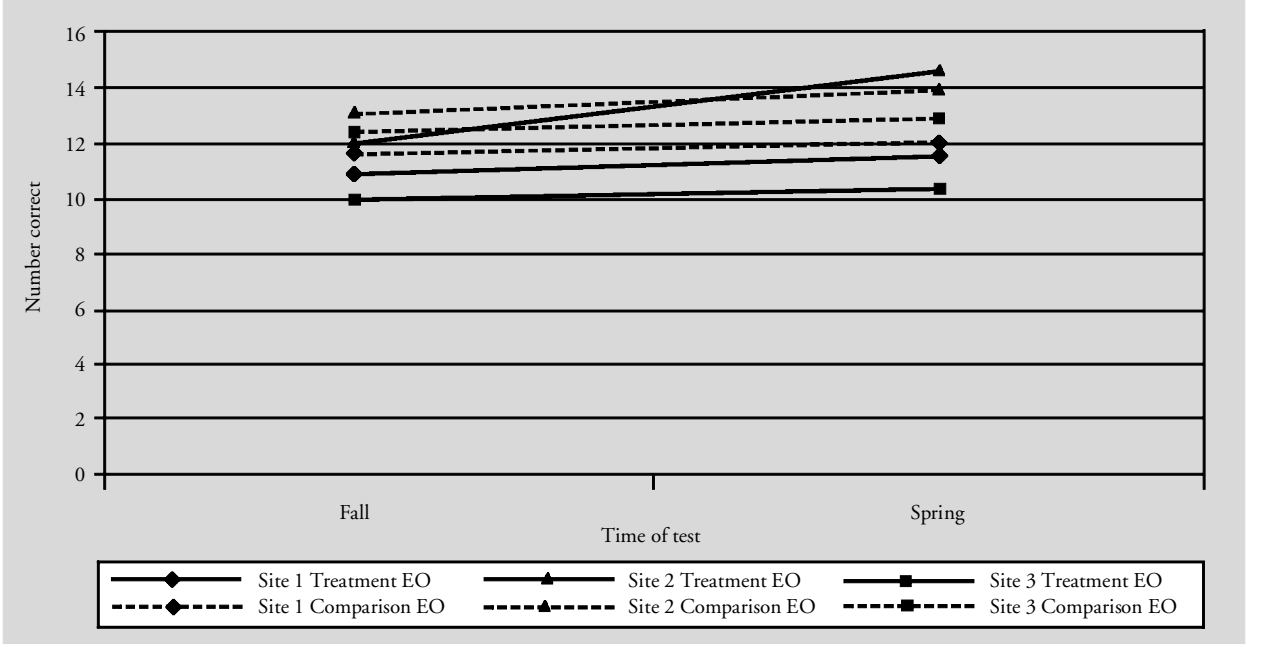


FIGURE 5B
AVERAGE EO FIFTH-GRADE FALL AND SPRING PERFORMANCE ON THE POLYSEMY TASK AS A FUNCTION OF SITE AND CONDITION



The fact that these language group and site differences emerged despite controls for PPVT–R suggests that differences across the sites in level of performance and in impact of the intervention can be explained only partly by differences in demographic characteristics among the children served. The striking conclusion must be that the effectiveness of the vocabulary instruction was quite resistant to disruption from other influences.

Fidelity of implementation

Why were there persistent differences among the sites in so many outcomes? The three sites differed, as noted above, in their demographics, in the organization of schooling for ELLs, and in aspects of teacher functioning. Informal observations suggested differences within and across the schools in the enthusiasm with which the intervention was embraced, in the reflectiveness and thoroughness with which it was implemented, as well as in the quality of instruction that was occurring during the rest of the school day. To see whether fidelity and quality of implementation were accounting for site differences, fidelity ratings were introduced into regression analyses, using spring scores on each of the five intervention-sensitive measures as outcomes; fall score on the same measure, language group, and PPVT–R were introduced first to see if fidelity ratings accounted for differences in spring scores. For none of the measures did fidelity significantly increase the amount of variation explained, nor were differences between children in the classrooms of high- versus low-fidelity implementers significant. Thus, though there was considerable variation across site and across teacher in fidelity, those differences do not help explain gains.

