Consequences and Validity of Performance Assessment for English Language Learners: Integrating Academic Language and ELL Instructional Needs into Opportunity to Learn Measures

CSE 678

Christy Kim Boscardin & Zenaida Aguirre-Muñoz,
Co-Project Directors
National Center for Research on Evaluation,
Standards, and Student Testing (CRESST)
University of California, Los Angeles

May 2006

National Center for Research on Evaluation,
Standards, and Student Testing (CRESST)
Center for the Study of Evaluation (CSE)
Graduate School of Education & Information Studies
University of California, Los Angeles
GSE&IS Building, Box 951522
Los Angeles, CA 90095-1522
(310) 206-1532

Project 4.3 Consequences and Validity of Assessment
Christy Kim Boscardin and Zenaida Aguirre-Muñoz, Project Directors, CRESST/UCLA

The work reported herein was supported in part under the Educational Research and Development Centers Program, PR/Award Number R305B960002, as administered by the Institute of Education Sciences, U.S. Department of Education.

CONSEQUENCES AND VALIDITY OF PERFORMANCE ASSESSMENT FOR ENGLISH LANGUAGE LEARNERS: INTEGRATING ACADEMIC LANGUAGE AND ELL INSTRUCTIONAL NEEDS INTO OPPORTUNITY TO LEARN MEASURES

Zenaida Aguirre-Muñoz, Christy Kim Boscardin, Barbara Jones, Jae-Eun Park, Marjorie Chinen, Hye Sook Shin, Janet Lee, Anastasia Aimee Amabisca, and Aprile Benner

CRESST/UNIVERSITY OF CALIFORNIA, LOS ANGELES

ABSTRACT

To further the understanding of ELL (under) achievement and broaden the current scope of OTL models, the primary focus of this study was to investigate process and content opportunities that are particularly relevant to improving ELL achievement with particular attention to the relationship between opportunities to acquire academic language and ELL achievement. The work reported here operationalized academic language within a systemic functional linguistics theory (also called "functional grammar"). This theory of language use provided teachers and students with a framework for analyzing language in a manner that both built on existing language knowledge (or schemas) and provided them with an accessible structure for examining more complicated language (and content) concept. Based on our literature review, previous findings, and new ELL-sensitive OTL model, we investigated the following research questions in this study: (a.) To what extent and in what ways are students being exposed to key OTL variables in classrooms? (b). What is the impact of academic language and other OTL indicators on ELLs' and non-ELLs' performance on LAPA? After an introduction and literature review, the remainder of this report addresses sources of data, description of instruments and procedures, and types of analyses selected for the study; findings related to the research questions; and concludes with a discussion based on the findings. One of the most important findings from this study points to the need for explicit instruction on academic language. The positive impact of functional grammar implementation on student outcomes also suggests that in order for ELLs to fully benefit from assessment-driven reform, teachers need the capacity to make the linguistic expectations clear to students by focusing on the linguistic elements that are characteristic of academic registers.

EXECUTIVE SUMMARY

Past research has demonstrated that discrepancies in educational inputs across schools are linked to differences in academic achievement across groups of students (e.g., Aguirre-Muñoz & Boscardin, forthcoming; Darling-Hammond, 1990, 1994; Gross, 1993; Jackson, 1982; Kozol, 2000; Oakes, 1985). Also, the evidence of a relationship between student background characteristics including language proficiency and test scores is mounting. These trends point to the need for ongoing investigations of the differential impact of reform on different groups of students, especially English language learners (ELLs) with equal attention given to input (e.g., teacher training, student exposure to content, etc.); processes (e.g., instructional strategies and delivery format); and output (e.g., achievement, course taking patterns, etc.) (Bartman, 2002; Lee & Wong, 2004; Valencia, Valenzuela, Sloan, & Foley, 2004). Although there is a rapidly growing literature in this area, few studies have focused on factors that impact performance of ELLs—a significant proportion of students in public schools who may be most impacted by high-stakes accountability policies. Without systematically integrating factors that are instructionally relevant for ELLs, current opportunity to learn (OTL) models may be limited in expanding our knowledge of the antecedents of ELL learning and thus may not provide adequate guidance for developing reform policies that adequately address their instructional needs.

To further the understanding of ELL (under) achievement and broaden the current scope of OTL models, the primary focus of this study was to investigate process and content opportunities that are particularly relevant to improving ELL achievement with particular attention to the relationship between opportunities to acquire academic language and ELL achievement. The primary research questions thus included:

1. To what extent and in what ways are students being exposed to key OTL variables in classrooms?
2. What is the impact of academic language and other OTL indicators on ELLs' and non-ELLs' performance on Language Arts Performance Assignment (LAPA)?

In order to address the research questions, we used a mixed-methods approach by incorporating both quantitative and qualitative analyses. Additionally, we knew prior to our investigations that direct instruction on linguistic structures

that correspond to academic language would not be occurring in classrooms. Teachers are simply not provided with techniques for doing so in their credential courses (Wong-Fillmore, 2000). Given that one of our research interests was to examine the impact of ELL opportunity to learn academic language on student outcome, we needed to create an environment to study this explicitly. The work reported here operationalized academic language within a systemic functional linguistics theory (also called "functional grammar"). This theory of language use provided teachers and students with a framework for analyzing language in a manner that both built on existing language knowledge (or schemas) and provided them with an accessible structure for examining more complicated language (and content) concepts. This was achieved by deconstructing linguistic structures to highlight those that correspond to academic language. Therefore, we developed a four-day teacher training program on instructional strategies to incorporate functional grammar in classrooms with 2-day follow-up comprised of four modules to ensure some level of academic language instruction in classrooms.

A summary of key findings that address these research questions are presented below:

Q1: To what extent and in what ways are students being exposed to key OTL variables in classrooms?

To address this question, we examined the instructional practice data from three sources: (a) the teacher OTL survey, (b) classroom observations, and (c) teacher interviews. While the OTL survey primarily measured the quantity of specific instructional practices aligned with OTL variables, the observation and interview data provided more information on the quality of those practices. The key findings are highlighted under each of the OTL variables.

Content exposure: Academic language. Based on our survey, interview, and observation data, we found that teachers in general did not adequately expose students to functional grammar concepts. Although we did not find systematic differences between trained and comparison teachers in the level of explicit instruction on functional grammar concepts in the survey responses, we found qualitative differences in the level of functional grammar implementation between these two groups of teachers when we examined our interview and observation data. Comparison teachers tended to focus simply on content and ideas and on a broad and superficial level of writing instruction (e.g., an overall essay structure),

whereas most trained teachers described detailed writing lessons in their interviews, which included various prewriting activities that helped students develop ideas as well as instruction in academic language that met grade level expectations during the first draft and revision phases.

Content exposure: ELA (English language arts) content coverage. On average, both trained and comparison teachers reported that they spent about 3 to 4 weeks on various activities related to literary analysis. However, the types of instruction provided to students differed for the trained and comparison teachers. In regards to writing instruction, comparison teachers focused instruction on prewriting activities and some writing conventions, such as global essay structure and mechanics, whereas trained teachers indicated the use of a greater degree of instructional support in writing, including not only organization of ideas, but also expression of ideas in a coherent and authoritative manner.

Access and development. This variable included ELL process strategies, second language acquisition, and delivery format**.** We found that teachers varied significantly in the amount of the various instructional strategies they utilized that specifically targeted ELLs. In general, the level of access and development strategies provided to students ranged from once per week to two or more times a day. Based on the interview data, we found that the majority of teachers were familiar with ELL-specific processes, and most provided at least one method consistently. However, most teachers provided mainly verbal scaffolding and direct instruction. Although teachers mentioned the use of procedural scaffolding, observations revealed that teachers tended to utilize whole-group guided instruction. Thus, the gradual move toward independent work was not observed.

Further, teacher comments revealed a belief that verbal scaffolding in whole-group instruction, coupled with the use of some specialized techniques in the presentation of the content, such as graphic displays, provided sufficient access to the curriculum. Therefore, teachers tended not to provide small group activities that fostered negotiation of meaning; a process necessary for language learning.

Feedback and assessment: LAPA preparation. According to our survey results, the amount of feedback teachers provided to the students varied significantly, ranging from about once a month to once or twice a week. Based on the interview and observation data, we found that the majority of trained teachers were providing students with meaningful and specific feedback, and conducting assessment of comprehension to a high degree.

Teacher experience and expertise. The average number of years teaching was about 10 years for the teachers participating in this study. In addition, the average number of years teaching English language arts (ELA) was about 6 years. However, about 50% of the teachers had less than 4 years of teaching experience in ELA.

Q2: What is the impact of academic language and other OTL indicators on ELLs' and non-ELLs' performance on Language Arts Performance Assignment (LAPA)?

Content exposure: Academic language. We found consistently across all four LAPA scores that students in classes with teachers who had high functional grammar implementation had higher performance on LAPA than students in the classrooms with low implementation of functional grammar concepts. Further, we found that the opportunity to learn functional grammar equally benefited both ELLs and non-ELLs. The level of functional grammar implementation was consistently the most important OTL variable for predicting student performance on all four scores, including the holistic and three functional grammar analytic dimensions.

Content exposure: ELA content coverage. Contrary to our previous findings, in this study, the relationship between the levels of content coverage in literary analysis and student outcome was not statistically significant. For the most part, reading opportunities and practice were achieved using the adapted materials of the school with few opportunities for students to select their own reading materials. One possible explanation for this lack of association can be attributed to the fact that teachers without knowledge of academic language structures tended not to provide instruction on expository writing and focused instruction on pre-writing and the first draft of the text. Teachers with knowledge of academic language structures used this knowledge to develop focused lessons throughout the writing phases, particularly the revision phase of writing. Consequently, the effect of ELA content coverage may have been confounded by the level of explicit academic language instruction.

Access and development: ELL process strategies and second language acquisition. The hierarchical linear model (HLM) analysis did not reveal a significant relationship between ELL process strategies and student achievement. However, the lack of significance may be due to several factors, including: (a) the language used in the survey items, (b) the lack of variability among teachers, and (c) difficulty differentiating the unique effect.

Feedback and assessment: LAPA preparation. HLM analysis did not reveal a significant relationship between LAPA preparation and student performance. Again, the lack of significance may be attributable to the focus on the superficial aspects of writing by most teachers and the fact that many teachers followed similar instructional patterns during the LAPA preparation period as they did during the rest of the year.

Teacher experience and expertise. Although based on the HLM analyses, teacher expertise was not a significant factor in student performance on LAPA; qualitative data revealed key differences in teacher quality based on years of teaching experience. Level of experience was found to differentiate teachers in important ways. First, less experienced teachers harbored misconceptions about what constituted effective practices for ELLs. These teachers often described the use of practices that are less effective in supporting ELLs' linguistic needs, such as overuse of direct instruction or lack of thinking skills instruction. Second, teachers with greater knowledge of academic language structures were more adept in identifying specific instructional needs and developing instructional plans aimed at addressing those needs. These teachers in particular directed a greater degree of attention to the revision process and did so effectively. Additionally, latent class analyses (LCA) also suggested that there seemed to be a positive association between education level and the way teachers interpreted and answered the OTL questionnaire.

In summary, while certain teaching practices corresponding to specific OTL were found to have a positive impact on student performance, specifically instruction in academic language, LAPA scores overall were fairly low compared to the proficiency criteria of the LAPA holistic rubric. This corresponds directly with the general low level and poor quality of OTL exposure for the majority of the students in this study. The results from this study underscore the need for systematic examination of OTL to monitor the quality of instruction.

Summary of Conclusions and Recommendations

Academic Language in English Language Arts

One of the most important findings from this study points to the need for explicit instruction on academic language. The findings further suggest that without continual and linguistically supported access to the curriculum, ELLs may not

benefit from assessment-driven reform efforts; over time, unsupported access may lead to increases in achievement gaps. By focusing on these language schemas, this study also contributes to research addressing ELL instruction by revealing the importance of instructional practices designed to build on students' existing knowledge structures in a manner that does not rely on techniques that limit ELLs' opportunities to receive and produce grade-appropriate academic texts, such as text adaptation and the use of graphic displays. While scaffolding strategies that reduce the linguistic demand of content are necessary for ELLs with very low English proficiency, teachers need tools for gradually removing these scaffolds. If these scaffolds are not removed, ELLs may not develop the capacity to cope with rigorous content and in turn may never fully benefit from outcome-based reform efforts, even if such reforms directly address their instructional needs.

Academic Language in Other Subject Matter Learning

The findings reported here also suggest that the systemic functional linguistics approach to academic language instruction, combined with appropriate access and development strategies, offers a theoretically based framework to provide ELLs with significant access to rigorous curriculum not only in language arts but also in other content areas (e.g., Schleppegrell, 2002).

The incorporation of functional grammar across the content areas can be achieved by highlighting the linguistic elements that correspond to each of the contextual variables that map onto key metalinguistic functions: field (*what's going on*), tenor (*point of view*), and mode (*text structure*). Since this study demonstrated that students could be explicitly taught how to recognize these grammatical features, then it should be possible to train students to identify these features in other content texts to increase their understanding of how the text functions to order ideas and build knowledge (i.e., increase reading comprehension).

Recommendations for Teacher Training in Academic Language

The positive impact of functional grammar implementation on student outcomes also suggests that in order for ELLs to fully benefit from assessment-driven reform, teachers need the capacity to make the linguistic expectations clear to students by focusing on the linguistic elements that are characteristic of academic registers. The findings from this study also provide evidence of the necessity of careful consideration of the content and planning of training aimed at providing

such capacity. We found that if we only considered whether a teacher participated in the training or not, the impact of the training was insignificant after controlling for school factors. However, when we considered level of implementation, the impact was significant.

Triangulation

The observations of classroom practices revealed inconsistencies between the amount of OTL teachers reported in the survey instrument and what the research team directly observed in their classrooms. This pattern was particularly evident for the scales targeting academic language (ELL content coverage/functional grammar), ELL-specific process strategies, and feedback to students. This finding brings up the issue of the reliability and validity of using teacher surveys to gather information about instructional practices.

Recommendations for Improving ELL-Sensitive OTL Instruments

Based on the results of this study, we offer the following recommendations for improving OTL instruments that are sensitive to the instructional needs of ELLs:

- Include more specific examples of academic language coverage.
- Items targeting ELL process strategies should reflect the need for balance among whole group, group work, and independent work, and the need to include activities within these delivery formats for negotiation of meaning.
- Items targeting scaffolding and adaptation of content should be designed around specific English language development (ELD) levels.
- Include items incorporating types of ELL support strategies with content coverage.
- Include items that target metacognitive strategies to develop reading comprehension.
- Include more items that target comprehensible input.
- Include items that target the extent of instructional time spent addressing management issues in the classroom.
- Collect information from teacher logs and lesson plans.
- Collect additional information through discourse analysis.

INTRODUCTION & LITERATURE REVIEW

With the advent of high-stakes accountability, the inadequate distribution of educational resources and access to knowledge (Darling-Hammond, 1990, 1994; Gross, 1993; Kozol, 2000; Oakes, 1985) has resurfaced as a critical issue (Lee & Wong, 2004). Some researchers argue that test-driven accountability may reduce achievement gaps because it serves as an external pressure for academic improvement; however, its effects on academic performance depend largely on school capacity and social support (Lee & Smith, 1999; Newmann, King, & Rigdon, 1997). For example, the achievement gaps among racial and socioeconomic groups were found to be relatively small in states with more equitable distribution of school resources and classroom opportunity to learn (OTL) indicators (Wong & Lee, 1998). Further, this body of work reveals that an emphasis on performance measures does not guarantee increased equity in the distribution of student learning (e.g., Aguirre-Muñoz & Boscardin, forthcoming; Lee & Wong, 2004; O'Day & Smith, 1993). Further, Lee and Wong found in a national study on the impact of test-driven accountability that state accountability reform efforts did not reduce the gap between racial or socioeconomic groups.

These trends point to the need for ongoing investigations of the differential impact of reform on different groups of students with equal attention given to input (e.g., teacher training, student exposure to content, etc.), processes (e.g., instructional strategies and delivery format), and output (e.g., achievement, course taking patterns, etc.). Although there is a rapidly growing literature in this area, few studies have focused on factors that impact performance of English language learners (ELLs)—a significant proportion of students in public schools who may be most impacted by high-stakes accountability policies (Bartman, 2002; Lee & Wong, 2004; Valencia, Valenzuela, Sloan, & Foley 2004). Without systematically integrating factors that are instructionally relevant for ELLs, current OTL models may be limited in expanding our knowledge of the antecedents of ELL learning and thus may not provide adequate guidance for developing reform policies that adequately address their instructional needs.

To further the understanding of ELL (under) achievement and broaden the current scope of OTL models, the primary focus of this study was to investigate process and content opportunities that are particularly relevant to improving ELL

achievement, with particular attention to the relationship between opportunities to acquire academic language and ELL achievement.

Opportunity to Learn

Past research has demonstrated that discrepancies in educational inputs across schools are linked to differences in academic achievement across groups of students (e.g., Aguirre-Muñoz & Boscardin, forthcoming; Darling-Hammond, 1990, 1994; Gross, 1993; Jackson, 1982; Kozol, 2000; Oakes, 1985). Wang (1998), for example, investigated four dimensions of OTL: content coverage, content exposure, content emphasis, and quality of instructional delivery. Wang found that these OTL variables were significant predictors of both written and hands-on test scores. Specifically, content exposure was the most significant predictor of students' written test scores, whereas quality of instructional delivery was the most significant predictor of the hands-on test scores. These findings suggest that OTL should be investigated as a multidimensional construct. Other findings point to the need to examine achievement scores in light of both instructional strategies to which students are exposed to as well as student background factors such as language background, ethnicity, and gender that may be associated with performance (e.g., Abedi, Leon, & Mirocha, 2000; Saxe, Gearhart, & Seltzer, 1999).

The evidence of a relationship between student background characteristics, including language proficiency and test scores, is mounting. For example, Abedi et al. (2000) found that students' language proficiency was negatively associated with performance on the National Assessment of Educational Progress (NAEP) in mathematics. Guiton and Oakes (1995) linked student background characteristics to content exposure. They found that teacher expectations were associated with the proportion of minority students and, regardless of initial achievement, those who were placed in lower level courses showed smaller gains over time than students of comparable achievement who were placed in higher level courses.

These findings underscore the need to continue investigations that lead to more comprehensive OTL constructs. Such research can substantially increase understanding of factors that influence the achievement of underperforming groups of students such as ELLs. Expanding on Porter's (1991) OTL model and previous CRESST work (Aguirre-Muñoz & Boscardin, forthcoming; Baker, Niemi, Herl, Aguirre-Muñoz, Staley, & Linn, 1995; Boscardin, Aguirre-Muñoz, Chinen, Leon, & Shin, 2004; Herman, Klein, & Abedi, 2000), we developed our new OTL framework

for the current study around inputs, processes, and outputs with the intent to measure the levels of ELL-sensitive OTL in classrooms and examine which OTL variables significantly impact student achievement.

In Porter's OTL model, inputs include general teacher quality, resources, student background, and parent and community norms. Processes include the organizational characteristics of schooling, such as the quality of state standards, and the instructional characteristics of schooling such as the curriculum and teaching quality. Outputs include achievement, participation, and attitudes and aspirations. While the OTL framework utilized in this study was influenced by the work of Porter, our aim was to expand on the content and processes factors to include variables that are specifically relevant for ELLs, namely, exposure to, and learning of, academic language, as well as sheltered instruction techniques that have been shown to be effective for ELL learning in the content areas. Of particular concern in this study are OTL measures that are sensitive to opportunities that ELLs receive in terms of content and process strategies as well as additional experiences ELLs require as students who are not proficient in English, such as comprehensible input, explicit language instruction, and sufficient opportunities to produce the target language (i.e., English). Next, we introduce our theoretical framework to provide rationale and context for development of our ELL-sensitive OTL indicators.

Conceptualizing Academic Language

Our review of the literature on academic language revealed that most of this literature was not based on systematic classroom-based investigations of the impact of academic language on student achievement. Essentially, most of the recent literature emphasized the need to increase students' understanding of academic language but fell short in providing empirically based definitions for academic language. Despite the paucity of research in this area, a number of scholars have broken ground in conceptualizing the features of academic language as well as some general principles for its measurement.