Discussion

The major goal of this study was to test the impact of an English vocabulary enrichment intervention that combined direct word instruction with instruction in word-learning strategies on outcomes for ELLs. In addition, we wanted to test the impact of that same curriculum on EOs in the same classrooms. We found that a challenging curriculum that focused on teaching academic words, awareness of polysemy, strategies for inferring word meaning from context, and tools for analyzing morphological and cross-linguistic aspects of word meaning did improve the performance of both ELL and EO fifth graders, to equal degrees. The children in the intervention classrooms gained knowledge of the words that were explicitly taught as well as knowledge that should support the efficiency of their incidental learning of novel words (i.e., vocabulary depth as well as knowledge about morphological structure, about cognates, and about polysemy). Thus, we confirmed the effectiveness for ELLs of approaches to vocabulary teaching such as that pioneered by Beck et al. (1987) that had previously been shown effective only with EOs; we demonstrated that procedures previously shown effective only with ELLs, such as those pioneered by Nagy et al. (1993), could be used in mixed-language groups in mainstream classrooms; and we developed a single curricular approach that incorporated many specific techniques and strategies, such as those developed by Graves (2000), Nagy (1988), Stahl (1986), and others, previously shown to be effective in supporting vocabulary learning.

A second goal of this study was to see whether improved vocabulary and word analysis skills would be associated with improved reading comprehension outcomes. We found that, for both ELLs and EOs, the intervention was effective in improving reading comprehension outcomes. The effects for reading comprehension were less dramatic than for word knowledge, as shown by the effect size of .08 (eta squared) on the reading comprehension measure as compared with .34 for mastery of the words taught. Nonetheless, it is striking that any improvement in reading comprehension was measurable after a relatively brief curricular intervention that did not focus specifically on teaching comprehension.

Thus, we conclude that direct vocabulary instruction is effective, with both ELL and EO learners, if it incorporates the various principles gleaned from previous work on monolingual English speakers and ELLs (Beck et al., 1987, 2002; Graves, 2000; Nagy, 1997; National Institute of Child Health and Human Development, 2000; Stahl & Fairbanks, 1986). For example, teachers should introduce novel words in the context of engaging texts, design many activities such as Charades that allow learners to manipulate and analyze word meaning, heighten attention to words in general with techniques like Word Wizard, ensure that learners write and spell the target words several times, ensure repeated exposures to the novel words, and help children note how the word meaning varies as a function of context. We also conclude that teaching children strategies for inferring the meaning of unknown words is effective, with both ELL and EO learners, if it builds on well-verified procedures (García & Nagy, 1993; Graves; Jiménez et al., 1996; Nagy et al.,1993) such as teach-

ing explicitly how to use context cues, teaching morphological analysis, and teaching about cognates.

Challenges to curricular change

Another conclusion to be drawn from this work is the complexity of implementing a challenging curriculum in urban schools. The teachers in our study were volunteers, and most were experienced classroom practitioners. They were, however, working in schools that were adopting a variety of curricular initiatives, which in some cases diverted time and attention from this particular intervention. Furthermore, though we made every attempt to provide curricular materials that were self-explanatory and easy to use, those materials presupposed knowledge about vocabulary and about lexical analysis that the teachers in some cases did not possess. Despite efforts to design the curriculum so it could be used with little additional preparation time from the teachers, we found it necessary to provide considerable professional support, and even so, differences in quality of implementation were measurable.

Additional measures of success

The intervention was, overall, successful in its specific aim of enhancing reading skills and word knowledge. It was successful by other measures as well. The teachers reported quite a high level of satisfaction with the materials, and the students enjoyed the lessons and displayed heightened sensitivity to word meanings and increased awareness of Spanish–English relationships (see Dressler, 2000). It is disappointing, on the other hand, that the intervention was not observed to change classroom practice outside the structured lessons and has not survived as an intact instructional program in any of the classrooms where it was introduced, though some teachers report continuing to use some of the techniques they learned during the intervention.

The challenge of optimizing learning for ELL and EO children simultaneously

The intervention assessed here incorporated a number of specific instructional components (e.g., the specific texts used, the small-group activities, the crossword puzzles and other homework assignments) that we believe contributed to its success, though we could not assess their independent impact. Some of these components were designed to support the participation of Spanish speakers: providing the key texts in Spanish so they could be previewed, providing translation equivalents of the target words in the teaching materials, selection of immigration as the organizing topic, inclusion among the texts to be read of several that were particularly relevant to the experiences of Mexican and Dominican immigrant families, and incorporating instructional activities that relied on the Spanish speakers as resources (e.g., in identifying cognates). Our analyses cannot help us decide whether these supports for Spanish speakers' participation contributed importantly to the effectiveness of intervention for them, or indeed whether it contributed to or detracted from its effectiveness with their English-only classmates. Future research might well explore the impact of these various components independently.

Limitations

This study was, of course, subject to many limitations. Several of the measures we used were experimenter designed, though their psychometric properties were satisfactory. We did not employ a standardized measure of reading comprehension; we relied on cloze procedures because they have often been used to study the interaction between comprehension and word knowledge. However, concerns have been raised in the research literature about the value of cloze tests as measures of comprehension (Shanahan, Kamil, & Tobin, 1982). Testing the effects of the intervention on comprehension performance using a wider variety of reading measures would be valuable. Because we had no general measure of English-language proficiency for the ELL students, we were unable to test the interaction between English proficiency and intervention effects. Given the enormous variability in English proficiency among ELLs, it would be important to determine whether the effects of the intervention vary as a function of English proficiency.

In addition, we were unable to test long-term effects of the intervention, either on students or on teachers. A particular issue to think about in evaluating a curriculum-based intervention like this is the trade-off between the value of a predesigned chunk of curriculum with some built-in professional development versus a more significant investment in professional development itself. Giving teachers more access to information about and practice with the vocabulary teaching techniques incorporated into the intervention might have enabled them to use those techniques more broadly across a variety of subject areas, possibly with greater impact than the 45-minute vocabulary-focused lessons we designed.

Conclusion

The key distinction of the vocabulary training offered here was that teaching new words was subordinated to the goal of teaching about words—various kinds of information about words that could help children figure out word meanings on their own. Thus, the curriculum introduced only 12 to 14 new words a week, sacrificing the opportunity to teach an additional 10 to 15 words in order to focus instruction on strategies for narrowing candidate word meanings by using context, noticing words in new contexts, checking the likelihood that the word has a Spanish cognate, and analyzing morphological structure for cues to meaning. Such strategies could have ongoing value to children who encounter unknown words in semantically rich contexts, who understand enough of the context to use contextual information in analyzing word meaning, and who remember to use them. Their value at least in the short run was, in fact, confirmed by our finding of a significant impact on reading comprehension.

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APPENDIX A

TARGET WORDS (NONCOGNATES ARE IN ITALICS) TAUGHT DURING INTERVENTION BY WEEK OF INSTRUCTION

Week	Title of reading material	Source of selection	Target words
(1)	A journey to the new world—Part 1	Lasky, K. (1996). *Dear America: A journey to the new world. The diary of Remember Patience Whipple*. New York: Scholastic.	Ambition, catastrophe, determination, dictator, discriminate, diverse, epidemic, *famine*, *flee*, immigrant, motive, optimism, prospect, *settle*
(2)	A journey to the new world—Part 2	Same as above	Authority, condemn, corrupt, establish, faction, native, persecution, *pilgrim*, political, puritan, reformer, *reign*, *scorn*, *worship*
(3)	A journey to the new world—Part 3	Same as above	Accumulate, *charter*, coalition, colony, economy, essentially, financial, *grueling*, idealist, *indenture*, *livelihood*, merchant, *profit*, *sponsor*
(4)	Immigrant kids	Freedman, R. (1980). *Immigrant kids*. New York: Puffin.	Ally, contact, determine, document, *draft*, *exert*, *fledgling*, jurisdiction, official, *ominous*, *ravage*, *surplus*, *trade*, *treaty*
(5)	Review week		No new words
(6)	Immigrant kids at home—Part 1	Same as above	Absorb, century, congested, custom, dense, dialect, district, ethnic, fervent, impoverished, occupy, prosperous, social, *tenement*
(7)	Immigrant kids at home—Part 2	Same as above	*Arouse*, common, congregate, *dank*, elevated, humanity, monotonous, *pitched battle*, *relief*, rival, *stifling*, torment, ultimatum, unfamiliar

(continued)