Cognitive Academic Language Proficiency

Among the first scholars to address the need to develop academic language was Jim Cummins. Cummins' work (Cummins, 1979, 1984) was important in that it suggested that proficiency in conversational English is necessary but insufficient for academic success. He argued that in order to address the educational issues of ELLs,

a distinction should be made between conversational and academic aspects of language proficiency. His early work characterized these two aspects of proficiency as *basic interpersonal communicative skills* (BICS) and *cognitive academic language proficiency* (CALP). Cummins arrived at this theory of second language acquisition after analyzing language acquisition data from the Toronto Board of Education (Cummins, 1981). These data indicated a gap between the attainment of conversational language proficiency and the attainment of grade norms in academic aspects of the second language. By suggesting that the language of schooling is cognitively distinct from the language used in everyday settings, Cummins directed attention to the importance of academic language in explaining the underachievement of ELLs. That is, "The distinction highlighted the fact that educators' conflating of these aspects of proficiency was a major factor in the creation of academic difficulties for bilingual students" (Cummins, 2000, p. 58). This position contrasted with the dominant view of proficiency at the time: the idea of one unitary proficiency dimension which implies that all individual differences in language proficiency could be accounted for by just one underlying factor.

Specifically, Cummins (1996, 2000) argued that a unitary factor was inadequate for explaining the underachievement of ELLs. He pointed out that language should be considered from at least two dimensions: the level of contextualization and cognitive demand. Further, Cummins characterized the academic registers of schooling as context-reduced and cognitively demanding and everyday language as context-embedded and cognitively undemanding. Essentially, Cummins pointed out that acquiring proficiency in context-reduced language that involves cognitively demanding tasks requires a longer time than acquiring context-embedded language involving cognitively undemanding tasks. While this work has made an important contribution to the field, Cummins's theory regarding academic language has also undergone a number of critiques. For example, Schleppegrell (2004b) points out that it is inaccurate to characterize academic registers as decontextualized (context-reduced) because all language is produced and used within a context. She notes that what differentiates academic registers from social registers are the grammatical elements that are used to provide the context. Others (e.g., Edelsky, 1990; MacSwan, 2000) have criticized the notion of CALP as perpetuating the idea that ELLs' academic failure is attributed to their low cognitive/academic proficiency rather than to inadequate schooling and thereby promoting a "deficit theory" explanation for ELLs' underachievement.

These critiques notwithstanding, most scholars in this area agree that the language of schooling is distinct from language used outside the classroom, particularly in informal settings. Therefore, efforts to operationalize this construct with a high degree of specificity are beginning to emerge.

Recent Definitions of Academic Language

A recent corpus-based approach to defining academic language in K-12 educational settings has been conducted by CRESST researchers (e.g., Bailey & Butler, 2002; Butler, Lord, Stevens, Borrego, & Bailey, 2004; Butler & Stevens, 1997; Stevens, Butler, & Castellon-Wellington, 2000). In this work, six sources of evidence that were analyzed extensively included: empirical studies revealing the relationship between ELL/English-only student performance on content assessments and their language demands; prerequisites implied in national and state content standards, as well as English as a second language standards; teacher expectations; and finally analysis of classroom exposure to academic language. These scholars aimed to provide a systematic account of the contexts of language use (e.g., classroom activities and materials) and specific types of language features and functions used within and across these contexts.

While Butler and her colleagues' initial work highlighted general and discipline-based vocabulary and syntax, they recently developed a framework that organizes this information into language functions. A focus on language functions permits the examination of "the language students must understand and use to complete educational tasks" (Butler et al., 2004, p. 7). Examples of language functions include description, explanation, definition, and persuasion. Although others (e.g., O'Malley & Valdez-Pierce, 1996) have identified language functions and have proposed suggestions for integrating the use of linguistic structures (e.g., highlighting transitional words and phrases that are common to particular language functions) with content area instruction, this work lacks theoretical coherence (Christie, 1999; Schleppegrell, 2004). Without a clear framework, teachers are less likely to develop integrated instructional activities that develop students' skills in both producing *and* comprehending extended academic discourse (oral and written). Both skills in oral and written modes are necessary for successfully completing academic tasks, particularly in developing new understandings where very little or no prior knowledge exists (Gibbons, 2002).

The work reported here operationalizes academic language within a systemic functional linguistics theory. This theory of language use, discussed in greater detail below, provides teachers and students with a framework for analyzing language in a manner that both builds on existing language knowledge (or schemas) and provides them with an accessible structure for examining more complicated language (and content) concepts. This is achieved by deconstructing linguistic structures to highlight those that correspond to academic language. Before we discuss this theory, however, we present issues with how academic language has been characterized by other scholars in this area.

Academic or "literate" language (as opposed to oral language) is typically described as decontextualized, explicit, and complex by many scholars (e.g., Cummins, 2000; Gumperz, Kaltman, & O'Connnor, 1984; Michaels & Cazden, 1986; Olson, 1977, 1980; Snow, 1983; Torrance & Olson, 1984). Many of these scholars have concluded that these features suggest a higher cognitive demand of academic language over language utilized in informal conversation. Functional grammarians argue that these descriptors are inadequate and inaccurate characterizations (e.g., Schleppegrell, 2004b). As mentioned above, to refer to academic texts as decontextualized suggests that "these texts are somehow outside of any particular context" (Schleppegrell, 2004b, p. 9). First, all language occurs in context, including the language of schooling. What makes academic language difficult for many students is the need to rely on a different set of linguistic resources than what students encounter outside of school. These differences stem from the fact that, unlike oral discourse patterns, academic texts do not depend on shared experiences (Gibbons, 2002; Mercer, 2004), and thus are governed by a different set of lexical and grammatical resources. Much of the meaning making achieved in social interaction is achieved from the shared experiences and knowledge between interlocutors, whereas written texts require different kinds of contextualizing features for understanding because it "realizes different situational contexts" (Schleppegrell, 2004b, p. 9).

Second, the notion of explicitness is also challenged because it is typically defined as lexicalization and associated with clarity (Schleppegrell, 2004b). However, studies have demonstrated that lexicalization does not necessarily make a text clear or unambiguous. Explicitness depends on the familiarity with expectations of a given discourse situation. That is, contextual assumptions are important to interpretation. For this reason, it is almost impossible to make written text fully

explicit (Sinclair, 1993). Romaine (1984 as cited in Schleppegrell, 2004b) has demonstrated that children are familiar with the linguistic features necessary for making text lexically explicit. Where individual differences arise is in "knowing what is assumed and what must be made explicit in a particular situation" (Schleppegrell, 2004b, p. 11).

Third, according to Schleppegrell (2004b), describing academic language as complex is also inappropriate as it suggests that literate text is superior to other types of text. Halliday (1987, 1989) argues that it is more accurate to consider oral and written discourse as having different kinds of complexity. A number of scholars have demonstrated that both forms are complex for different reasons. Schleppegrell (2004b) summarized this distinction as follows:

> Written, school-based texts tend to be complex in their internal clause structure, while spoken interaction tends to be complex in the way clauses are chained and linkages are indicated from one part of a larger discourse to another. (p. 13)

In other words, the resources for creating meaning are different for these two discourse forms. Systemic functional linguistics highlights the specific linguistic structures that are functional within a given context where they appear, regardless of whether they are oral or written. Using the systemic functional linguistic approach, we can provide teachers and students with insight into how to comprehend, analyze, and construct written academic texts that utilize various linguistic features in order to realize a range of contexts appropriate for meeting school expectations. In the following sections, we provide a more detailed description of systemic functional linguistic theory and also describe how academic language was conceptualized as an OTL indicator in our new ELL-sensitive OTL model.

The Systemic Functional Linguistic Approach

Systemic functional linguistics (also referred to as functional grammar) offers a framework for examining different systems of language that provide resources for creating meaning (Halliday, 1975, 1994). This linguistic theory views language as "a social process that contributes to the realization of different social contexts… [and]… identifies how grammatical structures realize social meanings and how the meanings construe different contexts" (Schleppegrell, 2004b, p. 45). Like other schools of functional linguists, systemic functional linguistic theorists view language as inseparable from meaning; meaning cannot be divorced from the language used

to convey it. Working from the premise that grammar is a resource for making meaning (rather than a set of discrete rules), functions of clausal structures are examined in relation to the total linguistic system, and explicit links are made to "contextual variables to show how the situational context is realized through linguistic choices" at the clausal level (Schleppegrell, 2004b, p. 45). In this way, clausal elements are critical in understanding how different grammatical systems systemically interact with one another in order to constitute academic registers.

Functional linguistics also allow us to consider both the cognitive and sociological aspects of language development. With respect to the investigation of cognitive development, Painter (2000) characterizes the advantage of the study of language development from a functional linguistic perspective. She states:

> A study of language development from a [functional linguistics] perspective is a study of conceptual development. If language itself is theorized as a system for making meaning, including an ideational component which functions in the interpretation of reality, then in exploring development we are exploring the individual's growing capacity to make sense of experience. This means that as we map children's changing linguistic 'meaning potential' *we simultaneously build up a picture of their knowledge and capacity to think using symbols* [stress added]. And since children's knowledge is created interactively in talk with others, *an exploration of language development can also be an exploration of the process of teaching and learning* [stress added]. (p.66)

From this perspective, acquisition of academic language is viewed as a process of developing essential sociolinguistic competence required for accomplishing a variety of academic tasks in various contexts including the school setting. Essentially, the notion that writing for academic purposes is a social practice underscores the need for systematic investigations of what is conventionally regarded as appropriate academic language.

Register

Systemic functional linguistic approaches to language allow us to observe distinctive features of academic language, which are clearly different from those of informal spoken language. The notion of register within the systemic functional linguistic approach offers a framework that enables us to specify linguistic elements and processes that characterize academic discourse in contrast to informal oral discourse. Register refers to "the configuration of lexical and grammatical resources which realizes a particular set of meanings" (Schleppegrell, 2004b, pp. 45-46). Central in the account of register is that a constellation of lexical and grammatical elements, each of which has its own meaning and function, generates a situational

meaning that particularly pertains to a given context. From a Hallidayan functional linguistic perspective, register variations are explained in three dimensions of language (i.e., field, tenor, and mode) that reflect key meta-functions of language.

Field. The field of discourse is associated with presentation of ideas, thus typically involving "content" words such as nominal groups (text participants), verbal groups (processes), and adverbial expressions (circumstances). These linguistic elements construe the ideational meaning by representing experience expressed in discourse. The ideational meaning is further elaborated through connectors and other resources in which relationships among experiential elements are realized. Following Schleppegrell, Achugar, and Oteiza (2004), we characterized this dimension as *what is going on* in the text when working with teachers, particularly focusing on the elements of grammar that help the reader/listener understand events and the actors in those events.

The field variables of academic register across content areas have commonalities in the sense that experiential elements of language are logically and clause-internally linked through various connectors beyond conjunctions. As a dimension associated with knowledge display, the field of academic discourse is composed of ideational resources realized in complex nominal structures (i.e., noun groups) with specialized, technical, and abstract vocabulary.

Tenor. The tenor of discourse is closely related to the speaker or writer's display of stance (i.e., judgment or interpretation) in the text. The premise is that the speaker or writer expresses his or her personal stance in consideration of the listener or reader. Thus, the display of stance involves various linguistic resources that create the interpersonal meaning. Such interpersonal choices include mood, modality, intonation cues (in spoken discourse), and lexical elements that carry an evaluative and attitudinal meaning. When working with teachers, this dimension was referred to as the *point of view*: the grammatical elements that are used to express an implicit or explicit point of view.

The tenor variables of academic register reflect a convention of academic discourse. That is, personal opinions and stances should be presented in an authoritative and impersonal fashion. This necessitates the use of interpersonal resources including the declarative mood, modal verbs, and lexical choices that carry an implicit evaluative meaning rather than choices that resort to an emotional appeal (e.g., rhetorical questions) and explicit evaluative meaning (e.g., constructions such as "I think that" and "I believe that").

Mode. The mode of discourse refers to the way that language is structured in a given social context in which it is used. The structure of a text reflects both linguistic and nonlinguistic aspects of the social context, such as availability of feedback between speaker and hearer or between writer and reader. Linguistic resources that construe the textual meaning include cohesive devices such as conjunctions and connectors, clause-combining strategies, and thematic organization. We characterized this dimension as *textual structure* when working with teachers to reflect the elements of grammar that realize the type and organization of text that serves a specific purpose.

The mode of academic register is realized through various linguistic processes that contribute to structuring an academic text in expected ways. These linguistic processes are frequently associated with high lexical density due to intricate linkages of ideas between and within clauses. The examples of such linguistic processes include clause structuring through subordinate clauses and embedded clauses, nominalization, and various theme choices that mark an organizational structure (e.g., use of interpersonal themes and connectors in theme position).

In the following section, we discuss previous studies of academic register grounded in systemic functional linguistics in greater detail, particularly focusing on how they informed our conceptualization of academic language as a measurable OTL indicator. Specific examples of linguistic analysis are provided for an in-depth examination of how academic register is realized through various linguistic resources.

Linguistic Analysis on Academic Language

The functional linguistic view of language adopted in this project is fundamentally different from that of traditional linguistics. Heavily based on the Chomskyan notion of language as a mental representation of abstract structures, traditional linguistics has treated grammar in isolation from other dimensions of language such as meaning. In contrast, functional linguistic theorists view language as inseparable from meaning as previously mentioned. Working from this premise, some educational linguists have identified linguistic features within the language metafunctions of mode, tenor and field that characterize academic language.

First, these researchers define the clause as a "message carrier" rather than a grammatical unit and use it as a critical unit of linguistic analysis. Second, Halliday's notion of "theme" is also utilized to analyze language. Referring to all the

grammatical elements that come before the main verb of a clause, theme functions as the starting point of a message for the clause (i.e., what the clause is going to be about). The analysis of theme is treated as an important construct for understanding how different grammatical systems systemically interact with one another in order to constitute academic language, particularly in analyzing how texts are structured to achieve the intended meanings

Another Hallidayan notion related to theme is "rheme," which can be generally defined as the rest of the grammatical elements that come after the theme of the clause. We incorporate this element for the analysis of clause-to-clause cohesion. Building cohesion at the paragraph level involves direct linkages of the theme of one clause to the rheme of the previous clause. Strategies for creating linkages between clauses include nominalization, as will be described below, as well as the elaboration of noun phrases through embedding and further incorporation of adverbial expressions, to name a few. Thus, both theme and rheme are important for examining mode within text.

Other features of written academic discourse have been identified by various linguists. Christie (2002a), for example, characterized "abstractness" (i.e., use of abstract nouns); "technicality" (i.e., use of technical language); and "grammatical metaphor" (i.e., the presentation of information using incongruent, atypical expressions through the use of strategies such as nominalization) as features of advanced academic writing. These features span the three metafunctions of mode, field and tenor, depending on the context of analysis. In particular, the ability to manipulate lexical and grammatical resources has been pointed out as a crucial ability for academic writing in this line of studies because it plays an important role in conveying ideas and knowledge in logical, coherent, and authoritative ways. In her discussion of linguistic demands for academic performance, Schleppegrell (2001) emphasizes multiple functions of nominalization, which refers to "an expression as a noun or noun phrase of what would more congruently be presented as a verb" (p. 443), i.e., creating a noun phrase from what can be presented as a verb. The text below illustrates how a noun phrase ("the rapid expansion of the western territory that created new settlements in Arizona and Texas") originally appeared as a verb phrase ("was expanded").

> The western territory was expanded as a result of the treaty of Guadalupe-Hidalgo. The rapid expansion of the western territory that created new settlements in Arizona and Texas led to increased populations in the southwest.

The first function relates to the condensed presentations of complicated ideas or processes. That is, nominalization elaborated by embedded clauses and prepositional phrases increases lexical density, allowing a concrete, condensed presentation of an idea that would otherwise be expressed in a lengthy sentence or set of sentences. In the example above, the adjective ("rapid"); the prepositional phrase ("of the western territory"); and the embedded phrase ("that created new settlements in Arizona and Texas") create lexical density. Second, nominalization enhances smooth transitions at the clausal level. Effective transitions achieved by the deployment of nominalization in the theme position often convey information expressed in a previous clause. This discourse strategy enhances a smooth transition from one clause to another by creating an intricate linkage between clauses. In the example above, the words "expanded" and "expansion" create a clause-to-clause link. Lastly, nominalization creates an impersonal, generic context in contrast to pronouns, such as first person references that invoke a personal context. With regard to other means of grammatical metaphor, Christie (2002a) and Schleppegrell (2001, 2003, 2004) mention that the choice of mood and modality contributes to a personally detached, less subjective mode of writing. They argue that the declarative mood is highly valued in academic writing in comparison with rhetorical questions or exclamatory challenges, which often resort to a personal, emotional appeal. The following three sentences convey the same general assertion, but they clearly differ in the way that the interpersonal context of the argument is established.

1. Who would not think that the expansion of the western territory resulted from the treaty of Guadalupe-Hidalgo?
2. I think that the expansion of the western territory resulted from the treaty of Guadalupe-Hidalgo.
3. *It must be the case* that the western territory resulted from the treaty of Guadalupe-Hidalgo.

Compared to sentence 1 in the form of a rhetorical question and sentence 2 that starts with the first-person reference ("I") in theme position, sentence 3 achieves a highly impersonal, objective context of argument through an impersonal theme choice ("It") followed by a modal verb ("must") that implicitly conveys the author's epistemic stance toward the proposition.

Academic Writing

The functional linguistic approach has also been applied in analyzing students' writing performance, such as description (Schleppegrell, 1998, 2003); narratives

(Christie, 1986), scientific essays (Christie, 1986; Schleppegrell, 2003); literary analysis; and opinionated texts (Christie, 1986, 2002a). Functional linguistic analyses of student writing reported in previous studies reveal that students often lack understanding of expected language use in performing given academic tasks. In a description task, students invoke a non-academic interpersonal context (i.e., situated and personal context) by deploying the past progressive tense and first person references (Schleppegrell, 1998). In narratives, young writers produce mere recounts of temporal events that lack a sense of crisis or complication typical of narratives. This is evidenced by the overuse of action verbs (and under use of mental verbs) and lack of variety in connector choices (Christie, 1986). Similar problems are also found in students' character studies and tasks that call for deep literary analysis. Christie (1986, 2002a) shows that often missing from student writing is their own interpretation of characters and events. This characteristic is revealed by a lack of verbs that represent the writer's attitude concerning the story (e.g., attitudinal verbs such as resented, detested, and admired); lack of connectors that signal interpretation (e.g., because, although, if); and minimal references made to characters other than the main character. These qualities all indicate these students' difficulty in producing the linguistic features within academic language that comprise the three metafunctions of field, mode and tenor, with mode and tenor being the most difficult for English learners.

The results of a functional linguistic analysis of student writing reveal the need for explicit instruction of how lexical and grammatical resources are closely linked to the realization of particular genres of school-based writing (Schleppegrell, 2003). Unfortunately, contemporary grammar instruction is practiced in the most decontextualized form, that is, teaching discrete grammatical points rather than how different grammatical systems create meaning in concert with each other. Christie (1986) criticizes the contemporary literacy curriculum that focuses merely on "content," "ideas," and "knowledge" in a manner that is highly detached from linguistic features used in expressing them. This issue is significant for ELLs whose lack of linguistic resources for expressing their ideas is often confused with cognitive learning disabilities (Artiles & Ortiz, 2002; Valdes & Figueroa, 1994). Functional linguistic approaches to language allow us to illuminate how a certain genre of academic discourse is realized through a group of lexical and grammatical items that characterize it. By implementing a functional linguistic approach to writing instruction, teachers can provide more explicit instruction of genre-specific features of academic language to enhance reading comprehension and writing skills.

Furthermore, teachers can be empowered with an analytical tool for analyzing students' writing more holistically in a way that moves beyond identifying spelling and punctuation errors or use of technical or "descriptive" vocabulary. Under this premise, explicit instruction in academic language is a critical element to conceptualization of an ELL-sensitive OTL model.

Opportunities for Access and Development of Content and Language

As part of expanding on previous OTL framework to include more ELL-sensitive OTL indicators, in addition to inclusion of academic language in the OTL model, we also identified key instructional strategies that have been shown to be effective for ELLs. These strategies correspond to three general areas: (a) *second language acquisition strategies* to represent how the language of the content is addressed to increase comprehensibility (e.g., comprehensible input, pre-view key vocabulary, predict, summarize, etc.); (b) *ELL process strategies* (e.g., scaffolded, explicit, and individualized instruction, and enticement activities); and (c) *the delivery format* of instruction (e.g., whole-group discussions, collaborative group work, and independent work). Both the first and second categories are designed to provide ELLs with access to the curriculum and involve varying degrees of scaffolding. However, they differ in that content presentation techniques within ELL process strategies are generally used to minimize the amount of linguistic input in scaffolded instruction while still presenting key ideas, concepts, and relationships between concepts and ideas, whereas second language acquisition strategies are intended to provide students with tools for either (a) making sense of the linguistic input they receive to increase comprehensibility for the learner or (b) producing linguistic output that meets expectations for academic discourse and is comprehensible to the listener or reader. These strategies are described in detail next.