APPENDIX A

TARGET WORDS (NONCOGNATES ARE IN ITALICS) TAUGHT DURING INTERVENTION BY WEEK OF INSTRUCTION (continued)

Week	Title of reading material	Source of selection	Target words
(8)	Immigrant kids at school—Part 1	Same as above	*Allegiance*, facility, humiliate, laborious, meticulous, monitor, nonexistent, penetrating, *pledge*, promote, represent, rigid, *script*, *strive*
(9)	Immigrant kids at school—Part 2	Same as above	Agency, anxiety, fundamental, *heritage*, obtain, periodic, reflect, *reject*, *shame*, stenography, tradition, transform, values, vocational
(10)	Review week		No new words
(11)	New kids in town	Bode, J. (1989). *New kids in town: Oral histories of immigrant teens*. New York: Scholastic.	*Amend*, collective, debate, demographics, extend, impression, *inaccurate*, *issue*, *midst*, opportunity, resident, *shift*, *stem*, unprecedented
(12)	The new immigrant tide: A shuttle between worlds	*The New York Times*. (1998, July 19–21).	Campaign, civic, concentration, contemplate, *degree*, dual, ebullient, *forsaken*, fracture, in utero, *renown*, *shuttle*, *straddle*, transnational
(13)	A Mexican town that transcends all borders	Same as above	Assimilate, *bestride*, communal, *flourish*, hybrid, identity, *juncture*, novel, psyche, redefine, saga, *span*, transcontinental, transcend
(14)	The new immigrant tide—Part II	Same as above	*Balk*, conscious, hyperdeveloped, immediate, inevitable, *maintain*, *overwhelming*, profound, revolutionize, status, technology, tentative, *underclass*, vital
(15)	Review week		No new words

APPENDIX B

SUMMARY OF VOCABULARY INSTRUCTION ACTIVITIES BY DAY AND WEEK OF INTERVENTION

Week	Day 1	Day 2	Day 3	Day 4	Day 5
(1)	Preview for ELLs; students listen to Spanish summary of reading passage and preview list of target words	Introduction; predict story line; read passage; circle vocabulary; extract definitions; assign homework	Using words in context; complete cloze sentences working in groups	Expanding meaning: Word roots	Tools to develop vocabulary: Cognates
(2)	Same as above	Same as above	Same as above	Expanding meaning: Deep processing	Tools to develop vocabulary: Affixes
(3)	Same as above	Same as above	Same as above	Expanding meaning: Deep processing	Tools to develop vocabulary: Idioms
(4)	Same as above	Same as above	Same as above	Expanding meaning: Multiple meanings	Tools to develop vocabulary: Root words
(5)	Word bee	Word meaning analysis	Charades	Word guess	Posttest
(6)	Preview for ELLs	Introduction	Using words in context	Expanding meaning: Antonyms/ synonyms	Tools to develop vocabulary: Inferencing
(7)	Same as above	Same as above	Same as above	Expanding meaning: Deep processing	Tools to develop vocabulary: Cognates
(8)	Same as above	Same as above	Same as above	Expanding meaning: Word substitution	Tools to develop vocabulary: Affixes

(continued)

APPENDIX B

SUMMARY OF VOCABULARY INSTRUCTION ACTIVITIES BY DAY AND WEEK OF INTERVENTION (continued)

Week	Day 1	Day 2	Day 3	Day 4	Day 5
(9)	Same as above	Same as above	Same as above	Expanding meaning: Related words	Tools to develop vocabulary: Root words
(10)	Homework	Polysemy	Charades	Word sort	Posttest
(11)	Preview for ELLs	Introduction	Using words in context	Expanding meaning: Synonyms/ antonyms	Tools to develop vocabulary: Dictionaries
(12)	Same as above	Same as above	Same as above	Expanding meaning: Synonyms/ antonyms	Tools to develop vocabulary: Root words
(13)	Same as above	Same as above	Same as above	Expanding meaning: Word substitution	Tools to develop vocabulary: Cognates
(14)	Same as above	Same as above	Same as above	Expanding meaning: Deep processing	Tools to develop vocabulary: Multiple meanings
(15)	Homework	Word guess	Charades	Word bee	Posttest