Second Language Acquisition Strategies

Sheltered content instruction. One instructional approach that focuses on second language acquisition is sheltered content instruction (see Echevarria & Graves, 1998 for a detailed description and literature base). Introduced by Stephen Krashen in the early 1980s, further elaborated by Schifini (1985), this approach utilizes second language acquisition strategies in content area instruction. Specifically, this approach highlights the use of language and context to make information comprehensible. One underlying premise of sheltered instruction is the

use of comprehensible input, outlined by Krashen (1989), to refer to the idea that second language acquisition occurs if and only if language input is comprehensible to the language learner. That is, if language input contains forms and structures just beyond the learner's current level of proficiency in the language, then both comprehension and acquisition will occur. Similarly, language input that is well above or below the learner's current level of proficiency restricts development of the second language.

The goal of the sheltered approach is to tailor instruction to students' linguistic needs such that they can comprehend the content of instruction to then maximize participation in content-area classes *and* foster second language development. If implemented successfully, sheltered instruction provides (a) access to the core curriculum, (b) English language development (ELD), and (c) opportunities for social integration into today's culturally and linguistically diverse classrooms (Echevarria & Graves, 1998).

The key features unique to the sheltered approach include: (a) adapting academic content to the English proficiency level of the students; (b) using speech that makes information comprehensible to students; (c) providing sufficient wait time and identifying language objectives; (d) emphasizing language development with emphasis on key vocabulary and use of supplementary materials to a high degree; (e) clarifying ideas in the students' first language whenever possible; and (f) frequent integration of the students' background experiences (Echevarria & Graves, 1998).

While the sheltered approach is the most widely used method for instructing ELLs (Echevarria & Graves, 1998), its design centers on supporting "learning content," not on learning new registers per se. That is, sheltered instructional techniques support meaning making related to content concepts, but not the explicit articulation of that knowledge, and they often rely heavily on the visual context at the expense of written modes. Moreover, while this approach is appropriate for use with students with very low English proficiency or for providing initial support to ELLs for understanding highly complex ideas, it may lead to inadequate exposure to more abstract and impersonal texts (oral or written). Over time, this lack of exposure to the academic language that is required for school-based tasks may not serve well students with intermediate and higher levels of English proficiency in developing higher levels of academic English proficiency (Schleppegrell, 2004). For example, in assessment contexts, the reader/writer needs to refer to events that are not shared

by the evaluator. Thus, the vocabulary becomes more abstract, and the text more impersonal. A heavy reliance on visual displays can lead to inadequate exposure to written discourse (Gibbons, 2000), which we argue is critical for the development of academic language because, as discussed earlier, it contains linguistic structures that are not found in oral discourse. The impact of the lack of exposure and opportunities to develop academic language may be greater when policies for exiting students out of ELL status include scores on standardized English language arts tests, which contain and require a great amount of academic language. The challenge for teachers is to structure activities that capitalize on ELLs' comfort levels with oral discourse, using sheltered techniques and gradually move to activities where the focus is on written discourse (Cummins, 2000; Gibbons, 2000; Schleppegrell, 2004). Thus, while sheltered techniques are important, teachers also need to be adept at incorporating methods that focus on authentic academic registers. Other instructional strategies that may provide more access and opportunities to acquire academic language are outlined below.

ELL Process Strategies

Scaffolded instruction. Scaffolded instruction aims to assist students in accomplishing an instructional goal by adjusting the amount of support and assistance that is provided throughout various stages of instruction. Thus, scaffolding refers to the level of support and encouragement provided to students in order to perform at the next level of understanding to ensure progress in learning and development. As such, scaffolding instruction is critical and necessary to develop ELLs' growing language and content knowledge (Echevarria & Graves, 1998). As the metaphor implies, this involves temporary structures provided by teachers, in oral and written modes to assist students to participate in and carry out complex processes before they are ready to do so alone (Peregoy & Boyle, 2005). Assisted participation offers practice and development of a skill as an integrated whole, rather than drill on smaller aspects of the skill one at a time. Once proficiency is achieved, the scaffold is no longer needed and may be dropped.

Explicit instruction. Explicit (or direct) instruction has been shown to be effective for students at-risk for school failure (i.e., little prior knowledge, extensive histories of failure, or little familiarity with complex tasks) (Howell, Fox, & Morehead, 1993). The purpose of explicit instruction is to provide the learner with a "pictorial" way of understanding information and to decompose a task into a series of successful routines (Mercer, Jordon, & Miller, 1996; Ross & Robinson, 1987). This

approach places an emphasis on systematic teacher-led presentations that provide students with structured techniques for acquiring information and structuring complex thoughts (Rosenshine, 1986; Simmons, Fuchs, Fuchs, Mathes, & Hodge, 1995). The three components of this instructional method include (a) teaching in small steps, (b) guiding students during initial practice, and (c) providing students with high levels of successful practice. The interactional patterns of this approach in language learning have been categorized as the initiation-response-evaluation (IRE) sequence (Sinclair & Coulthard, 1975). This approach, however, has been criticized as not providing students with opportunities for negotiation of meaning that promotes language development (Mehan, 1978; Schleppegrell & Simich-Dudgeon, 1996). Criticisms include limiting student responses to single words or short phrases; limiting the number of students that participate in the interaction; not providing instruction and practice in formulating linguistically elaborated responses; over-reliance on teacher interpretations; and finally, limiting students' opportunities to negotiate meaning or pursue their own questions or ideas (Mehan, 1978; Schleppegrell & Simich-Dudgeon, 1996).

Some researchers (e.g., Christie, 1998, 2002b; Wells, 1993), on the other hand, have shown that a direct approach to language learning can be effective in language learning if teachers are clear about its purpose and goals and use it at appropriate places in the lesson. These researchers (Christie, 1998, 2002b; Wells, 1993) have shown that direct instruction can be effective when students need to develop understandings of technical and grammatical language, especially if it is structured in a manner that students can reconstruct knowledge learned through experience in more formal academic language. This is typically achieved through a focus on new linguistic resources (Christie, 2002b; Gibbons, 2002).

Delivery Format

Opportunities for extended discourse. Opportunities for extended discourse can also serve an instructional purpose because the nature of communication between teacher and students and among students is critical for second language learning (Gibbons, 2002), as various scholars have found a positive relationship between oral language and achievement (see August & Hakuta, 1997, for a review of this literature). These studies generally show that students need to have opportunities to talk about the content in order to gain understanding of that content as well as control of the linguistic structures needed to convey such

understanding. The importance of adequate and meaningful opportunities for extended discourse is best summarized by Schleppegrell (2004) in the following:

> The learning of new registers, like learning a second language, requires appropriate input, opportunities for interaction and negotiation of meaning, and relevant focus on form that language takes in different settings and as it is used for different tasks. …The ability to use grammatical and lexical strategies of academic registers in writing and to recognize the meanings they make in the texts they read does not just come naturally in students' ordinary language development. Socialization into new registers depends on having interaction that is meaningful in the new contexts where those registers are functional. … [Socialization into the new registers] requires meaningful and purposeful interactions with an interlocutor who is willing to pursue the meaning-making moves of the learner. (p. 153)

Group or pair work. The use of collaborative groups is one method for providing opportunities for extended discourse. There are numerous studies citing the effectiveness of small collaborative group work. It is particularly important for improving achievement of ELLs. Specifically, effective group work has important advantages over whole-class work for second language learning (Gibbons, 2002; McGroarty, 1993) in several critical ways:

1. Learners hear more language of a greater variety and more language directed toward them; group-work situations increase the input to the learner.
2. Learners interact more with other speakers, and therefore their output is also increased. They tend to take more turns, and in the absence of the teacher, have more responsibility for clarifying their own meanings. In other words, it is the learners themselves who are doing the language learning work.
3. What learners hear and what they learn is contextualized; language is heard and used in an appropriate context and used meaningfully for a particular purpose.
4. There is likely to be considerable message redundancy. That is, similar ideas will be expressed in a variety of ways. Asking questions, exchanging information, and solving problems provide a context where words are repeated, ideas are rephrased, problems are restated, and meanings are refined. This redundancy supports comprehension because it gives learners several opportunities to hear a similar idea expressed in a number of ways.
5. The need to get information or clarify meaning increases the opportunities for learners to ask questions that genuinely seek new information, and thus there is further input and practice in genuine communication as compared with whole-class contexts where it is much more usual for the teacher to ask the questions, and where students are often required to answer only the purposes of showing what they know.

Group work may have positive affective consequences: Learners who are intimidated by the whole-group structure are more confident in small groups and take more active roles in this context and thereby are more apt to produce the target language.

New OTL Framework Including ELL-Sensitive OTL Indicators

Based on this review of the literature, it was evident that previous OTL models lacked specific guidance in identifying opportunities that are particularly predictive of ELL achievement. Needed were constructs that capture the process and content factors that are particularly sensitive to the instructional needs of ELLs, such as access to, and guided instruction in, academic registers and other linguistic supports designed to provide students with greater access to the curriculum. The following framework (Figure 1) for investigating ELL opportunity to learn was developed to investigate the levels of OTL occurring in classrooms and the potential effects on student outcome. Newly added ELL-specific OTL indicators are highlighted in bold.

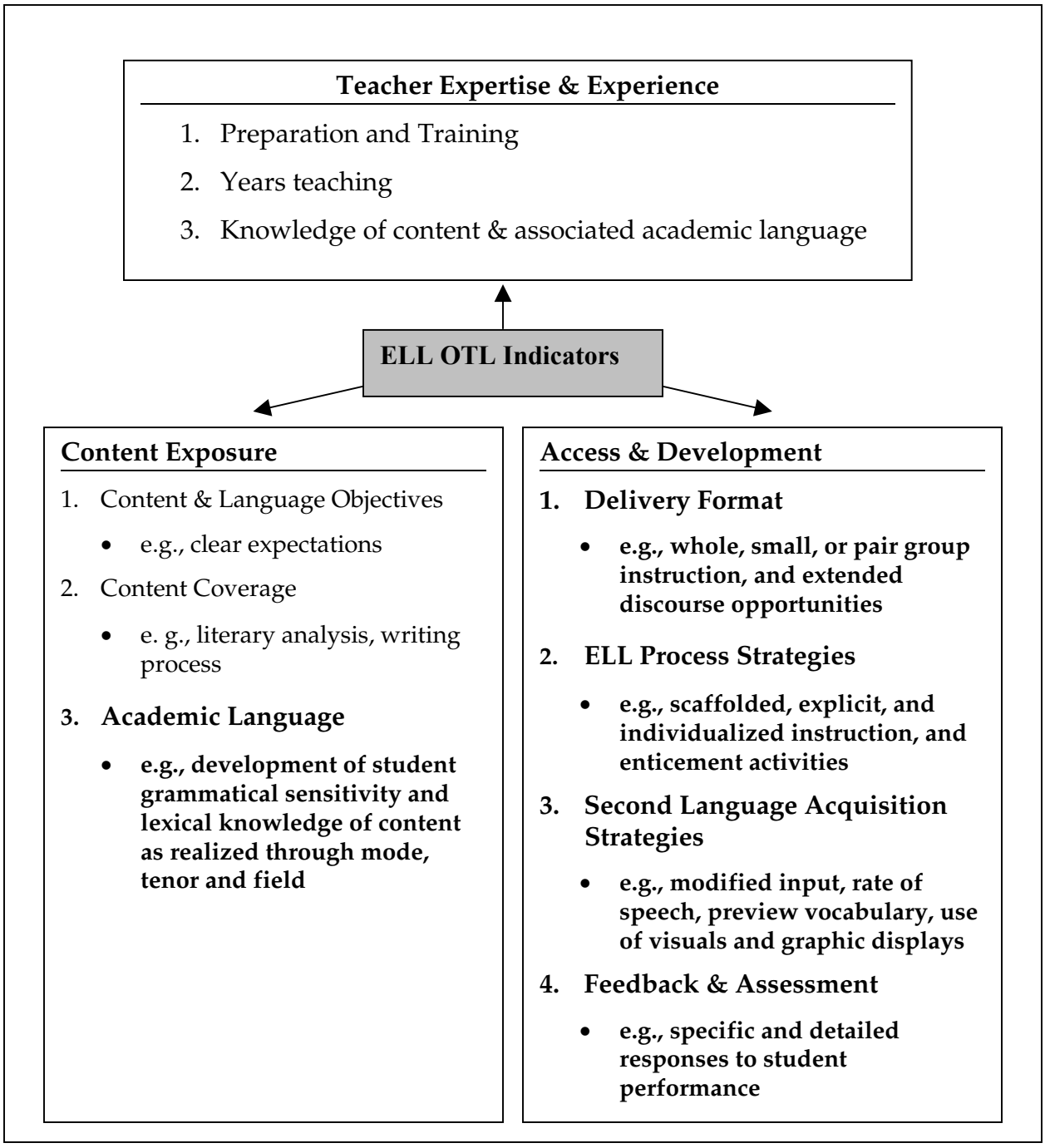

Figure 1. ELL-sensitive OTL framework.

Three general areas were investigated in the present study: (a) teacher expertise and experience, (b) content exposure, and (c) access and development. Each of these areas is expected to impact student achievement and is briefly described next.

As one of the indicators of teaching quality, the Teacher Experience and Expertise variable contains three dimensions, including: (a) preparation and

training, b) number of years teaching, and (c) content knowledge. The first two variables reflect general teacher quality, which is part of the Input indicator category of Porter's model; and the last one is intended to reflect course-specific teacher quality, which is part of the Process indicator category of Porter's model.

Teacher Experience refers to credential status, the number of years the teachers have been teaching in general, and the number of years teaching the content. These are teacher contextual variables that may impact pedagogical decisions and the level of instructional preparation a teacher undergoes before presenting the lesson. *Teacher Expertise* refers to the content and pedagogical knowledge teachers have acquired through pre-service and continued professional development activities.

In this model, content knowledge is comprised of both knowledge of content and ideas of the discipline as well as the linguistic structures that comprise the discourse of a given discipline—the academic language that is necessary to accomplish discipline-based tasks.

Content Exposure refers to the type and extent of the content topics covered in instruction, such as literary analysis, as well as the extent to which the teacher offers opportunities for the development of academic language. In addition, this variable refers to Content & Language Objectives, namely the clarity of teacher expectations as communicated to students regarding thier performance tasks. Of particular interest in this study is the degree to which teachers provide instruction that focuses directly on the language structures that comprise a given academic register. Expanding on previous CRESST work, content topics included both those related to English language arts (ELA), such as time spent on characterization as well as exposure to academic language pertinent to typical ELA content topics.

Exposure to Academic Language content is defined in this context as coverage of functional grammar in the presentation of ELA content topics. In particular, the degree to which teachers provided instruction on genre-specific language structures related to field, tenor, and mode to enhance students' understanding of content topics as well as develop their skills in articulating their knowledge or producing targeted genres.

Exposure to Content Coverage is defined as content topics covered in instruction that relate specifically to literary analysis (e.g., characterization, theme, etc.); reading (grade appropriate texts as well as reading text that reflects the genres targeted by the assessment); and writing activities. What distinguishes this variable

from academic language is that the topics that comprise this variable do not focus on explicit language instruction.

Access and Development refers to instructional styles and activities that increase access to the curriculum (e.g., the use of visuals, comprehensible input, etc.) as well as foster development of deep understanding, including feedback to students through informal (e.g., interactions that encourage negotiation of meaning) or formal classroom assessments. Pedagogical knowledge includes both delivery formats that foster learning for all students as well as those that are particularly relevant for ELLs, such as grouping configurations that foster language learning.

Delivery Format refers to various grouping configurations occurring in the classroom, whole- or small-group instruction as well as pair work. These delivery formats are either teacher or student led. ELL Process Strategies refers to specific delivery formats teachers use to meet the linguistic needs of ELLs, such as scaffolded, direct, and individualized instruction. Lastly, Second Language Acquisition Strategies refer to strategies borrowed from second language acquisition research that teachers use to reduce students' linguistic load while making the curricular content accessible. Some of these strategies include modified input, rate of speech, and use of visuals. These strategies differ from academic language instruction in that while they are designed to increase language acquisition by reducing the linguistic load (thus matching the students' language learning level), they therefore do not necessarily represent activities that expose ELLs to the grade level academic language they are expected to comprehend or produce in the classroom or assessment contexts. These strategies are particularly important for early language learning.

Feedback and Assessment refers to both formal and informal interactions that provide teachers with information they can use to inform subsequent instruction, encourage negotiation of meaning and prepare students for assessments. Consistent with Porter's (1991) view, the type and quality of feedback and assessment reveals consistency between instructional goals and desired student outcomes. Being able to clearly relay to students what is being learned involves knowledge about the misconceptions students may hold related to the subject matter. Thus, feedback and assessment strategies involve those processes that provide teachers with this kind of knowledge about students in order to build on what students already know. For ELLs, this includes active negotiation of meaning, as students' utterances in English may not reflect what they actually know. Further, processes that involve negotiation

of meaning also have the potential for creating the context that fosters continued language learning.

Research Questions

Based on our literature review, previous findings, and new ELL-sensitive OTL model, we investigated the following research questions in this study:

1. To what extent and in what ways are students being exposed to key OTL variables in classrooms?
2. What is the impact of academic language and other OTL indicators on ELLs' and non-ELLs' performance on LAPA?

The remainder of this report is organized as follows: the "Methods" section provides sources of data, description of instruments and procedures, and types of analyses selected for the study. The section entitled "Capturing Opportunity to Learn in Teacher Practice" reports on the findings related to the research question 1. "Results from HLM" presents the findings that address research question 2, and the final section presents the conclusions and discussion based on the findings.

METHODS

In order to address the research questions, we used a mixed-methods approach by incorporating both quantitative and qualitative analyses. In this section, we provide a description of the research design, instrumentation, and analyses used to address our research questions.

We knew prior to our investigations that direct instruction on linguistic structures that correspond to academic language would not be occurring in classrooms. Teachers are simply not provided with techniques for doing so in their credential courses (Wong-Fillmore & Snow, 2000). Given that one of our research interests was focused on examining the impact of ELL opportunity to learn academic language on student outcome, we needed to create an environment to study this explicitly. Therefore, we developed a 4-day teacher training program on instructional strategies to incorporate functional grammar in classrooms with a 2-day follow-up comprised of four modules to ensure some level of academic language instruction in classrooms.

Sample

Teachers

A sample of 32 language arts teachers from three urban middle schools in Southern California participated in the study. Out of 32 teachers, 21 teachers were assigned to receive professional training on a first-come first-served basis during the winter of 2004 (February or March) and additional follow-up training during the spring of 2004 (April or May). This group was over-sampled due to expected attrition rate and potential for low implementation.

As shown in Table 1, more than half of the teachers participating in the study were from Wood Middle School, the largest of the three schools. The total years of teaching experience ranged from 1 to 27 years with an average of 10 years for both comparison and trained teachers (see Table 2). In general, comparison and trained teachers were very similar in terms of their teaching experience. Comparison group teachers did have a slightly higher average number of years teaching sheltered English than the trained teachers.

Table 1

Number of Teachers by School

	Frequency	Valid percent
Wood	19	59.4
Casi	4	12.5
Los Niños	9	28.1
Total	32	100.0

Note. The names of schools are fictitious to retain anonymity.

Table 2

Background Information for Comparison and Trained Teachers

	Comparison			Trained		
Variable Category	*N*	*Mean*	*SD*	*N*	*Mean*	*SD*

Total years of teaching	12	10.04	7.34	20	9.55	8.58
Years at this school	12	4.63	4.04	20	4.50	4.12
Years of teaching English language arts	10	5.05	5.35	18	7.78	6.46
Years of teaching sheltered English	9	5.33	5.32	15	2.27	2.25
Exact No. English/LA courses – und	9	4.11	2.80	17	3.65	3.24
Exact No. English/LA courses – grad	12	2.25	2.80	14	2.93	3.05
No. courses - sheltered/SDAIE	11	2.91	1.58	18	2.22	1.63
No. courses – ESL	12	2.08	1.88	17	2.29	1.61

Although we only recruited language arts teachers, the majority of the teachers did not major in English or language arts as undergraduates (see Table 3). Twenty-four teachers did have teaching credentials. Only 20% of the trained teachers and 33% of the comparison teachers did not hold teaching credentials. Seven out of 32 teachers indicated that they either already had an advanced degree or were currently enrolled in a graduate program (see Table 3).

Table 3

Education Level

	Yes	No
Undergraduate major in English/language arts	7 (21.9)	25 (78.1)
MA - Eng/literature	2 (6.3)	30 (93.8)
Currently enrolled in MA program	5 (15.6)	27 (84.4)
Advanced degree (Ed.D., Ph.D., etc.)	2 (6.7)	27 (90.0)

Students

A total of 1,646 middle school students enrolled in language arts classes completed the Language Arts Performance Assignment (LAPA) at the end of spring 2004. Table 4 presents the number and percentage of students by key background

variables (i.e., grade level, gender, language proficiency, and ethnicity). Students with California English Language Development Test (CELDT) scores and a designated English Language Development (ELD) level were classified as ELLs in this study. In general, the background characteristics of students from comparison and trained groups were very similar. The proportion of ELL students was slightly higher in the trained group as compared to our comparison group. About half of the students in our study were designated as ELLs. Also, most of our students were identified as Hispanic.

Table 4

Proportion of Students by Key Background Variables

Variable category		Comparison		Trained	
		N	%	N	%
Gender					
	Female	327	56	372	53
	Male	260	44	326	47
ELL status					
	Non-ELL students	388	57	397	43
	ELL Students	290	43	531	57
Ethnicity					
	Hispanic	568	94	651	86
	White	7	1	27	4
	Asian	0	0	52	7
	Other	29	5	24	3
	Missing	74		174	
Total		678		928	

Procedure and Instruments

Teacher Training

For the teacher training we developed a teacher resource binder which included four modules. On each day of the 4 days of training, a different module was introduced. Within each module, several whole- and small-group activities (including role-play), designed to provide teachers with practice in the application of the concepts or strategies learned, were integrated into the presentation of the material. The first two modules targeted the concepts of the functional linguistic approach, and the third module addressed instructional strategies, including language analysis, writing revision lessons, the instructional conversation, and the readers' and writers' workshop. Module four, presented during the final day of the training was

dedicated to the analysis of student writing, and the collaborative development of lessons using functional linguistic concepts. The following provides a description of each of the modules.

Module 1. Module 1 introduced three main linguistic categories for analyzing written discourse (i.e., how language presents information in the text: field, how language builds the text structure: mode, and how language conveys the writer's point of view in the text: tenor) as well as the fundamental functional grammatical concepts including participants, processes, and theme/rheme. Because these concepts are easily conflated with traditional linguistic concepts, such as noun phrases, verbs, and subject/predicates, this module particularly emphasized the usefulness of using functional grammatical concepts as an effective tool for examining language in the context where it is used. Examples of analyzed written texts were provided to teachers in order to help them compare a functional linguistic approach with a traditional linguistic approach and ultimately see the analytical power that a functional grammatical approach can provide. However, this module did not completely discard traditional linguistic concepts. For instance, traditional linguistic definitions of phrases, clauses and sentences, with which teachers are already somewhat familiar, were used as a basis for developing their knowledge of functional grammar.

Module 1 also touched on how to conduct theme analysis as a means for evaluating written discourse, particularly in terms of the organization of the text at the paragraph level and the development of an interpersonal context.

Module 2. Module 2 started with a review of the linguistic and cognitive demands for written responses to literature suggested by the California Academic Standards and Framework for English language arts. A comprehensive functional linguistics approach to text analysis of written character studies followed, focusing on identifying specific linguistic features that correspond to the suggested cognitive and linguistic demands of the genre. The focus on the character study was important because it was the type of task that was used as the outcome variable in this study.

The presentation of text analysis followed the three general functional grammar categories introduced in Module 1 (field, tenor and mode). The first sub-section concerned the presentation of participants and processes and emphasized two things: (a) a well-written character study includes various types of processes, which encompass mental, attitudinal, and feeling processes that reflect the writer's evaluation and interpretation of the story, as well as action processes used in the

retell of the story; and (b) well-balanced references to characters other than the main character, as this balance is critical for depicting the main character's qualities as typically revealed in his or her interaction with others in the story. The second sub-section addressed clausal- and paragraph-level cohesion, in particular functions of various transitional expressions in relation to a character study (i.e., what functions transitional expressions perform in order to achieve cohesion, particularly in the context of a character study, for example those that mark time order, order of importance, compare and contrast, and cause and effect). The third sub-section discussed a number of techniques for expressing the writer's point of view implicitly, as this is characteristic of academic language. The techniques discussed in this section included how to choose words that intrinsically contain evaluative and affective content. Many examples excerpted from well-written character studies were also presented so that teachers gained insight into what they should strive for in student performance.

Module 2 also discussed linguistics elements that are consistent across other academic genres. Not only did this part of the module reiterate features of well-written character studies as a genre of academic writing in more general terms, but also introduced features of academic writing that are more broadly applicable to any genre of academic writing. Newly introduced in this section were (a) thematic progression analysis adapted from Mauranen (1996) which allows us to see patterns in the development of argumentation flow typical of English academic texts; and (b) types of grammatical metaphor such as nominalization, which are linguistic strategies that differentiate academic language from informal spoken language.

Module 3. Module 3 presented strategies for developing ELLs' skills in literary analysis and strategies for teachers to incorporate functional grammar in their writing instruction. The first section of Module 3 focused on analyzing both "model" and student text, and on using this information to elaborate on the revision stage of the writing process. Teachers and presenters together examined published text, such as students' textbooks, articles from newspapers, novels, non-fiction magazines, and student writing to analyze the patterns of linguistic choices authors use to realize meaning. Together they discussed how students can utilize this process to develop a repertoire of linguistic writing patterns to use in their own writing.

Teachers then worked on developing writing revision lessons that respond to their analysis of model and student writing (Greenleaf & Freedman, 1993). They used a framework based on the work of Greenleaf and Freedman which

incorporates a three-step process, including (a) orientation, where the teacher introduces a particular student text to the class, its primary problem, and the revision process that will be used to improve it; (b) problem solving, where students and the teacher work together to revise the text; and (c) connection, where the teacher reinforces the transference of skills to students and their applicability in independent writing. The lessons, using a functional grammar approach, respond to lexical and grammatical weaknesses found in student writing. In the second section of Module 3, the instructional conversation (IC) approach was presented as a strategy for improving students' ability to conduct literary analysis. It is a model of interaction that uses a small-group format (5-7 students) to create opportunities for students to engage in thoughtful, reflective, sometimes provocative discussions about ideas, texts, and concepts (Genesee, Lindholm-Leary, Saunders, & Christian, 2004; Goldenberg, 1993; Saunders & Goldenberg, 1999). The goals of the IC include:

1. Provide a forum for developing new understanding and constructing meaning from the text.
2. Improve the language skills and comfort levels of ELLs during which they can think, reflect, express ideas, and argue positions as they develop new understandings around a text.
3. Develop higher-level cognitive skills, rather than factual recall.

Finally, the readers'/writers' workshop (R/WW) was presented at the end of Module 3 to provide teachers with an overall instructional framework for implementing functional grammar. In the reading workshop, students had time to read in class, choices of books or other materials, access to books and materials, and opportunities for interaction. With a focus on student independence gained through utilization of the writing process, the writing workshop provided students with routines and linguistic and stylistic resources available to real world authors (Graves, 1983).

The rationale for including these approaches in the training was to provide teachers with instructional processes that support ELL development of literary critique and academic writing (Allen, 1995).

Module 4. In order to deepen teachers' knowledge of student writing patterns, Module 4 presented prevailing linguistic features of a character study found in English language learners' writing samples and identified specific areas of instructional support. In this module, teachers further developed plans for targeting ELL writing development. Specific areas of instructional need were discussed on the

basis of the following features of ELLs' character studies: (a) minimal references to characters other than the main character; (b) lack of a vocabulary repertoire that can be used for implicit expression of personal opinions and stance; (c) lack of cohesion as evidenced by monotonous theme choices (e.g., overuse of pronouns in theme position, and lack of adverbial expressions in theme position); (d) overuse of easy connectors such as "and," "so," and "because"; (e) lack of nominalization and expanded noun phrases that results in low lexical density; (f) failure to build an impersonal interpersonal context as exemplified by the use of oral discourse markers (i.e., well), and first- and second-person references; and (g) general lack of evaluation as manifested by the overuse of action processes.

In addition to the modules, the training materials also included a selection of articles and book chapters pertaining to functional linguistics, writing instruction, ELL literacy development, and effective ELL strategies. While these readings came from a variety of sources, we attempted to include those that were particularly "reader-friendly" and that did not rely on technical jargon. Some selections were assigned as homework, with the first 30 minutes of each morning spent discussing the implications and issues addressed in each. The remaining selections were provided to teachers as additional resources if they felt a need or desire to delve deeper into the concepts and issues addressed in the institute beyond what was addressed in the week-long training. Evaluation of training effectiveness was conducted at the completion of the training. More information on training effectiveness is provided in Appendix A.

Student Assessment

The primary outcome measure for the study was a curriculum-embedded performance assessment designed to assess student understanding and skills in language arts. The Language Arts Performance Assignment (LAPA) was modeled after previous CRESST work and has undergone validation studies (Niemi, Sylvester, & Baker, 1998). In this assessment, students were asked to select a literary piece that contains a heroic character and describe the qualities of that character in writing, citing detailed information from the literary work. Among the characteristics they could write about were: physical and personality traits, thoughts and motivations, and relationships with other characters. Thus, students were expected to analyze the story beyond the surface features of the plot and support all

assertions about the text with accurate and supporting citations (See Appendix B for the LAPA writing prompt.)

Students were also expected to go through the stages of the writing process in 5-10 hours of class time over the course of 1-2 weeks with support from the teacher in the form of mini-lessons. If groups of students had difficulty with elements of the writing assignment, the teacher was allowed to provide a short 15- to 20-minute lesson to help them get through the assignment. Assistance, however, did not include direct feedback, such as editorial suggestions or the teacher's interpretations of the text.

Scoring Student Work

Rubric Development

In addition to the holistic scoring rubric (see Appendix C) that was developed and validated in previous CRESST work (Boscardin et al., 2004), three additional dimensions evaluated on a 3-point scoring rubric were developed to evaluate student writing for this study. These dimensions evaluate students' performance on the LAPA based on the linguistic dimensions identified by the systemic functional linguistics approach utilized to operationalize academic language as noted above. While the existing CRESST rubric utilizes such holistic evaluation criteria as the clarity of character description, text-based support of argumentation, logical organization of ideas, and appropriate use of grammar, the systemic functional linguistics scoring rubric (heretofore referred to as "functional grammar") specifically focuses on assessing students' linguistic command of grammatical structures that are directly related to the written response to literature genre in general and specifically to characterization.

The functional grammar dimensions aim to assess students' skills for effectively making use of the linguistic choices essential for successful characterization. The three linguistic dimensions are identified and classified according to their functions and presented in Table 5 below.

Table 5

Description of Dimensions

	Language	Function
Dimension 1: Noun phrases	Expanded noun phrases	Describe persons, animals, things, and concepts
Dimension 2: Lexical density	Adverbial expressions	Provide circumstantial expressions
Dimension 3: Characters and references	Tracking of participants	Achieve well-balanced participants

The assessment of students' linguistic command of each linguistic dimension was based on the following evaluation criteria. For Dimension 1, noun phrases were examined with regard to the frequency of occurrence, the variety in the choice of grammatical elements used to modify a main noun, and the level of elaboration through various linguistic processes such as embedding. For Dimension 2, adverbial expressions were examined using similar criteria. The frequency of occurrence, the variety of grammatical form choices that constitute adverbial expressions, and the level of lexical density achieved through adverbial expressions were considered for evaluation. For Dimension 3, references to characters and other text participants were evaluated in terms of the variety of positions where they appeared (e.g., in subject position, in object position, or in complement position). Whether the writer displayed a control of references to various characters was also used as a criterion for this dimension. The functional grammar rubric is found in Appendix D.

The Scoring Session

Preparation for an LAPA scoring session. A total of 1,646 student responses were evaluated during the 8-day LAPA scoring session. To minimize rater bias, all identifying information (i.e., students' names, student ID numbers, teachers' names, and school names) was removed from the student responses. Responses were numbered sequentially (i.e., 1 through 20), randomly distributed, and divided into 84 packets containing 20 responses each.

Thirteen raters (seven CRESST researchers and six middle school teachers) participated in the scoring session. Half of the teachers had participated in the writing institute, representing each of the schools involved in the study.

Holistic scoring. Following the same general format described in previous CRESST work (Boscardin et al., 2004), scoring sessions began with a description of

the context of the project and the purpose and history of the LAPA. Although the raters were all familiar with the LAPA prompt and holistic rubric, they were asked to review them thoroughly once again. Following the review of the writing task and rubric, the raters read and discussed the anchor papers that represent three performance levels (score 2, 3, and 4 papers[1]), starting with Anchor 2. The discussion centered on qualities of performance described in the rubric, and special attention was given to identifying distinctions in the quality of performance between Anchor 2 and Anchor 3, and between Anchor 3 and Anchor 4.

Once anchor papers were discussed, and before raters began scoring student work, the raters were asked to practice applying the scoring criteria by individually scoring a set of six practice papers (i.e., student responses that had been previously assigned scores by expert raters). As was the case with the anchor papers, the purpose of this practice set was to achieve high rater agreement. After scoring the practice papers individually, the raters discussed their qualities in reference to the rubric and anchor papers. Any major discrepancies were discussed thoroughly.

Analytic scoring. Analytic scoring was based on functional grammar concepts. Except for three teachers who had not participated in the writing institute, all the raters were already familiar with the functional grammar concepts that were used as a basis for the functional grammar rubric evaluation criteria. Nonetheless, major functional grammar concepts were presented again prior to a rater calibration procedure for analytical scoring similar to that of the holistic training described above. In this presentation, raters were provided with the functional grammar scoring guidelines developed specifically for the functional grammar scoring training. The functional grammar scoring guidelines explained each of the three domains of functional linguistic skills in great detail. In order to help the raters' judgment in measuring students' linguistic skills and knowledge, strong and weak examples of target linguistic items were provided.

Subsequently, the functional grammar rubric was distributed to the raters and was explained once again in reference to the functional grammar scoring guidelines. Once the raters indicated their familiarity with the functional grammar rubric, they were provided with five sets (one set for each functional grammar dimension) of anchor papers selected by the CRESST researchers. Originally, each set of anchor papers included four student responses that represented each score point (i.e., 1

[1] Since each anchor paper represents the lowest possible performance level for a given score point, an anchor paper reflecting a score of 1 is not needed (see Boscardin et al., 2003).

through 4 for each functional grammar domain). After initial evaluation of the scoring rubric, however, the measurement scales for each of the dimensions were reduced to 3-point scales, and anchor papers were adjusted accordingly.

After 2 consecutive days of the LAPA scoring training, the raters scored student responses. The raters were provided with scoring sheets to record the six separate scores (i.e., one holistic score and five functional grammar scores) for each of the twenty responses in one packet.

In order to ensure consistent reliability of the LAPA scores, a total of 9 "check" papers were scored each at different points during the LAPA scoring. If exact agreement fell below 70% on any of these check papers, it was discussed to determine the nature of the disagreement and recalibrated accordingly.

When raters were finished scoring their first or second packet, we asked them to score the "reliability set" that comprised 30 randomly selected student papers in order to conduct a generalizability study on the scores.

During the 8-day scoring session, there was slight attrition in the initial group of raters, and Dimensions 4 (evaluation, analysis) and 5 (impersonal structure) were excluded from evaluation for logistical reasons (e.g., time constraints) as well as lower agreement rates on these dimensions.

Reliability of LAPA Scores

In order to check for reliability of the LAPA scores, we conducted a generalizability study (G-study) with all trained raters on 30 randomly selected student assessments for each of the four rubric dimensions that were used. G-studies provided a closer look at the different sources of error (variability) in the scores and their relative importance, as well as the overall reliability of the scores. To examine the reliability of LAPA scores, we investigated specifically the amount of variability in scoring due to raters. The results from the G-studies suggest that the rater reliability and the overall LAPA scores were generally high.

As shown in Table 6, for holistic scores, raters accounted for only 3.5% of the variability in the scores. Also, the variability in the scores due to raters was also very low for both Dimension 1 and Dimension 2 (7.6% and 4.1%, respectively). Although the variability due to raters was relatively higher for Dimension 3, it was still within the acceptable range.

Table 6

G-study Results for LAPA Scores

	Holistic	Dimension 1: Noun phrases	Dimension 2: Adverbial expressions	Dimension 3: Tracking participants
Var (rater)	0.02 (3.5%)	0.03 (7.6%)	0.01 (4.1%)	0.06 (17.2%)
Var (paper)	0.27 (50.4%)	0.18 (46.1%)	0.11 (33.5%)	0.10 (28.7%)
Var (paper*rater)	0.25 (46.0%)	0.18 (46.3%)	0.20 (62.3%)	0.18 (54.1%)

Teacher Opportunity to Learn Survey

Teachers who administered the LAPA assessment also completed a teacher survey intended to capture critical aspects of OTL. The survey (found in Appendix E) contains five sections that include: (a) content exposure, academic language coverage; (b) content exposure, ELA content coverage; (c) access & development, ELL process strategies; (d) feedback & assessment; and (e) teacher experience and expertise. A brief description of these five areas follows.

Content exposure: Academic language coverage. Within the survey, academic language was operationalized as instruction in the grammatical features needed to realize particular school-based writing genres. There were six specific items teachers responded to that measured students' content exposure to academic language. Teachers were asked to rate the average frequency in which they provided explicit instruction in various academic language topics in order to encourage students' writing development. Each topic represented a grammatical feature related to one of the three metalinguistic functions, field, tenor, or mode. Example items in which teachers rated frequency of coverage include: "verb choices that signal analysis of a character or situation" and "grammatical structures that generate an impersonal tone." Teachers responded on a six-point scale, ranging from "Never" to "2 or more times per day." These items are directly aligned the with assessment. However, they were narrower in scope and targeted aspects of academic language described in the literature review section (e.g., long noun phrases and verb choices). The items also mirrored those included in the set of items targeting teacher content expertise.

Content exposure: ELA content coverage. This variable was operationalized with nine questions that solicited information on the amount of class time spent

learning, or doing activities, related to literary analysis in both oral and written modes. Teachers reported time spent on these topics on a six-point Likert scale, ranging from "none at all" to "4 or more weeks" spent on each topic. Topics ranged from "summarizing the plot of novels, plays, or short stories" to "writing about heroic qualities of characters, sacrifices they make, or how they are courageous." These questions relate to topics directly targeted by the assessment and are consistent with the items associated with teacher content expertise.

Access & development: ELL process strategies. The survey addressed variables that comprise access and development in a manner that conforms closely to the Sheltered Instruction Observational Protocol (SIOP) with its focus on sheltered instruction (e.g., use of supplementary materials, linguistic adaptation of content, etc.). The items were developed to reflect the general areas of the SIOP as described in the literature section. Due to space constraints, ELL process strategies and second language acquisition (SLA) strategies were collapsed into one variable for analysis. Questions targeting this variable centered on how frequently teachers used strategies to make the curriculum accessible to ELL students and how frequently they provided students with opportunities for extended discourse within various grouping configurations. For curriculum accessibility, the survey asked teachers how often they used supplementary materials, adapted content, linked concepts to students' background knowledge, adapted teacher talk, and scaffolded instruction. To gather information on how frequently teachers provided opportunities for students to engage in extended discourse, the survey asked about student-to-teacher interaction, student-to-student interaction, and opportunities to clarify ideas in the primary language. Due to space constraints and small teacher sample size, delivery format was not directly captured by the teacher survey.

Feedback & assessment. This construct was operationalized in terms of teacher use of classroom-assessment data as well as the type of feedback teachers provided their students. In terms of assessment data use, four items asked teachers to report on the frequency with which writing assessments were used to assess students' understanding of literary elements, grammar, vocabulary, organizational skills, and spelling/punctuation. In terms of feedback, four items asked teachers to report on the frequency with which they provided feedback to students on their writing performance in relation to academic language concepts. Teachers were asked to respond to both sets of questions on six-point scales with 1 representing "never" to 6 representing "almost everyday." Examples of items include: "Provide feedback to

students on their understanding of the role of paragraphs or sentences to support the writer's purpose (e.g., provide background, detail, and analysis)" and "Provide feedback to students on their understanding of vocabulary (e.g., verbs, adverbs, and adjectives) that reveals analysis of characters or situations." Due to the lack of significance this construct obtained in previous CRESST work, these items were modified to reflect the specific writing skills students need in order to do well on the assessment.