OVERVIEW OF WEEK 7 ACTIVITIES: *IMMIGRANT KIDS AT HOME*

Lesson	Instructions to teacher in teacher handbook	Instructions to student in student workbook
Day 1: Preview for ELLs	❑ Instruct ELL students to go to stations where they will listen to audiotaped recordings of the Spanish version of the English text to be read the next day. ❑ Students will also be given brief definitions for Spanish translations of the English target words.	❑ Listen to audiotape.
Day 2: Introduction of text and vocabulary inferring strategies	❑ Engage students in a brief story prediction activity using illustrations and review of prior week's story. ❑ Read the passage aloud to the students. ❑ Read posted target words. ❑ Reread the passage aloud to the students. ❑ Call on students who appear to know the meaning of the target word. ❑ Guide students in discussion of those words whose meaning can be inferred from the context. ❑ Guide students in discussion of meaning of compound words in the passage and add to the compound word wall. ❑ Assign homework: definitions.	❑ Three- to five-minute student discussion of predictions ❑ Listen to passage and follow along in your workbook. ❑ Read posted target words. ❑ As teacher rereads the passage circle each of the target words as they come up in the text. Raise your hand if you know the meaning of the target word without having to look it up in your glossary for this week. ❑ For homework write the correct target vocabulary word next to the definition provided.

(continued)

OVERVIEW OF WEEK 7 ACTIVITIES: *IMMIGRANT KIDS AT HOME* (continued)

Lesson	Instructions to teacher in teacher handbook	Instructions to student in student workbook
Day 3: Using words in context	❑ Review homework using the homework transparency that is provided. Write the correct responses on the transparency. ❑ Group students in heterogeneous language groups of four or five students. ❑ Show students the transparency for the Contexting activity (see example below). Have students discuss the answers and raise their hands when every member of the group knows the answer and agrees with the group's answer. Assign points to groups for correct answers. ❑ Ask one member of the group to provide the answer and to explain why it is the correct one. ❑ Read aloud three or four sentences from previous week's Word Wizard activity. Send the sentences to the project webmaster so that they may be posted on the project website. ❑ Assign homework: crossword puzzle, Word Wizard List for posting at home.	❑ Correct your homework responses if necessary. ❑ As a group discuss each of the items in the Contexting activity in your workbook. Write the answer in your workbook. ❑ Complete the crossword puzzle on your own.
Day 4: Expanding meaning	❑ Review crossword puzzle homework using the homework transparency that is provided. Write the correct responses on the transparency. ❑ Group students in heterogeneous language groups of four or five students. ❑ Guide students through Deep Processing activity using the transparency that is provided (see example below).	❑ Correct your homework responses if necessary. ❑ As a group discuss each of the items in the Deep Processing activity in your workbook. Write the answer in your workbook.

(continued)

OVERVIEW OF WEEK 7 ACTIVITIES: *IMMIGRANT KIDS AT HOME* (continued)

Day 5: Tools to develop vocabulary and vocabulary review	❑ Group students in heterogeneous language groups of four or five students for the Cognates activity. Be aware that ELL students will be the experts in this task. Instruct them to help English-speaking group members complete the activity. ❑ Guide students through Cognates activity using the transparency that is provided (see example below). ❑ Instruct students to complete the Vocabulary Review activity individually.	❑ As a group discuss each of the items in the Cognates activity in your workbook. Write the answer in your workbook. ❑ Complete the Vocabulary Review by writing the correct target vocabulary word next to the definition provided.

Vocabulary inferring strategies (example of directions to teacher)

❑ Before you reread the passage from the transparency, say, *Follow along in your Student Word Book as I read the passage again. Give me a "thumbs up" when I read a target word and then circle the word. If you think you know what the word means, without reading the definition, raise your hand and I will call on you.*

❑ After students have suggested meanings, say, *Let's check the definition to see how close you were.*

❑ Meaning can be inferred for *humanity*. When you reach *humanity*, say, *Remember that sometimes you can figure out what a word means by skipping over it and finishing the sentence. Or you can reread the sentence while thinking about what the word might mean. Let me remind you how this works by reading the sentence with humanity in it. "The sunlight and fresh air of our mountain home...were replaced by four walls and people over and under and on all sides of us until it seemed that* ***humanity*** *from all corners of the world had congregated in this corner of New York City." Let's see, earlier in the sentence it talks about people on all sides of them. Do you think humanity has something to do with groups of people? Let's look up the definition to see if we're close.*

Word Wizard activity (example of directions to teacher)

❑ Encourage each group of students to read 3–4 sentences from the previous week. Choose one from each group to be posted on the Web.

❑ Motivate students to find sentences with this week's vocabulary. Say, *Each time you hear or read one of this week's words used in a sentence at home, school, or even on TV, I want you to write the sentence on a sentence strip. Please write down where you heard or read it.*

(continued)

APPENDIX C

OVERVIEW OF WEEK 7 ACTIVITIES: *IMMIGRANT KIDS AT HOME* (continued)

Contexting activity (example of directions to teacher)

- ❑ Using the transparency (in Teacher's Materials), read the first cloze sentence aloud to the class.
- ❑ Say, *Your job is to figure out which word fits in the blank using the clues that are in the sentence. When everyone in the group knows the correct word and why it fits, raise your hands. I'll call on one of the first groups ready. You will get a point if you get the correct answer. Remember, everyone in your group must know the answer and why it is correct.*
- ❑ Ask one child at a table for the correct answer and to explain why it is correct.
- ❑ Find ways to encourage English-language learners to participate.
- ❑ Continue until the lesson is completed, giving each group 1 point for each correct answer.
- ❑ Note that first set of 14 cloze sentences consists of "near contexts." These are sentence contexts that are similar in topic to the target passage (e.g., Many immigrants from the same country gather together for religious holidays. They often congregate at the local church.) The second set of 14 cloze sentences are "far contexts" indicating the use of the word in a different thematic context (e.g., At some parties, the guests like to congregate in a person's kitchen).

Deep processing activity (example of directions to teacher)

- ❑ Say, *You have already learned many of the definitions for this week's vocabulary words. Remember that definitions alone don't teach you everything you need to know to really understand what a word means. In today's activity you will be asked to think about how one word's meaning relates to another word's meaning. Does anyone remember what this is called? That's right, it is deep processing.*
- ❑ Say, *For example, remember when I asked you to think about a reformer. Which of these things would a reformer be likely to do? (a) Go to the park for a picnic; (b) work to change rules that are not fair to a group of people; (c) notice that something isn't fair and say, "Oh well, I can't do anything."*
- ❑ Say, *When you think about each of these possibilities, ask yourself whether a reformer would or would not be likely to do each thing. This makes you think more about reformers and gives you a richer and deeper picture of what reformer means.*
- ❑ Say, *Now you will work in your groups with questions similar to the one we just talked about. Your job is to read each question and talk with your group to decide which answer is correct and why. Remember, you must be able to explain why you chose your answer.*
- ❑ Examples of items: Would you rather congregate with your friends in a dank place or a stifling place? Explain why. What has caused the most torment in your life? What gave you relief from the torment? Name 3 things that commonly arouse a teacher's anger.

(continued)

OVERVIEW OF WEEK 7 ACTIVITIES: *IMMIGRANT KIDS AT HOME* (continued)

Cognate activity (example of directions to teacher)

- ❑ Say, *Remember that when you are learning another language, it sometimes helps to look for similarities in how words sound or are spelled. If you were in a country or neighborhood where all the signs were in Spanish, which word would you look for if you wanted to find a police station?* Teléfono, policia, or parque? *Who remembers what words are called that have similar spellings in English and Spanish and are related in meaning? Remember, there are also false cognates. False cognates are words that have similar spellings in English and Spanish, but are NOT related in meaning. Does anyone remember a false cognate? What does the Spanish word red mean? Red means net in Spanish!*
- ❑ If this appears to be too difficult for your students, you may need to work as a whole group and look for the cognates on the text transparency. You might emphasize the cognates as you read.
- ❑ Say, *For this activity I will give each team a passage to read. Your job is to look for the words that have Spanish cognates. When you find a word that you think is a cognate, write the word and the Spanish cognate on the worksheet. Discuss the meanings of the Spanish cognates you find to make sure that they do have the same meaning as the English word in the fable.*
- ❑ When all teams have completed their worksheets, collect the worksheets and write the words and their cognates on the board.
- ❑ Ask students for meaning of both words to decide if they are true or false cognates.
- ❑ Prompt for additional clues if students have not found them all.