Teacher experience and expertise. The survey measured three dimensions within this variable, including (a) preparation and training, (b) number of years teaching, and (c) content knowledge. Teachers' levels of preparation in the course content and pedagogy was operationalized in the survey in terms of the number of college level English language arts courses they had previously completed, and whether or not they received a graduate degree. Teachers were asked to report the number of courses completed that were directly related to the content of the assessment. They were also asked to indicate if they had completed a master's degree and to state specifically in what area this degree was granted. The idea here was that teachers with a master's degree in English literature would be better prepared to teach language arts than teachers without a master's degree or one in an unrelated field. To obtain a more complete picture of the degree of training, teachers were also asked to list recent professional development related to language arts. In addition, to capture the second experience variable, teachers were asked to report on the number of years they had been teaching.

The third set of questions was related to the level of teacher expertise in content topics specifically targeted by the assessment, specifically knowledge involved in literary analysis. These questions consist of two categories: expertise in content typical of standards-based English language arts curriculum and expertise in content tailored for ELLs. As featured in previous CRESST work (Aguirre-Muñoz, Kim-Boscardin, & Herman, 2002; Boscardin et al., 2004), general content expertise items included teachers' self-reports of knowledge related to literary elements such as theme and characterization. Content knowledge needed to support the learning needs of ELLs included knowledge of linguistic elements that comprise the kind of writing targeted by the assessment, response to literature. Since the definition of academic language knowledge in this study is based on functional grammar concepts, these items reflect this perspective. Teachers were asked to rate their level of expertise on 10 different items as either "novice," "adequate," or "expert."

Reliability of Teacher OTL Survey

To ensure technical quality of the items on the teacher survey, we examined the reliability and the construct validity. The reliability of the items was evaluated using an internal consistency measure. Internal consistency measures are indicators of how well the items for each construct relate to each other. For a good measure of internal consistency, the alpha coefficient should be fairly high (e.g., > 0.80). The items on teacher experience were excluded from the analysis since the responses were directly translated into number of years.

As shown in Table 7, the Cronbach alphas obtained for the five constructs (excluding the year of teaching experience) ranged from 0.86 to 0.95. These alphas provide evidence of high reliability across the five constructs.

Table 7

Reliability Coefficients for Teacher OTL Survey Subscales

Content	N	Item no.	Alpha
Teacher content expertise	29	9a, 9b, 9c, 9d, 9e, 9f, 9g, 9h, 9i, 9j	0.95
Content exposure: ELA content coverage	32	10a, 10b, 10c, 10d, 10e, 10f, 10g, 10h, 10i	0.93
Content exposure : Academic language	28	11a, 11b, 11c, 11d, 11f, 11g	0.89
Feedback and assessment	28	12a, 12b, 12c, 12d, 12e, 13f	0.93
ELL process strategies	30	13a, 13b, 13c, 13d, 13e, 13f, 13g, 13h, 13i	0.86

To examine the construct validity of the survey items, we conducted confirmatory factor analysis (CFA). Factor analysis is most appropriate for determining whether the items on the survey adequately captured the dimensions targeted. Nunnally (1978) suggested that "factor analysis is intimately involved with questions of validity… Factor analysis is at the heart of the measurement of psychological constructs" (pp. 112-113).

Table 8

Confirmatory Factor Analysis for Teacher Survey

Content	Construct	Item No.	Estimates	S.E.	Est./S.E.
Teacher content expertise	(α = .95)	9a	1.00	0.00	0.00
	(N = 29)	9b	0.93	0.04	23.69
		9c	1.12	0.07	16.46
		9d	0.98	0.10	9.98
		9e	0.84	0.07	11.76
		9f	0.63	0.07	9.63
		9g	0.89	0.09	9.91
		9h	0.77	0.09	8.28
		9i	0.96	0.07	14.17
		9j	1.08	0.07	15.94
Content exposure: ELA content coverage	Reading	10a	1.00	0.00	0.00
	(α = .93)	10b	1.25	0.14	9.04
	(N = 32)	10c	1.22	0.14	8.79
		10d	1.37	0.15	9.03
		10e	1.38	0.17	8.23
		10f	1.34	0.16	8.41
		10g	1.18	0.13	8.97
		10h	1.30	0.15	8.47
		10i	1.33	0.14	9.25
Content exposure : Academic language	(α = .89)	11a	1.00	0.00	0.00
	(N = 28)	11b	1.05	0.19	5.58
		11c	1.17	0.21	5.55
		11d	0.52	0.15	3.53
		11e	1.18	0.17	7.06
		11f	1.60	0.28	5.70

Table 8 (continued)

Confirmatory Factor Analysis for Teacher Survey

Content	Construct	Item No.	Estimates	S.E.	Est./S.E.
		11g	1.07	0.21	5.19
Feedback and assessment	(α = .93)	12a	1.00	0.00	0.00
	(N = 28)	12b	0.97	0.06	17.33
		12c	0.92	0.07	13.96
		12d	0.73	0.07	9.77
		12e	0.83	0.10	8.21
		12f	0.80	0.10	8.36
ELL process strategies	(α = .86)	13a	1.00	0.00	0.00
	(N = 30)	13b	0.52	0.13	4.06
		13c	0.78	0.12	6.30
		13d	0.57	0.14	4.09
		13e	0.94	0.11	8.28
		13f	0.83	0.13	6.16
		13g	1.06	0.12	8.64
		13h	0.91	0.13	7.14
		13i	0.69	0.14	4.83

Traditionally, exploratory factor analysis (EFA) is used to determine the number of factors or constructs that best describe the relationships among the items. However, the purpose of EFA is usually for theory generating rather than to test the quality of the proposed structures of the items. Confirmatory factor analysis (CFA), on the other hand, is traditionally used to test whether the items are sufficiently representing the specified constructs or content domains.

As shown in Table 8, the results of the CFA suggest that the items in general seem to be adequately measuring the proposed constructs. The good model fit indices and high factor loading all indicate that the items have high internal consistency and factorial validity of the constructs.

Teacher Observation Protocol

In addition to administering the teacher surveys, CRESST researchers observed classrooms of participating teachers at two different time points to gather OTL data. Initially, a total of 21 teachers were observed in classrooms approximately 2 months after the writing institute (Time 1). The same group of teachers was observed again during the LAPA preparation period (Time 2) along with six additional teachers. Teachers were observed for two consecutive lessons. These lessons were focused on elements that corresponded to the OTL instrument as well as more in-depth information about teacher practice.

Observations of instructional practice were conducted using the Sheltered Instruction Observation Protocol (SIOP) developed by Jana Echevarria, and her colleagues (see Echevarria, Vogt, & Short [2000] for validation information). This tool was designed to capture the extent to which teachers' instructional practices reflect the features of effective sheltered instruction such as comprehensible input, building background, and metacognitive strategies (see Echevarria et al. for a detailed description). The observation protocol was also adapted to meet the needs of the current study by reflecting the new ELL-sensitive OTL model with inclusion of items related to academic language instruction (see Appendix F).

Content exposure: Academic language coverage. Two questions on the observation protocol were utilized to address this variable, both directly focused on students' level of exposure to functional grammar in classrooms. The first item asked observers to rate the degree to which student activities facilitated the application of language concepts in the classroom generally, and the second item asked observers to rate teachers' instruction of specific grammatical features. For the first item, observers rated teacher's provision of language related activities on a scale from "highly evident", meaning the teacher provided activities for students to apply language knowledge in the classroom, to "somewhat evident," where the teacher provided activities for students to apply either content or language knowledge in the classroom, to finally, "not evident," where the teacher provided no activities for students to apply content or language knowledge in the classroom. The second question that addressed this variable included six sub-questions. For each of the six sub-questions, the observers rated teachers on whether particular functional grammar principals were addressed in the classroom during the observed lesson to "a great extent," "some," or "barely covered." These functional grammar principals include (a) use of various clauses and phrases in theme position to create sentence

variety; (b) use of adjectives, verbs, and adverbs to reveal the writer's evaluation; (c) use of various verb types to provide textual interpretations; (d) use of connectors and expanded noun phrases to build cohesion; (e) use of model verbs that frame the writer's point of view; and (f) use of grammatical features such as expanded noun phrases to generate an impersonal context.

Content exposure: ELA content coverage. This variable was not directly measured in the observation protocol, as it focused mainly on the variables related to Access and Development, and Academic Language. Yet observers did regularly witness students being exposed to ELA content topics, as indicated by their field notes. These notes have provided additional information for the analysis of patterns in teacher practice. From these records we have been able to closely examine learning opportunities occurring in the classrooms, as well as the nature of the literary analysis, reading, and writing activities in which students participated.

Access and development. In the observation protocol, seven items were included for qualitative analysis (described in section titled "Capturing Opportunity to Learn In Teacher Practice") reflecting various teacher practices related to this dimension. Five of these items targeted SLA strategies, namely different forms of comprehensible input; one item targeted delivery format (grouping configurations), and the final item related to ELL Process strategies (scaffolded instruction). Observers rated teacher practices on a 5-point Likert scale, ranging, for example, from 1 representing "speech inappropriate for students' proficiency level" to 5 representing "speech is appropriate for students' proficiency level (e.g., slower rate and enunciation and simple sentence structure for beginners)."

Feedback and assessment. This dimension of instruction was addressed by judging the quantity and quality of teacher assessment and feedback to students based on students' oral output. Judgments were reported on a scale ranging from 0 indicting that the teacher "provides no meaningful, specific feedback to students on their output" to 4 indicating that the teacher "regularly provides meaningful, specific feedback (e.g., language, content, or work)" to students. For assessment practices, judgments were also reported on a scale ranging from 0 indicating that the teacher "conducts no assessment of student comprehension and learning of lesson objectives" to 4 indicating that the teacher "conducts assessment of student comprehension and learning of all lesson objectives (e.g., spot checking, group response) throughout the lesson."

Data collection. This protocol allowed the research team to focus attention on gathering evidence of effective sheltered instruction and simultaneously collect information on the level of exposure to academic language.

Additionally, observation field notes were taken to obtain a more complete picture of classroom processes to contextualize information gleaned from the analysis of the SIOP and teacher interview data. As discussed below, the results of observation data (i.e., SIOP data and field notes) analysis, survey data, and teacher interview findings were triangulated in order to identify the OTL factors that impact ELLs' academic achievement.

To achieve high inter-reliability amongst researchers, the research team participated in an observer calibration session prior to site visits that involved the use of video-taped lessons, discussions around key constructs and practice observations at one of the pilot-testing sites. Further, during site visits for the study, a pair of observers teamed up, observed a teacher, and filled out a SIOP form together after a thorough discussion of the observed classroom practices.

For quantitative purposes, the items in the observation protocol were grouped into two larger inclusive constructs called "teacher's effectiveness at providing clear content expectations," and "engagement in enticement activities." These constructs were then analyzed to determine their relationship to student outcomes. The findings of the quantitative analysis are described in the section "Results from HLM."

Teacher Interview Protocol

Interviews with participating teachers were conducted using a modified version of a semi-structured interview protocol previously developed by CRESST (Griffin, Aguirre-Muñoz, Goldschmidt, Amabisca, Miyoshi, Swigert, & Trusela, 2003). The modified version was designed to correspond to the ELL-sensitive OTL model by gathering information on the background experiences of teachers, the implementation status of academic language instructional strategies, use of ELL-specific classroom processes, and other information relevant to the current study (see Appendix G).

For the qualitative analysis, which focuses on patterns of teacher practice and levels of classroom OTL, we reviewed teacher responses to particular items from the interview protocol and analyzed them in line with the various constructs. This

operationalization of the OTL constructs in the interview protocol is further described below.

Content exposure: Academic language coverage. The interview protocol addressed this variable with questions targeted at academic language instruction, and for trained teachers, additional questions about the classroom application of CRESST writing institute concepts. These included questions such as, "How do you prepare ELLs to process academic language?" and "Which activities/strategies have you used from the institute so far?" Researchers also reviewed teacher responses to questions pertaining to the observed lessons, which had often led to a discussion of typical classroom practices, including whether or not they regularly included academic language instruction in their practice. Answers were then coded for specific grammatical features or functions, including: "grammatical structures that build cohesion," "vocabulary that reveals interpretation," "long noun phrases to increase sentence variety," and "overall essay cohesion and organization."

Content exposure: ELA content coverage. ELA content coverage is operationalized in the interview protocol and transcript-coding schema as instructional content related to literary analysis, general reading activities, the writing process, and general writing activities that did not directly address academic language from a functional grammar perspective. Activities and instruction related to academic language as defined above was coded instead for academic language coverage. While questions did not target ELA content coverage directly, in the interview protocol the questions related to teachers' descriptions of observed lessons provided the most information on ELA content coverage. Teachers were asked how the lessons fit into the development of the unit in which they were situated, and the overall purpose of the instructional unit. In this way, researchers were able to detect the types of topics covered in the classrooms. A few questions from the ELL-specific constructs in the interview protocol also provided information on ELA content coverage. Examples of these questions include: "Give an example of how you have your ELL students carry out oral and written tasks that require the following: comparison/contrast, description, explanation, and definition" and "Which specific strategies have been most successful with low proficiency ELLs and moderate proficiency ELLs?" While this second question targets instructional strategies as opposed to content, many teachers described the types of content they covered in order to improve the achievement of ELLs in English language arts. Teacher responses about classroom content coverage were coded to indicate whether the

content was related to reading or writing. These categories were then further divided into sub-content areas such as reading comprehension, literary analysis, reading practice, pre-writing, revising, and writing practice.

Access & development. In the interview protocol, there were four questions specifically targeting teacher practices intended to support students' second language acquisition, in particular, students' opportunities for extended discourse. These questions asked teachers to describe the *types* of opportunities for extended discourse they provided students, the type of *circumstances* in which these opportunities arose, and their *frequency*, including frequency of pair and group work. Additionally, the interview protocol included questions that solicited information on teachers' delivery format by prompting them to describe the last time their students worked together within a small group setting. Teacher responses to these items provided information on the levels and quality of this OTL variable. Teachers' descriptions were coded to indicate the instructional format (student grouping) and the specific type of strategies used that were relevant to the access and development variable, such as comprehensible input, graphic organizers, and link to student background.

Feedback & assessment. The interview protocol focused on how teachers prepared students for the LAPA assessment with items specifically related to LAPA preparation. These questions targeted teacher practices in relation to OTL by asking them to report on their use of instructional modifications to accommodate ELL learning needs (process strategies), and to report on student content exposure by asking how students were prepared for the LAPA (content coverage). Additionally, questions soliciting information on the lessons observed during the LAPA writing period were informative for this construct, as they provided both detailed information on particular lessons, and general patterns of classroom practice during the assessment period.

Teacher experience and expertise. To check for consistency with the survey responses, teachers were asked specifically how many years they had taught, whether they had a credential, and if so, what type (e.g., BCLAD or CLAD). Teachers' answers were coded with their credential status and credential type. Correspondingly, teachers' responses indicating their number of years teaching were coded into five categories including: less than 1 year, 1 to 2 years, 3 to 5 years, 6 to 10 years, and 11 or more years. Since the purpose of the interview was to obtain

more detailed information regarding teacher practices, information about teacher content expertise was not addressed in the interview.

Teacher Interview Data Collection

Each teacher was interviewed during each of the two classroom observation time points (Time 1 and Time 2). The audio-taped interviews were then transcribed and coded according to a coding scheme developed primarily based on response patterns in teachers' ELL-specific instructional strategies, LAPA preparation, the writing institute, and functional grammar concepts. Table 9 presents a sample of codes used for analyzing the teacher interviews.

In order to maintain coding consistency, each of two researchers independently coded a set of interview transcripts, reviewed each other's preliminary codes, and refined them further in consultation with each other. This process of code refining continued until researchers reached a 76% agreement rate.

Table 9

Sample of Codes Used for Teacher Interview Analysis

Code	Description	Example
Teacher expertise	Comments regarding teachers' credential status and teaching experience.	Q: What's your credential status, what kind of certification do you have? R: I have a life credential. Q: Do you have a CLAD or a BCLAD? R: I have a CLAD.
ELL population	Comments regarding the size of the ELL population in the classes.	Q: How many English language learners do you teach? R: I probably have about 10 to 12 in different classes; they are not all in one place.
Activities - Reading	Comments regarding instructional content and delivery pertaining to reading such as literary analysis and vocabulary building prior to reading.	In reading, I can get them excited about what we're into. I started off initially with short stories out of the literature book. We also have read *The Diary of Anne Frank*. We have prescribed things we have to teach.
Activities - Writing	Comments regarding instructional content and delivery pertaining to writing such as response to literature, writing process, writing conventions, etc.	Basically, we started the year out just by doing a lot of free writing like unstructured writing to get them used to thinking and getting their thoughts on paper….When we do our writing between our first and our final draft they also do peer editing where they have to read each others' papers.
Instructional formats	Comments regarding different instructional formats such as individual, small, or whole group.	They were supposed to read together, discuss what the plot was, and then they each had to do a graphic organizer. I think I got about on average three per class. They drift into other things. They just don't stay on task.
ELL strategies	Comments regarding ELL-specific strategies. Statements about various scaffolding techniques such as using graphic organizers and visual aids.	If the students are not getting it then we stop or switch gears or change direction, get more graphic, point to the picture in the book and say it again or whatever it takes.
Institute functional grammar	Comments regarding explicit instruction of academic language, such as teaching functional grammar concepts.	For our second paper, we might talk about adding adjectives. So after they do their rough draft they'll underline or highlight every noun in their paper, and then we brainstorm different adjectives and things like that on the board.
LAPA preparation	Comments regarding how ELLs were prepared for the LAPA, including statements about content areas covered and specific strategies used for the LAPA preparation such as teaching functional grammar, going over the writing prompt and rubrics, etc.	I began with an explanation of what they were going to be doing, and what the expected outcome was going to be. I explained the prompt, so they could understand exactly what they needed to do, and went over suggestions on how they can keep it together, and mini-lessons on prepositions and phrases that helped them to develop their paragraphs.

Teacher Rating

We used the interview data to develop two OTL variables related to coverage of academic language and inclusion of ELL process strategies for the quantitative analysis described in the section entitled "Results from HLM". Specifically, we rated teachers on their instructional practices in order to gauge students' exposure to academic language content coverage and ELL process strategies during their preparation for the LAPA. The decision to use the second observation time point was to increase our sample for the quantitative analysis. Interviewed teachers were rated on two measures. On each measure, teachers were given a score of 0, 1, 2, or 3.

First, we examined the extent and quality of teachers' academic language instruction, operationalized as functional grammar implementation. Second, the extent and quality of ELL process strategies was evaluated. The ratings were based on teacher responses to interview questions targeting how they prepared their students for the LAPA. To determine teacher ratings, researchers developed two rubrics (one for functional grammar and another for ELL process strategies), which were reviewed by the research team for coherence and consistency (Appendix H and Appendix I, respectively). Two researchers then assigned each teacher a score on each of the two measures by reading through interview responses queried for "LAPA Preparation," as well as by reading through Time 2 interview documents when the information in the query appeared incomplete. One of the researchers had previously viewed the students' averaged LAPA scores before the rating process, but did not consult this information while determining teacher ratings. The second researcher did not have any exposure to student LAPA scores prior to determining teacher ratings. The reliability between the two researchers on the functional grammar ratings was high at 86%, while the reliability for the ELL process strategies was lower at 54%. Here, reliability is defined as exact agreement between the two researchers. The lower reliability for the ELL process strategies was likely due to the fact that many classroom factors impacted the type of ELL process strategies appropriate for the different classrooms. As the raters had different initial knowledge of these circumstantial factors (e.g., number of ELLs in a given classroom and the range of student ELD levels effecting the extent to which teachers appropriately differentiated instruction), they at times rated teachers' ELL processes higher or lower than the other. After discussing the rating differences, the raters reached consensus on all of the academic language and ELL process strategy ratings. The current ratings represent this consensus.

Teachers were rated on two dimensions, depth and breadth, for both functional grammar and ELL process strategies. Depth refers to the level of accuracy and complexity in the specific ELL process strategies and the functional grammar concepts targeted for instruction, determined by the level of detail in teacher's descriptions of these practices. Additionally, depth refers to these concepts' level of integration into writing activities and expectations. For example, when determining the level of functional grammar implementation in a description of instruction targeted at expanded noun phrases, we considered whether instruction focused only in adding adjectives to modify nouns, or whether instruction also included other strategies for noun expansion such as the use of prepositional phrases and embedded clauses. For each functional grammar concept or ELL process strategy, we also examined the extent to which a teacher identified the particular problems in student writing that the strategy was meant to remedy.

The dimension of breadth refers to whether a variety of ELL process strategies and functional grammar concepts were targeted in instruction as well as the duration of such instruction. We considered whether the concepts were taught in a progressive nature (if concepts built upon one another) to expand the students' knowledge and skills of academic writing. We also looked at whether or not functional grammar was an important aspect of LAPA preparation overall and the extent to which teachers utilized ELL process strategies in this instruction. Figure 2 presents four example teacher profiles that illustrate each of the rating levels.

Rating 3	**The teacher:**
	• Taught functional grammar systematically over the 4-month period between CRESST training and administration of the LAPA.
	  • These features included nominalization, participial and prepositional phrases, subordinate and embedded clauses, expanded noun phrases, process (verb) variety, compound and complex sentences, and marked themes (the use of contextual and linking information before the subject).
	• Reviewed grammatical features during 2-week LAPA writing period.
	• Utilized systematic instructional procedure for teaching each targeted grammatical feature which was comprised of:
	  • Introduction to grammatical feature with explanation of its function in text, ideal patterns for usage, and common problems in student writing;
	  • Opportunities for students to practice identifying and using grammatical feature using a variety of techniques;
	  • Opportunities for students to practice using grammatical features in the creation of lengthier narrative and expository texts using the writing process, with a focus on the revision stage.
	• Made functional grammar concepts central to LAPA preparation instruction.

Rating 2	**The teacher:** • Implemented functional grammar instruction at various time points over the 4-month time period, covering a breadth of topics but not prioritizing class time writing practice. • Features included theme/rheme, expanded noun phrases, prepositional phrases, and process (verb) variety. • Grammatical features were reviewed during the 2-week LAPA writing period • Included a variety of functional grammar instructional processes including guided and individual identification of grammatical features in text, and the revision of text using targeted grammatical features. • Provided students with visual aids such as theme/rheme charts and word walls. • Provided students with opportunities to use grammatical features in writing paragraphs and extended text, instructing them to revise text for targeted grammatical features; the approaches are limited. • Provided verbal and written feedback to student writing focused on targeted grammatical features (e.g., expanded noun phrases and verbs). • Made functional grammar an important aspect of LAPA preparation instruction.
Rating 1	**The teacher:** • Provided little functional grammar instruction. • Functional grammar was the subject of one observed lesson during the 2-week LAPA writing period, which included transitional phrases to elicit different relationships between ideas. • Did not highlight functional grammar in LAPA preparation. • Focused writing instruction during the LAPA writing period and the 4 months prior on writing content and not language or grammatical structures. • Focused primarily on reading comprehension during writing instruction. • Provided students with (unspecified) writing structures during writing assignments. • Made functional grammar a minor aspect of LAPA preparation instruction.
Rating 0	**The teacher:** • Provided no functional grammar instruction during the LAPA preparation period or previously. • Language arts instruction focused on reading comprehension strategies and superficial aspects of writing, such as global essay structure and mechanics.

Figure 2. Example profiles of functional grammar instructional practices for each rating.

Analysis

As mentioned earlier, we used a mixed-methods approach to examine the research questions in this study. The mixed-methods design is described as research that incorporates both quantitative and qualitative data in a single study (Creswell, 2003). The mixed-methods approach is based on the theory that no single method adequately provides enough information to address the research problem and in this way each method reveals certain aspects of empirical reality (Denzin, 1978). Grounded in this theory, we have attempted to triangulate and incorporate all data sources into our statistical analyses as well as examine each data source separately. In this section, we'll briefly describe how the different data sources were utilized in our statistical analysis to address our research questions. In addition, we'll describe the methods used for analyzing the interview and classroom observation data.

Ordinal Logistic Hierarchical Linear Models

Responses to the OTL survey, interview data, and classroom observation data were analyzed in concert with student performance results using two-level ordinal logistic hierarchical linear models (ordinal logistic HLM). The factors influencing student performance occurred in the context of classrooms, which gave rise to multilevel data. Usually, students within the same classroom are affected by similar factors such as the teacher characteristics, educational resources, as well as the environment of the classroom. HLM models provided a systematic way to investigate how teachers, and specifically the OTL variables, influenced student outcomes and whether these variables have any differential impacts on ELL performance after adjusting for student-level variables. Given the four-point scale of the LAPA holistic score and the three-point scale of the three dimensions, we examined the relationship between LAPA scores and classroom differences characterized by OTL variables using ordinal logistic HLM. The final HLM model specified in our study is as follows:

p_m : Prob. (outcome category=m)

p_m^* : Prob. (outcome category $\leq$ m) = $p_1 + p_2 + \cdots + p_m$ (therefore, $p_4^* = 1$)

*Category 1 represents the probability of getting the highest LAPA score (4 for the Holistic score and 3 for Dimensions 1–3).

Level 1 Model

$$\log it(p^*_{1ij}) = \log\left(\frac{p^*_{1ij}}{1-p^*_{1ij}}\right) = \beta_{0j} + \beta_{1j}x_{ij} \qquad (1)$$

$$\log it(p^*_{2ij}) = \log\left(\frac{p^*_{2ij}}{1-p^*_{2ij}}\right) = \beta_{0j} + \beta_{1j}x_{ij} + \delta_{2j} \qquad (2)$$

$$\log it(p^*_{3ij}) = \log\left(\frac{p^*_{3ij}}{1-p^*_{3ij}}\right) = \beta_{0j} + \beta_{1j}x_{ij} + \delta_{3j} \qquad (3)^2$$

Level 2 Model

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(OTL_j) + u_{0j}$$
$$\beta_{1j} = \gamma_{10}$$
$$\delta_{2j} = \delta_2 \text{ and, } \delta_{3j} = \delta_3$$

γ_{00} represents the adjusted grand mean logit level for the highest category, holding constant the OTL level. Thresholds δ's are typically held constant across level 2 units. Therefore, the mean intercept for category ≤ 2 becomes $\gamma_{00} + \delta_2$. For category ≤ 3 of the holistic score, $\gamma_{00} + \delta_3$ represents the mean intercept. γ_{01} shows the increment in the mean level caused by a one unit change in the OTL, and it is the key parameter of interest in this study since this captures the effect of the OTL variables. The variable names and descriptions are presented in Tables 10 and 11.

[2] Equations 1 and 2 are the same across Dimension scores (1 through 3) and the Holistic score. However, equation 3 only applies to the Holistic score.

Table 10

Description of Student Level Indicators

Name	Description	Coding
Gender	Student gender	0 – Female 1 –Male
EL	Student EL status	0 –EL 1 -Non-EL
Grade 7	Grade level	0 -Grade 6 & Grade 8 1 -Grade 7
Grade 8	Grade level	0-Grade 6 & Grade 7 1- Grade 8
Hispanic	Student ethnicity	0-Other Ethnicity 1-Hispanic
LAPA	LAPA score holistic	1- Not proficient 2- Partially proficient 3- Proficient 4- Advanced
LAPA_D1	LAPA dimension 1[3]	1- Limited 2- Adequate 3- Proficient
LAPA_D2	LAPA dimension 2[4]	
LAPA_D3	LAPA dimension 3[5]	
CAT6_L	CAT6 Language	Normal curve Equivalent (NCE) score

[3] Describing persons, animals, things, and concepts/ expanded noun phrases.
[4] Providing circumstantial information/ adverbial expressions.
[5] Achieving well-balanced references/tracking of participants.

Table 11

Description of Teacher Level Indicators

Name	Description	Coding
Teacher level OTL indicators based on survey:		
Expert	Teacher content expertise	Continuous [2–6]
ELAcont	Content exposure: ELA content coverage	Continuous [1–6]
ELLcont	Content exposure: academic language	Continuous [1–6]
ELLprcss	Access and development: ELL process strategies	Continuous [1–6]
ASSESS	Feedback and assessment	Continuous [1–6]
Teacher level background information:		
Credential	Hold credential	0- No credential 1- Has a credential
NO COURSE	Number of English or language arts content and/or method courses taken in undergraduate and graduate studies	Continuous [0–16]
Graduate	Teacher has graduate studies	0- No graduate studies 1- Has graduate studies
Teacher level implementation indicators based on interview data:		
Functional grammar	Functional grammar implementation indicator	[0 –3]
LAPAELL	ELL strategies implementation indicator	[0 –3]
Teacher level sheltered instruction based on observation data:		
STE	Effectiveness at providing clear content expectations	[0–4]
Sengage	Engagement enticement activities	[0–4]
School level dummy variable:		
Los Niños	Los Niños School	0- Other school 1- Los Niños school
Casi	Casi Middle School	0- Other school 1- Casi school
Additional teacher level variable:		
TRT	Training	0-Comparison teacher 1-Trained teacher

Finally, based on the descriptive statistics, we found systematic differences in student performance by schools. This systematic difference was also found to be confounded by the proportion of ELLs in the schools (specifically in the classrooms). In order to control for these systematic differences and also to examine the impact of school characteristics on student performance, in our HLM models we controlled for initial school differences as well as proportion of ELLs in the classrooms.

CAPTURING OPPORTUNITY TO LEARN IN TEACHER PRACTICE

Section Overview

This section addresses our first research question: To what extent and in what ways are students being exposed to key OTL variables in classrooms? To address this question, we analyzed survey, observation, and interview data. While the survey data primarily measured the quantity of specific instructional practices aligned with OTL variables, the observation and interview data provided more information on the quality of those practices. In addition, the results from the classroom observations and teacher interviews revealed the nature and quality of knowledge and instructional tools teachers draw on to provide linguistic support to ELLs that can be linked to performance on the LAPA. Identifying such knowledge and tools brings to light contextual information necessary to develop an OTL indicator system that is sensitive to educational experiences unique to ELLs. In this section, we also present findings from our latent class analysis. The purpose of this analysis was to help characterize the response patterns of the teacher OTL survey.

In general, qualitative analysis revealed that the levels of OTL in classrooms for the following three variables: (a) content exposure, (b) access and development, and (c) teacher experience and expertise, were fairly low as compared to levels considered necessary to adequately support ELL students in their English language development, and in particular, in their production of school appropriate texts. For example, in terms of teacher experience and preparation, only half of the participating teachers had more than 3 years of teaching experience. For the content exposure, less than half provided detailed instruction in academic language, and for the access and development OTL variable, while most teachers utilized access and development strategies in their instruction, this practice was mostly misaligned with student ELD levels. Detailed descriptions of our findings are presented next.

Content Exposure: Academic Language

Teacher Survey Findings

As shown in Table 12, most of the teachers reported that they spent once a week or less providing explicit instruction in functional grammar concepts. For example, 69% of the teachers responded that they spent once a week or less providing explicit instruction in grammatical structures that signal point of view. Based on the survey responses, overall, teachers did not provide adequate exposure to functional grammar concepts to students. This is consistent with both interview and observation data, which indicated that specific grammatical features such as noun phrases, types of verbs, and cohesion strategies were covered in classroom instruction to at least a minimal degree by only one third of trained teachers.

Table 12

Teacher Self-Report on Level of ELL-Specific Content Coverage

	Never	Less than once per week	Once per week	2-4 times per week	Once per day	2 or more times per day
a. English language grammatical structures	3.23	3.23	32.26	32.26	22.58	6.45
b. Long noun phrases to increase sentence variety in a piece of writing	12.50	25.00	28.13	28.13	3.13	3.13
c. Vocabulary that reveals analysis/ interpretations of characters or situations	0.00	12.50	37.50	28.13	15.63	6.25
d. Verb choices that signal analysis of a character or situation	6.67	16.67	36.67	26.67	13.33	0.00
e. Grammatical structures that build cohesion at the sentence level	3.13	25.00	28.13	34.38	6.25	3.13
f. Grammatical structures that signal point of view	3.13	31.25	34.38	21.88	3.13	6.25
g. Grammatical structures that generate an impersonal tone	9.68	41.94	32.26	12.90	0.00	3.23

Observation and Interview Findings

In general, the percentages of teachers receiving low and high academic language implementation ratings were consistent with their training status (i.e., whether they participated in the training or not). The majority of comparison teachers (91%) provided no instruction in academic language, and 0% provided moderate or strong instruction in this area. In contrast, nearly 70% of trained teachers provided moderate to strong levels of instruction in academic language.

In a qualitative review of teachers' comments during interviews, those not trained in functional grammar rarely discussed explicit instruction of grammatical and lexical resources that, based on the literature review, are essential to express ideas in an academically appropriate way. The quote below demonstrates the lack of support most teachers provided ELLs in generating academic texts.

> Basically, all I got was that notebook that said to just administer the test, but as I understand it, you said I could do some lessons beforehand. Regularly, I would just give them the prompt and say, "Do it." Then I would have them do the draft, and then have them edit it and have them rewrite it. That takes like 3 or 4 days.

The lack of support in developing academic language proficiency was most evident in the writing instruction of comparison teachers who tended to focus simply on content and ideas, and on a broad and superficial level of writing instruction (e.g., an overall essay structure). In other words, these teachers attempted to provide instruction in the academic genres of schooling, but their attempts were of low quality in that they did not provide the level of specificity ELLs require to gain control of this kind of language.

On the other hand, most teachers trained in functional grammar described detailed writing lessons in their interviews that included various prewriting activities that helped students develop ideas as well as instruction in academic language that met grade level expectations during the first draft and revision phases. Thus, trained teachers were much more likely to describe instruction in academic language that both directly targeted the genre in question and was more specific to the needs of the ELLs in their classroom. In other words, the functional grammar approach appeared to improve the quality of instruction these teachers were able to provide to students.

Based on ratings from the observation protocol, 60% of observed teachers provided activities for students to apply language knowledge in the classroom at various levels. The frequency of instruction in particular lexical and grammatical principals, as recorded in the observation protocol, is fairly low. Approximately one third of trained teachers across all time points were rated in the observation protocol as providing some level of instruction in topical theme choice, vocabulary revealing a writer's evaluation, verb choice, and cohesion strategies. The number of teachers who provided instruction on the presentation of implicit opinion and grammatical structures generating an impersonal context was much lower across all time points, with an average of one to two teachers providing instruction in these principals. This apparent low rate of instruction in specific grammatical features is likely due to the fact that the questions in the instrument for academic language were not very sensitive to varying degrees of sophistication in teacher practice. For example, while observers were instructed to indicate the extent to which the principals were addressed in the lesson, the observers' ratings did not include quality or degree of depth (e.g., the teacher discusses verb choices with students but without mention of their function to signal the writer's evaluation). Each academic language feature was presented in the observation protocol, and subsequently evaluated by observers, in a complex form. The first item that observers looked for was presence of instruction

on: (a) topical theme choice, for the purpose of, (b) sentence variety, in the forms of (c) expanded noun phrases, prepositional phrases, participial clauses, and subordinate clauses. Observers had to rate all aspects of this item simultaneously, based on the extent to which the concept was addressed within the overall lesson. For the most part, if a teacher provided instruction to students in expanded noun phrases, but did not discuss their function to create topical theme choices, the observer did not rate the teacher as showing evidence of that item. Those teachers who showed evidence of instruction in these items as noted in the observation protocol probably held fairly advanced content knowledge. Thus, based on the trends between these two items, teachers may have covered many features, but did so in a very superficial manner limiting the quality and therefore impact of such instruction. We descriptively report more detailed observation and interview findings in the upcoming sections.

Academic Language Instruction of Trained Teachers

Analysis of the observation and interview data provided insight into which areas of academic language instruction were most accessible to teachers and students, and which ones demanded more complex understandings of the academic registers. Overall, qualitative analysis indicates that teachers most frequently instructed students in the grammatical features related to the "field" of academic language, namely ideational concepts as expressed through noun, verb, and adverbial phrases to describe "what is going on" in the text. Secondly, many teachers also described instructing students on topics related to the "mode" of the text, that is, its overall organization and the configuration of grammatical features within it. Conversely, very few teachers instructed students in the grammatical features related to the "tenor" of academic text, specifically, how to express opinions implicitly to communicate one's point of view in a detached manner. This alludes to the possibility that the tenor of academic text registers is a concept that is more difficult to teach than mode and field, and where evidenced, represents high teacher expertise. Further studies should explore how to increase teacher and student understanding of academic text tenor, as this represents an important dimension for appropriately analyzing and producing academic texts.

The set of questions in the interview and observation protocols specifically directed at trained teachers, and their ensuing responses regarding instruction in academic language, provide some markers (described below) for quality instruction

that were used in the rating of teachers on academic language instruction (see Methods section).

Developing students' grammatical sensitivity. Academic language instruction that trained teachers frequently described during the interviews and were observed during classroom visits was aimed at sharpening students' grammatical sensitivity. For instance, many of the trained teachers indicated first asking students to identify target grammatical structures in a sample text and then followed with instruction on how to repeat the process in their own writing. They also reported that having students look for the presence or absence of grammatical items in their own writing helped them recognize their writing problems. The following illustrates this point.

> Well I noticed that it seems to be easier for them to take a look at what they've done and like today, notice that that starts with "she" and there are other ways that I can make that a stronger piece of writing. So they're starting to recognize that.

According to these teachers, students developed grammatical sensitivity, which enabled them to recognize their own mistakes in writing and to provide constructive peer feedback as demonstrated in the following quote.

> [What I] do now that I didn't do before was actually take a sentence and break it apart into... phrases... I hadn't done that before. The kids are real responsive to that, and it's eliminated a lot of the old writing problems of run-ons... They find their own mistakes now. I always make the kids edit by reading out loud, and they'll go, "He, he, I know, too many pronouns, okay." So they're starting to be very analytical of their own writing, so that's good.

Developing students' lexical knowledge in context. Trained teachers also focused on developing students' lexicon in the context of their own writing, which is important in the acquisition of academic genres. The quote below shows how the teacher instructed students on choosing a lexical item (e.g., a verb) that accurately reflects the idea that they are trying to convey.

> I'm breaking it down more. I know that. The smaller parts, like the participants and the verbs and all of that, whereas before it wasn't really specific … Now I ask, "How does this verb fit into what you're trying to say and the thought?" You know, just the action… … I think that helps a lot.

Developing students' revision skills. In the training, we specifically addressed how functional grammar can be used in the revision process. We found that trained teachers were less likely to confuse revision with editing and, therefore, we directly addressed revision. The quote below demonstrates how teachers guided students in improving meaning in their written texts.

> Each time we work on our studies, we read and write or we write and read. Every lesson starts off with a mini lesson with a specific focus. So the first time we started it, I had them all do a rough draft on the character analysis of topic. I spoke of specific things that I saw that the class needed as a whole. For example the use of connectors, and conjunctions, so I wrote text, and I created text, and we had a mini lesson. I said, "Okay, instead of using 'and, with, but' which is what we'll be doing again today, "there are different methods in noun phrases to make those connections." So I look at the class and see what the specific need is for the majority of the group, and then we usually do a mini lesson before they go into reading or writing for a day.

This teacher, as well as many other teachers, indicated how she broke down functional grammar into several specific concepts and gave explicit instruction on each of them. Some trained teachers mentioned that they had practiced functional grammar instruction as one of their routine activities in class, as the teacher indicates in the quote below.

> Then every other day we do Sentence Fix-its. So some of those are just basic mechanics grammar, but then usually the second two sentences, one of them is either creating expanded noun phrases from it, and then the third one is they have to write the next sentence. So it's a theme rheme connection. If I don't do the expanded noun phrase they have to go back through, and they have to try to [use] the verb [to create a nominalization], which was really tricky.

Language Metafunction: Field

Developing students' revision skills: Expanded noun phrase (ENP). The most common functional grammar concept that trained teachers discussed providing to their students was the expanded noun phrase. As mentioned earlier, this concept relates to using precise nouns in writing accompanied by adjectives, prepositional phrases, and embedded clauses. This was a popular concept for teachers to use because it is easily comprehensible to students and can be used to improve a pervasive problem in student writing: the over use of pronouns and proper nouns to reference characters within a text. Depending on the degree of implementation, some teachers asked students only to provide adjectives for expansion, while others included a broader variety of the grammatical features. Additionally, while some teachers instructed their students to use expanded noun phrases in their writing as a strategy to avoid repetition while providing better detail and variation, other teachers deepened student knowledge by explaining the use of expanded noun phrases to provide text cohesion (linking between clauses), added contextual information, and implicit opinion. The following quotes illustrate the inclusion of adjectives.

> For our second paper, we might talk about adding adjectives. So after they do their rough draft they'll underline or highlight every noun in the paper, and then we'll brainstorm different adjectives and things like that on the board. Then they have to go back and rewrite by putting adjectives in front of all their nouns.
>
> And the other thing, we talked about renaming. Don't keep calling Lillian "Lillian" or "she," but "that nosy neighbor, this curious woman," that sort of thing. They had to do that. They had to include details. It just worked out really well.

Developing students' revision skills: Conjunctions and transitions. Trained teachers also spoke frequently about instructing their students on the proper use of conjunctions and transitional words. Many teachers felt that students struggled with how to use conjunctions appropriately and with variety in text. For this problem, as with referencing characters, we saw teachers trying to help students move away from using a grammatical feature in a limited repetitive manner. Teachers complained that students used mostly words such as "and, but, so, then" and "because" to relate ideas to one another. Additionally, many teachers stated that students would frequently misunderstand how to appropriately link clauses together, stringing them together instead with repetitive conjunctions in a single sentence creating run-ons. The quote below indicates that a focus on functional grammar helped students overcome this issue in their writing.

> We've been working on the "and, so, but" conjunctions, getting rid of those specific conjunctions and using different types of words to enhance or make the sentence longer. So that's working well….Because when I read it and I overstate the "ands," and the "so's" and the "buts," and when they see it, they see it as tedious. And I think one of our difficulties as students is they don't hear the voice or they don't hear the tone of the written word….And for them to actually hear it now, they're understanding that these words can be tedious.

Several teachers instructed their students on the use of conjunctions and transitional words in their writing, by explaining that these words create different types of relationships between ideas such as additive, contrasting, cause and effect, order of importance and time order. Some teachers provided students with word lists categorized by their function within a given text and activities to help them apply these ideas to their own writing. Additionally, some teachers instructed their students not to use more than one conjunction per sentence to avoid run-ons. About half of the trained teachers mentioned instructing students in conjunctions and transitions.

Developing students' revision skills: Verb choices. Approximately one third of trained teachers suggested that they provided instruction in the identification and

use of different types of verbs, namely action (used for retell and event description); saying (used to relay text participants' words); attributive (being and having verbs used to describe background, introduce characters, and make general statements of truth); and mental/attitudinal (used to relay the author's or text participants' thoughts and feelings). Teachers felt that this instruction helped students create more interesting, varied text and differentiate the function of sections of text (e.g., for relaying an event, analyzing an idea, or providing background). The following quotes describe some of these lessons.

> Well we started out with the processes—the verbs. We started out with that because that's what I felt most comfortable with. So that was easy for them to recognize and to pick out of their writing, the simple ones that they were using when there are so many others that they can use.

> We were talking about different types of verbs. Unbeknownst to them, as they were writing they were composing all their paragraphs, talking about their likes and dislikes and their attitudes about things. After they were done with it, I pointed out what kind of verbs they were using in those paragraphs. They're like, "Oh, actually, we're using attitudinal verbs and we're using attributive verbs." I said, "Exactly, and you didn't know it at the time, but you can actually label those now and see what kind of purpose they are in writing."

Language Metafunction: Mode

Developing students' revision skills: Sentence structure. Approximately one third of trained teachers indicated that they instructed their students on how to identify and use a variety of sentence structures and incorporate grammatical features such as embedded clauses, adverbial expressions (including prepositional phrases), and participial and subordinate clauses for the purpose of creating academic organizational structures. Again, the higher implementation teachers indicated that they provided activities that highlighted the different functions of these grammatical features, namely providing variation in the pattern of text, adding detail and context, linking text and presenting their opinion(s) implicitly. The following quote illustrates instruction in sentence structure aimed at improving text organization.

> So first I have to teach them how to write a sentence, but once we've done that, usually once we get into essay writing where I want them to be more elaborative, we get into sentence combining. That's something we do to practice on writing complex sentences and things like that. Sentence combining, and then the character pyramids basically [to create expanded noun phrases]…So earlier in the year when they might have said, "Anne Frank is a hero," now they're saying, "This brave teenager overcame her difficult situation with determination and bravery" or something like

> that. So I've seen with my own eyes as the year has gone on how they went from writing non-sentences to writing very short simple sentences to at least attempting to write more elaborate and complex sentences.

Developing students' revision skills: Theme and rheme. One third of trained teachers remarked on instructing their students on the functional grammar concept of theme and rheme. Recall that this concept refers to dividing clauses into two parts (similar to subject predicate). Teachers utilized this concept as a tool to analyze writing. Many teachers asked their students to copy portions of their writing onto theme/rheme charts to look for overall patterns, such as flow between sentences (i.e., clause combining strategies), balance between the theme and rheme, and repetitive subjects or verb choices. Many teachers remarked on using this strategy during their students' writing revision process as suggested below.

> In this case we use the theme and rheme. "Just break it up," [I said]. Then they slipped in and said, "What do you mean break it up?" "Okay, let's find the mid point. Where is the mid point? Let's find the verbs. Let's go back and identify the verbs." Then they physically did that. They started doing that one on their papers…They did it once on that paper on the characters. It was strong. It was a big difference. That's when I felt that this is strong if it's done right.

Language Metafunction: Tenor

As mentioned previously, very few teachers instructed students on the tenor of academic texts, or more specifically, on how the writing context determines appropriate levels of formality or informality in the text. Those teachers who did provide this instruction followed patterns of explicit instruction, such as asking students to identify grammatical features commonly used for expressing opinion in text, namely comparing opinion pieces and standard articles in local newspapers that showed a range of expression from explicit to implicit. They also provided students with handouts of phrases and strategies for expressing implicit opinion in texts for their revision stage of writing. These included generalized noun phrases, modal verbs, and third-person references.

ELA Content Coverage

Teacher Survey Findings

Most of the teachers reported that they had spent 3 weeks or more on classroom activities that specifically address ELA content topics (e.g., summarizing the plot of novels, describing themes of novels, characterization, etc.). On average,

teachers reported that they spent about 3 to 4 weeks on various activities related to literary analysis (see Table 13).

Table 13

Teacher Self-Report on Level of Standard ELA Content Coverage

	Never	Less than 1 week	1 week to less than 2 weeks	2 weeks to less than 3 weeks	3 weeks to less than 4 weeks	4 or more weeks
a. Summarizing the plot of novels, plays, or short stories	0.00	3.13	6.25	6.25	12.5	71.88
b. Describing the theme of novels, plays, or short stories	0.00	3.13	18.75	15.63	28.13	34.38
c. Describing heroic qualities of characters	3.13	15.63	6.25	28.13	21.88	25
d. Describing characters' physical, or personality traits	3.13	3.13	3.13	12.5	34.38	43.75
e. Describing characters' motivations, thoughts, and feelings	3.13	3.13	0.00	15.63	43.75	34.38
f. Describing characters' actions or relationship with other characters	6.25	0.00	9.38	9.38	34.38	40.63
g. Using information from novels, plays, or short stories read in class to support ideas	3.13	0.00	15.63	21.88	21.88	37.5
h. Writing about heroic qualities of characters, sacrifices they make, or how they are courageous	9.38	12.5	18.75	18.75	18.75	21.88
i. Writing about other aspects of characters, like physical traits, their relationship with other characters, or impact on the story	3.13	9.38	25.00	15.63	18.75	28.13

Observation and Interview Findings

Writing instruction. As previously noted, teachers without knowledge of academic language structures focused writing instruction mainly on global essay structure, mechanics, and vocabulary. Specific instructional methods for the revision stage, targeting cohesion or enhancing argumentation, were notably absent from their descriptions. Comparison teachers, comprising the majority of teachers without this knowledge, focused instruction instead on providing pre-writing level support, such as assisting students in understanding the writing prompt and scoring criteria, and brainstorming and outlining ideas through teacher-led discussions. Few comparison teachers mentioned using specific strategies or activities for the writing and revision stages, and none of them suggested that they provided students with instruction focused on building students' grammatical and lexical resources essential to the expression of ideas in academically appropriate ways. Thus, in many

ways these teachers' responses indicated that they had fewer resources to inform expository writing instruction.

Whereas comparison teachers focused instruction on pre-writing activities and some writing conventions such as global essay structure and mechanics, trained teachers indicated the use of a greater degree of instructional support in writing, including not only organization of ideas but also expression of ideas in a coherent and authoritative manner. This trend clearly resulted from the training, as these were two key areas on which the training focused. These features are discussed in the academic language section above. Further, observations conducted by the research team confirm these differences.

Literary analysis. The great majority of teachers conducted instruction on literary analysis after reading text. Trained teachers indicated the use of a greater variety of strategies, most of which were strategies gleaned from the training provided by CRESST. These included teacher-led classroom discussions focused on literary elements such as characterization and theme as well as the use of various characterization charts. Many of the characterization charts were also utilized later as pre-writing tools for the writing process. Comparison teachers did not mention teaching literary analysis as frequently as trained teachers. Of the literary analysis activities which occurred in comparison teachers' classrooms, discussions were not as common as other activities such as filling out graphic organizers and answering questions from the textbook. Both trained and comparison teachers described having students work in small groups to complete worksheets related to presenting and interpreting literature read in class.

Access and Development

Comparable to Porter's teaching quality dimension, "access and development" refers generally to instructional styles and activities teachers utilize to increase student access to the curriculum and opportunities for development of content understanding and language learning. This concept includes four OTL variables, which, for the purposes of this study, focus on strategies shown to be effective for English language learners. These are (a) delivery format, (b) ELL process strategies, (c) second language acquisition strategies, and (d) feedback and assessment. The last variable, feedback and assessment, will be discussed separately from the others at

the end of this section because of its particular importance in the research design, which focused on the LAPA student outcome measure.

Survey Findings

Based on the teacher OTL survey responses, we found that teachers varied significantly in the level of utilization of these various strategies targeted for ELL-sensitive instruction (see Table 14). For example, the frequency in the use of scaffolding techniques to support student's understanding varied equally across two to four times per week, once per day, and two or more times per day. In contrast to the responses in other OTL variables, we found much more variability in teachers' practice in utilization of ELL support strategies.

Table 14

Teacher Self-Report on Level of ELL-Specific Support Strategies Provided

	Never	Less than once per week	Once per week	2-4 times per week	Once per day	2 or more times per day
a. Use supplementary materials (e.g., graphs, models, visuals) to clarify and illustrate concepts	0.00	6.25	18.75	40.63	12.50	21.88
b. Adapt content (e.g., text, assignments) to all levels of students' English proficiency	3.23	9.68	6.45	35.48	22.58	22.58
c. Explicitly link new concepts to students' background experiences and past learning	3.23	9.68	12.90	25.81	22.58	25.81
d. Adapt speech to accommodate the range of English proficiency levels	6.25	6.25	3.13	31.25	18.75	34.38
e. Use scaffolding techniques to support students' understanding	0.00	3.13	9.38	31.25	28.13	28.13
f. Provide opportunities for student-to-teacher interactions that encourage elaborated responses	0.00	12.50	6.25	34.38	21.88	25.00
g. Provide opportunities for student-to-student interactions that encourage elaborated responses	0.00	12.50	21.88	28.13	18.75	18.75
h. Provide activities for students to practice using new skills, concepts, and vocabulary	0.00	3.13	18.75	37.50	28.13	12.50
i. Provide opportunities for students to clarify key concepts in primary language	18.75	12.50	15.63	15.63	12.50	25.00

Observation and Interview Findings

Delivery Format

Whole-group instruction. Whole-group instruction appeared to be the most frequently used process strategy amongst the teachers, particularly for instruction aimed at building reading comprehension and literary analysis. The majority of teachers indicated that they use teacher-led whole-group discussions for reading comprehension activities. Most often, these discussions followed the initiation, response, evaluation (IRE) mode (Mehan, 1979), which typically refers to a sequence initiated by the teacher's question, followed by a student's (or several students') minimally expanded response, and ends with the teacher's evaluation of the student response. As was suggested by the observed patterns of interaction between the teacher and students, teacher-led classroom discussions often did not result in guiding students into analytical cognitive processes or in moving students to higher levels of English proficiency, within the context of the English language arts classroom. In the absence of additional process strategies that may fulfill these outcomes, teacher-led whole-group discussions were often directly followed by independent practice such as filling out graphic organizers or individual writing. Although small group writing activities were mentioned by several teachers, these focused mostly on peer editing.

A small number of teachers utilized a more balanced approach, which included whole-group, small-group, and independent work. In addition to peer editing, the students of these teachers participated in small group settings to complete grammar and vocabulary worksheets, and to write research papers. Individual practice activities included working on quick writes, journals, essays, and grammar worksheets. While some teachers provided individual writing instruction to students in the form of writing conferences, there was no evidence of teachers engaging in small-group writing instruction. That is, students generally worked without teacher participation during small-group activities.

Group or pair work. Teachers generally considered peer interaction as positively affecting student outcomes. These teachers indicated that small- or pair-group work is a great way of promoting student-to-student interaction, and thus is facilitative of collaborative learning. However, this delivery format was generally not observed by the research team. Only a few teachers, who pointed out student-to-student interaction as a site of peer support and assistance, mentioned using a

variety of grouping configurations such as pairing a high performing student with a low performing student to assist in the completion of a task, or placing students with the same first language background to receive first language support from each other. These teachers, as the quotes below demonstrate, mentioned arranging student seating in a way that promotes student-to-student interaction.

> I have the seating arrangement in the classroom where the students who are a little bit higher, and then those that are a little bit limited that could work with a partner that is a little bit stronger, and that could help them out.

> I work in groups. If I know they're pretty low-level, I'll try to group them with a child who at least has their language, so if they need directions, so that they can - I have them translate the directions, but I have them talk in English to the rest of the group and I have expectations that everybody has an equal part in whatever project we're doing.

Unfortunately, the overall trend was that teachers provided ELLs with few opportunities for small-group-level peer interaction. Only in about one fourth (26.7%) of the classrooms observed was this practice highly evident at Time 1 and as might be expected for an assessment context, far fewer (15.7%) grouped students at Time 2. Here, grouping was utilized during mini-lesson activities.

Further, the lack of small-group instruction appeared to be linked to poor classroom management practices, as teachers frequently stated how challenging it is to have students focus on given tasks in groups or pairs and misconceptions about ELL practices described below. Some teachers suggested that ELLs achieve less by working with peers than with direct instruction.

Extended discourse opportunities. Very few teachers indicated that they engaged students in activities that provided for greater opportunities for extended discourse outside of independent writing activities. Those teachers who indicated supporting ELLs through group discussions described an approach that encouraged ELLs to take active roles. Teachers described these discussions as following an instructional conversation format (IC) where the students took self-selected turns (not always back and forth between teacher and student, but also between student and student), and the teacher asked open-ended questions, trying to bring student experience and background into the discussion to connect to the subject. However, the research team did not observe this type of conversation during classroom observations in any of the classrooms.

The majority of teachers said that while they try to facilitate ELLs to think and learn by getting them more involved in teacher-led discussions, rather than just

providing direct instruction of knowledge and concepts, they also faced challenges, as indicated below.

> I try to get them to interact with me in a real class setting when we're discussing a story or whatever. I ask them and re-ask them in different ways to sort of clarify questions, and things like that. I really don't know. I try to get whatever I can out of them. I try to get them to have discussions among themselves in their groups. Sometimes they discuss better in pairs or in a small group if I want them to come up with an answer to a question or if I want them to fill out a chart or something. Sometimes just picking each other's brains as opposed to doing it on their own. Sometimes I do that, but it's something that I've actually been struggling with in trying to get them to open up.

Based on teachers' descriptions of a "real class setting" and the types of practices observed in most classrooms, the strategies they employed to facilitate deeper thinking are better categorized as rote learning techniques which generally do not promote deeper thinking or language learning.

ELL Process Strategies

Although the majority of the interviewed teachers seemed to be generally familiar with ELL-specific process strategies to further develop ELLs' content understanding and skills, the types of instructional strategies were not varied and teachers' understanding of these strategies appeared to be somewhat narrow. How these strategies were implemented is described below.

One common aspect of scaffolded instruction, which has been considered especially important for ELLs' language development, is verbal scaffolding, such as paraphrasing, think-alouds, and providing contextual definitions for the meanings of unknown words. Observations indicated that verbal scaffolding occurred predominantly during whole-group instruction. This practice is inconsistent with the research in this area. To optimize language learning, particularly language learning in the content areas, the teacher should provide verbal scaffolding in small group sessions (Gibbons, 2002; McCurdy, 1980; Pica, 1988; Pica, Lincoln-Porter, Paninos, & Linnel, 1996; Porter, 1986; Shi, 1998). Unfortunately, verbal scaffolding techniques provided in a small-group context were neither mentioned by the interviewed teachers nor observed in classrooms. Moreover, verbal scaffolding was only evident to a high degree in less than half (46.7%) of the teachers observed in Time 1 and far fewer at Time 2 (21.9%). This trend indicates that teachers tended to rely on modeling in the whole-group context to provide most of the scaffolding for students. Further, the degree and type of scaffolding appeared to be impacted by

misconceptions related to scaffolding, which may have led teachers to interpret the items in unexpected ways. This is further elaborated in the Discussion section at the conclusion of this report.

Individualized instruction. Teachers frequently indicated the difficulty in addressing ELLs' instructional needs because of their different proficiency levels. As a way of accommodating ELLs of various proficiency levels, some teachers provided one-on-one instruction. The majority of the teachers indicated that one-on-one interaction works best with low-performing ELLs. However, there was a discrepancy between teachers' reports of one-on-one interaction with ELLs in both the survey instrument and interviews and what the research team observed in the classrooms. There was no single instance of one-on-one interaction observed during our classroom visits. A few teachers mentioned providing additional support to individual students after school or during breaks; however, this appeared not to entail any special preparation on the teacher's part.

Individualized instruction was not directly addressed in the survey instrument due to the need to reduce the variables under study because of the size of the teacher sample. Given the amount of research indicating the importance of individualized instruction for struggling students in general, and in particular ELLs, this variable should be more directly addressed in future studies.

Explicit instruction. Explicit or direct instruction appeared to be the preferred method of delivery across the content topics (e.g., reading, literary analysis, and writing), especially for those who teach low-performing ELLs. Writing in particular appeared to be an area where teachers frequently used direct teaching. As demonstrated in the following quotes, many of the interviewed teachers mentioned giving mini-lessons on writing conventions and skills including grammar.

> I always teach where I give them the lesson on summary writing or I give the mini-lesson on conventions and things like that.

> At the beginning of the year, we work on run-on sentences and sentence fragments. A lot of the children, like I said at the beginning, they might write one whole page, which is one sentence. So first I have to teach them how to write sentences, but then once we've done that, usually… get into essay writing…

Widespread misconceptions were found in teachers' discussions of direct instruction, particularly as a method for scaffolding content.

Second Language Acquisition Strategies

The teachers who instructed students in the functional grammar concepts described in the earlier section also usually provided them with instruction and opportunities to practice literary analysis and the writing process, through which they incorporated specific comprehensible input strategies, such as modified speech and comprehension checks. However, the use of these strategies was not unique to trained teachers; comparison teachers also utilized these techniques with comparable levels of frequency and quality. Interview and classroom observations confirm the high rate of use of the three most frequently used comprehensible input strategies that aim to provide students with access to the curriculum. These are modified speech, comprehension checks and visual displays. Pre-viewing vocabulary was not observed during classroom visits, though teachers indicated using this strategy during reading instruction. These instructional strategies are described next.

Comprehensible input—modified speech. In addition to explanations and clarifications of unfamiliar concepts and vocabulary, some teachers indicated that they provided comprehensible input by modifying their speech. Features of modified speech that teachers reported using with struggling ELLs include simpler grammatical structures, easier vocabulary, clearer articulation of sounds, and slower rate of speech. If necessary, teachers also indicated the use of first language support. This strategy however, was constrained to those few who had at least a working knowledge of the first language. The following quotes demonstrate these practices.

> The most important thing I do is speak very slowly with them, and thoroughly, and stop and explain things that we take for granted such as idiomatic things.

> The most successful is doing examples with simpler language. In other words, they get the idea by me simplifying it before I go into the higher level with the other kids.

> Especially with the literature book, I encourage the student. As I said, what I do in the classroom is, if I give the lesson, I always have to translate it to Spanish, so we do have class discussion.

The use of modified speech was confirmed by classroom observations and was highly evident for 93.3% and 78% of teachers observed at Time 1 and Time 2, respectively. Further, clear explanation of tasks was highly evident for about half (53.4%) of the teachers at Time 1 and for the great majority of teachers at Time 2 (75.0%). It is important to note, however, that much of the explanations at Time 2 were related to the introduction of the LAPA prompt, which was well outlined for teachers.

Comprehensible input—comprehension checks. Teachers suggested the use of comprehension checks to assess student understanding. Comprehension checks were often language-specific. When difficult vocabulary and complicated syntactic structures were used, teachers asked questions to gauge ELLs' understanding. Teachers appeared to be cautious not to take for granted that ELLs would understand all the words and structures used in teacher talk as well as in written texts.

> I embellish a little more with those embedded classes, just because I know that if I use idioms, I make sure I say, "Have you heard that before?" I try to explain what I'm saying rather than take for granted that everybody knows what it means. I think I'm extra-explanatory, and I try to explain new terms. I'll ask for prior knowledge, "Do you know what this is?" That kind of thing.

As the above quote briefly addresses, teachers frequently attempted to make the content of instruction comprehensible to students.

The use of comprehension checks was noted by the research team who categorized the use of this technique as highly evident 73% of the time at Time 1. Less than half (43.8%) of teachers observed utilized this technique at Time 2, however, since teachers were administering the LAPA at this time, a significant portion of the time was dedicated to having students complete pre-writing worksheets and writing independently to fulfill the requirements of the assignment.

Comprehensible input—use of visuals and graphic displays. The majority of teachers in the study mentioned using a wide range of endorsed ELL-specific instructional strategies, such as modeling and think-alouds, as well as visuals to structure their lessons, making the content accessible for their ELL students. The most common visual teachers reported using were graphic organizers prior to writing or in analyzing characters. Consistent with teacher reports of the use of visuals, the research team found that this strategy was highly evident for most (66.6%) of the teachers observed at Time 1. Further, a great majority (73.4%) of teachers used visuals to supplement their instructional materials. Far fewer utilized this strategy to a high degree at Time 2, where visuals were confined to the use of graphic organizers as part of the pre-writing phase of the LAPA assignment.

Comprehensible input—previewing vocabulary. Some teachers indicated providing students with instruction in vocabulary development prior to reading a classroom text in an attempt to improve reading comprehension. This usually took the form of students looking up words in dictionaries and writing down their definitions. This task was either conducted individually or in small groups. A few

teachers extended this activity to include drawing pictures to illustrate the new words, or having students use them in sentences. This trend was not regularly observed by the research team; only about one third of the teachers (33.3%) used this strategy to a high degree at Time 1 and only about one fourth of the teachers (25.1%) at Time 2. It is worth noting however, that the majority of instruction during classroom visits was centered on writing instruction where pre-viewing vocabulary is less likely to occur.

Taking the interview and observation trends into account, it appears that teachers were accurate in reporting comprehensible input, which in turn suggests that comprehensible input alone was not sufficient in raising students' writing performance in this sample of teachers. Future studies however should investigate more directly the interaction effect of providing comprehensible input and academic language instruction.

Feedback and Assessment

Survey Findings

According to our survey data, the amount of feedback teachers provided to the students varied significantly ranging from about once a month to once or twice a week (see Table 15). Based on the amount of variability in the responses, the level of feedback provided to students is difficult to generalize for this group of teachers. For example, the amount of time that teachers provided feedback to student on their understanding of long noun phrases to increase sentence variety in a piece of writing ranged equally across about once a month (22%), about twice a month (25%), and once or twice a week (22%).

Table 15

Teacher Self-Report on Level of Feedback Provided

	Never	Less than once a month	About once a month	About twice a month	Once or twice a week	Almost every day
a. Provide feedback to students on their understanding of long noun phrases to increase sentence variety in a piece of writing	12.50	12.50	21.88	25.00	21.88	6.25
b. Provide feedback to students on their understanding of vocabulary (e.g., verbs, adverbs, and adjectives) that reveals analysis of characters or situations	0.00	15.63	21.88	15.63	31.25	15.63
c. Provide feedback to students on their understanding of grammatical structures that build cohesion at the sentence level	0.00	15.63	25.00	21.88	28.13	9.38
d. Provide feedback to students on their understanding of grammatical structures that signal point of view	0.00	25.81	22.58	16.13	25.81	9.68
e. Provide feedback to students on their understanding of grammatical structures that generate an impersonal tone	10.00	23.33	26.67	13.33	23.33	3.33
f. Provide feedback to students on their understanding of the role of paragraphs or sentences to support the writer's purpose (e.g., provide background, detail, and analysis)	3.45	13.79	10.34	31.03	24.14	17.24

Observation and Interview Findings

General Feedback and Assessment Practices

For both feedback and assessment of comprehension, the majority of teachers were observed providing students with meaningful and specific feedback and conducting assessment of comprehension to a high degree at the first observation time point (60% and 73.4%, respectively). The proportion of teachers providing these strategies at the second time point dropped somewhat for trained teachers with 50% of trained teachers providing a high degree of feedback and assessment. It was significantly lower with comparison teachers, where on average 25% of teachers provided students with meaningful and specific feedback, and 41.7% conducted assessments of students learning for all lesson objectives.

LAPA Preparation

Teachers were highly encouraged to provide students with instructional support when administering the LAPA, as it is a type of performance assessment designed to guide teachers' instructional practices. Teachers were asked to fill out a teaching log for lessons they taught specifically for the LAPA. Teachers who had participated in the training received further instructional guidelines for preparing students for the LAPA during a 1-day follow-up session. During this follow-up session, these teachers developed lesson plans particularly focused on functional grammar and literary analysis. The information obtained from the interview analysis along with classroom observations and teachers' instructional logs indicated that there were differences among teachers in terms of the content, frequency, and depth of instructional support that they provided during the LAPA preparation period.

With regard to the areas of provided support, most teachers appeared to focus on clear understanding of the writing prompt, literary analysis, and writing. Teachers often asked the class to read the writing prompt out loud as a whole group or quietly at the individual level, and subsequently led a brief teacher-guided discussion in order to check students' understanding of the prompt. Some teachers also mentioned that they tried to accentuate several aspects, which the prompt suggests writing about either implicitly or explicitly, such as definition of a hero, a character's personality and traits, a character's relationships with other characters, and so on. Teachers' descriptions of instruction regarding the writing prompt was

often closely tied to literary analysis, for which support was also provided in a teacher-led whole-group discussion format.

As far as writing is concerned, however, teachers appeared to differ in terms of specific content areas of writing instruction depending on whether they participated in the training or not. This is consistent with differences observed in earlier observation points. Whereas comparison teachers' comments were mainly about instruction on writing process, global essay structure, and grammar mechanics, trained teachers' remarks were more varied in content, encompassing not only writing conventions but also academic writing expectations (e.g., use of varied sentence structures, cohesive argumentation, etc.) and revision using functional grammar concepts.

Additionally, teachers appeared to vary with respect to the depth and frequency of LAPA-specific instructional support they provided. Trained teachers, who received further instructional guidelines for the LAPA preparation in a follow-up session, tended to provide more systematic and in-depth support, especially regarding functional grammar, and this was manifested in the more detailed and richer descriptions of instruction they provided in the interviews, as well as in the teaching logs they submitted. However, this was not true of all the trained teachers. Approximately one third of the trained teachers failed to display the same level of detail and elaboration as the other trained teachers in their description of content and procedures they implemented in preparing their students for the LAPA.

Teacher Experience and Expertise

Survey Findings

The average number of years teaching was about 10 years for the teachers participating in this study. As shown in Table 16, the amount of teaching experience ranged from 1 to 27 years of teaching. In addition, the average number of years teaching English language arts was about 6 years. However, about 50% of the teachers had less than 4 years of teaching experience in English language arts.

Table 16

Teaching Experience

	N	Minimum	Maximum	Mean	Std. Deviation
Total yrs teaching	32	1	27	9.73	8.020
Yrs at this school	32	1	18	4.55	4.025
Yrs at Eng lang arts	28	0	25	6.80	6.129
Yrs at sheltered eng	24	0	15	3.42	3.900

According to our survey, most of the teachers reported that they rated their level of expertise in the content areas, either as adequate or as experts. On average, teachers rated their level of expertise as more than adequate (see Table 17).

Table 17

Teacher Expertise in the Content Area

	Novice 1	Novice 2	Adequate 1	Adequate 2	Expert 1	Expert 2
Analyzing the plot (i.e., beginning, middle, and end) of literary works	3.13	3.13	6.25	34.38	28.13	25.00
Analyzing theme and characters in literary works	0.00	0.00	15.63	28.13	34.38	21.88
Analyzing figurative language and rhetorical devices in literary works	0.00	6.25	15.63	40.63	21.88	15.63
Evaluating English language grammatical structures	3.23	0.00	29.03	22.58	38.71	6.45
Using long noun phrases to increase sentence variety in a piece of writing	3.13	6.25	12.50	31.25	43.75	3.13
Using vocabulary that reveals analysis/interpretations of characters or situations	0.00	3.23	6.45	38.71	38.71	12.90
Using verb choices that signal analysis of a situation or character	3.23	3.23	12.90	32.26	38.71	9.68
Using grammatical structures that build cohesion at the sentence level	3.33	3.33	23.33	16.67	43.33	10.00
Using grammatical structures that signal point of view	0.00	3.13	21.88	31.25	34.38	9.38
Using grammatical structures that generate an impersonal tone	0.00	9.38	18.75	43.75	15.63	12.50

Observation and Interview Findings

Preparation and Teaching Experience

The majority of teachers we interviewed had received their teaching credential, therefore, differences due to credential status were not explored with the interview data. Interesting trends in instructional practice were observed based on levels of teaching experience. Specifically, levels of teaching experience and the perceived appropriateness of the adopted English language arts program appear to be possible influencing variables affecting instructional practices. Teachers with 2 or less years of experience, as demonstrated in the interviews, described their instructional practices in a manner that showed less preparedness for providing ELL-appropriate lessons than more experienced teachers. While comparison teachers did not, as a whole, provide instruction in academic language, among trained teachers, those with this minimal experience of less than 3 years consistently demonstrated a similar lack of appropriate instruction in academic language. In contrast, trained teachers with 3 to 10 years of experience frequently provided students with instruction in academic language within an appropriate ELL-accessible framework. This is probably the result of having sufficient and flexible content and pedagogical knowledge that allowed them to integrate new ideas into their teaching practices. Trained teachers with 11 or more years of teaching experience appeared to be the most varied group. While some provided ELL-appropriate instruction in academic language (as demonstrated by the interview ratings), others did not show any evidence of this instructional practice. Observers felt that the small group of highly experienced teachers who provided students with instruction in academic language represented some of the best practitioners of all the participating teachers. Therefore, amongst the trained teachers, levels of teaching experience affected the teachers' instructional practices in different ways, and as such, impacted the degree to which the teachers were able to meet the specific instructional needs of ELL students. The following quote illustrates the degree of academic language instruction some teachers were able to achieve.

> I use a number of mini lessons that we learned in the trainings. We did prepositional phrases. We've talked about expanded noun phrases. We've done extreme sentences, which is not just expanding noun phrases, but also the verb in making the process more specific. We have also talked about shades of meaning—some things outside of the mini lessons. We talked about engaging beginnings for stories. We also did some of the different graphic organizers with a previous book we read….going back and choosing some different stories with some of the graphic

organizers. It was the action, how the characters react, and the characters' thoughts, so we did some of those.

The following quote by a first year teacher who participated in the training demonstrates the opposite end of the spectrum, showing failure to integrate either ELL processes or academic language into her instructional practices to help ELLs access new knowledge and skills.

Okay. Specific ways first was to find a hero for them to understand what the assignment was. To explain the assignment, which some of them I wonder if they got it, but I endeavor to explain. So we start with a quick write. I explain how to define a hero. First, actually we reviewed because I wanted them to decide from all the stories that we read, it was like a review which story that they liked to do. When I did it, of course, they didn't decide. They don't want to decide. They wanted me to select a story for them. They wanted more to be told what to do, so we selected a story.

Further, this quote suggests how low student participation and motivation in the writing process can result from a lack of linguistically supported lessons, which in turn leads to an over reliance on teacher directed activities. Additionally, the lack of ELL strategies appears to have lessened the level of student comprehension of the writing task, limiting their participation in critical thinking activities.

Differences between more- and less-experienced teachers were also evident in how they coped with curriculum materials that they considered instructionally inappropriate for their ELL students. Many teachers commented that the texts these materials provided were years beyond the reading ability of their students, ELL students in particular. For inexperienced teachers, their lack of experience coupled with a curriculum that was not designed to support ELLs appeared to be linked to instruction that for the most part did not support ELLs' learning needs. It was evident to CRESST researchers through observations and follow-up training sessions that a more substantive training was called for to impact the practices of these teachers.

The following teacher expressed difficulty in providing instruction to her students using her school's materials, but did not have outside resources or experience with which to supplement them. Instead she struggled with adapting the material for her low ELD students.

The greatest obstacle that I have would be the textbook….It's really difficult for them. If the students are of a higher level, let's say a [ELD] level four, they could read the story in 2 days. Where in fact my students could take almost 2 weeks because we break down each paragraph and then it's discussed. We talk about it, and then I explain it to them, "This is what the character is

saying." It takes time. Q: "So you're saying the textbooks are too advanced?" R: "Yes, the books definitely are too advanced."

In contrast, teachers with greater experience and preparation seemed better able to compensate for perceived inadequate instructional materials, with the ability to draw upon past teaching experience, various models, and resources to design their own programs appropriate for meeting their students' needs. Classroom observations by the research team confirmed the higher quality instruction these teachers provided their students.

The following quotes demonstrate how some highly experienced teachers have the capacity to compensate for insufficient or disorganized instructional materials by relying on various experiences and resources.

> We have two core books a year that we're supposed to cover. We have a grammar book that we don't really like. We have a new literature book that hardly anyone uses. … It's been real frustrating, because there was grammar here, there was some literature here, there were core books here. It's very much put-it-together-yourself. A lot of us rely on what we've been doing when we were doing … more of a whole language approach.

> I think there is not a uniform approach here… Some teachers go directly by the book, in whatever order, whatever grammar, that's what they follow. Other people, I among them, tend to be a little more pick-and-choose, and put it together the way I see being useful.

> I own a lot of my own things which I bring in, too. I buy a lot of books and short stories. I purchase all these things myself. Fables, sometimes mystery books.

Latent Class Analysis

In order to understand teacher response patterns to the OTL survey and also to help characterize the participating teachers, we conducted a latent class analysis on teachers' responses. The purpose of this latent class analysis was to investigate possible explanations for discrepancies between the survey data and observation/interview data, by examining the response patterns of the survey in more detail. Latent class analysis (LCA) is a statistical technique that is sometimes described as the categorical analogue to factor analysis with categorical indicators and an underlying categorical latent variable. However, the objectives of these two types of analyses are somewhat different. Factor analysis may be termed a *variable-centered* analysis, where the goal of the analysis is to understand the relationship between items or variables to explain the observed covariance structure in the data, and to evaluate the functioning of particular items. LCA can be considered a *person-*

centered analysis where the goal of the analysis is to understand the similarities and differences in response patterns across individuals in the data set. Similar response patterns are then grouped together into general *profiles* of responses, defined by a certain set of item response category probabilities. Thus, there are a finite number of response profiles (much smaller than the total number of observed response patterns), each defining a latent class, and the probability of each individual's membership in each profile is computed. Modal profile class assignment is done by placing individuals in the profile classes for which they have the highest estimated probability of membership. Correlates of profile class membership can also be investigated within the LCA model or post-hoc, based on modal class assignment.

The first step in an LCA is to determine the number of latent classes, K, that adequately summarize the different response patterns on the observed items. Like factor analysis, there is no statistical procedure for testing the number of latent classes, but there are several information-theoretic techniques for comparing models with varying numbers of latent class profiles. The Bayesian information criterion (BIC) is often applied to the problem of latent class enumeration (Schwartz, 1978). This index is based on a function of the model log likelihood with a penalty of the number of parameters estimated relative to the sample size. Comparing across models, the lowest BIC level indicates a preferred model. There is also an empirically-based likelihood ratio test (LMR-LRT), developed by Lo, Mendel, and Rubin (2001) for finite mixture models that has shown promise in latent class enumeration in the LCA setting based on preliminary simulation studies. For this index, each K-class model is compared to a (K-1) class model with a significant p-value indicating a significant model improvement with an additional class. Summaries of the classification uncertainty such as entropy-based measures are also used to determine the number of clusters. Entropy is an index ranging from zero to one with a value of one indicating perfect classification and a value of zero indicating classification no better than random assignment to latent classes. In addition to these information heuristics, the intended use of the resultant classes and other substantive considerations, such as the interpretability and face validity of the classes, should also guide the class enumeration process.

Once the number of classes has been selected, the final LCA model yields class-specific item response category probabilities and overall class proportions, as well as estimated profile class membership probabilities for each individual. The class-specific item probabilities can be used to understand the character of the classes. The

class proportions represent estimates of the profile class prevalence in the population from which the sample was drawn. The estimated profile class membership probabilities can be used to assign each case to his/her most likely latent class profile.

To select the number of classes for the final LCA model, a series of models with increasing class numbers was fit using items designated under each of the four OTL constructs (see Table 18). We examined the response patterns for the OTL items under each construct separately. Table 19 presents a summary of results for the measurement models for the four OTL constructs—the total number of classes chosen to explain the response items that defined each construct. To test how well the 2-latent class model fit or defined the different response patterns of the observed items, we examined the LMR-LRT and BIC. If the LMR-LRT was not significant, the 2-latent class Bayesian information criterion (BIC) was compared with the 1-latent class model. In Table 18, we observe that for the constructs Standard ELA Content Coverage and ELL Content Coverage the LMR-LRT was not significant (indicating that we cannot reject the null hypothesis that 1-class model fits better than 2-class model). However, for both constructs the BIC for the 2-class model was significantly smaller than the BIC for the 1-class model, indicating that the 2-class model fits adequately.

Table 18

Definition of the Constructs for the LCA Analysis

Items	Description
Q10a-Q10i	Standard ELA content coverage
Q 11a- Q 11g	ELL content coverage
Q 12a- Q 12f	Classroom assessment practice
Q 13a- Q 13i	ELL process activities

Table 19

LCA Measurement Models Summary

	Standard ELA content coverage	ELL content coverage		Classroom assessment practice	ELL process activities
	2 classes	2 classes	1 class	2 classes	2 classes
BIC	845.91	594.68	607.78	539.35	888.52
LMR-LRT (p-value)	0.24	0.28		0.02	0.03
Entropy	0.96	0.92		0.99	0.97
Classes:					
C1	14 (44%)	14 (50%)		15 (54%)	14 (47%)
C2	18 (56%)	14 (50%)		13 (46%)	16 (53%)

The following tables, 20 through 25, present the estimated mean values for each of the items within each of the latent classes. These class-specific mean values are useful for understanding the character of the classes. For all four constructs, the classes are similarly defined: Class 1 represents those teachers that responded low in all the items, and Class 2 represents those teachers that answered high in all the items.

Table 20

LCA Model Results: Standard ELA Content Coverage (Q10)

Standard ELA content coverage	Estimated means	S.E.	Est./S.E.
Latent Class 1			
Q10B	3.66	0.27	13.47
Q10C	3.38	0.37	9.14
Q10D	4.29	0.39	11.03
Q10E	4.22	0.36	11.66
Q10F	4.01	0.44	9.14
Q10G	3.72	0.28	13.13
Q10H	2.80	0.35	7.89
Q10I	2.80	0.24	11.52
Latent Class 2			
Q10B	5.56	0.15	37.17
Q10C	4.94	0.29	16.94
Q10D	5.62	0.15	38.57
Q10E	5.56	0.12	45.57
Q10F	5.56	0.15	37.69
Q10G	5.51	0.21	26.41
Q10H	4.78	0.32	15.02
Q10I	5.34	0.19	27.93

Table 21

LCA Model Results: ELL Content Coverage (Q11)

ELL content coverage	Estimated means	S.E.	Est./S.E.
Latent Class 1			
Q11A	3.71	0.29	12.78
Q11B	2.53	0.28	9.11
Q11C	2.88	0.17	16.94
Q11D	2.47	0.20	12.48
Q11E	2.80	0.30	9.22
Q11F	2.44	0.18	13.59
Q11G	2.00	0.14	14.11
Latent Class 2			
Q11A	4.31	0.27	16.18
Q11B	3.49	0.33	10.60
Q11C	4.65	0.22	21.63
Q11D	4.06	0.24	17.12
Q11E	3.93	0.22	18.23
Q11F	3.95	0.33	12.15
Q11G	3.31	0.31	10.72

Table 22

LCA Model Results: Classroom Assessment Practice (Q12)

Classroom assessment practice	Estimated means	S.E	Est./S.E.
Latent Class 1			
Q12A	2.67	0.25	10.83
Q12B	3.20	0.32	10.07
Q12C	2.94	0.22	13.19
Q12D	2.47	0.13	18.71
Q12E	2.21	0.22	10.17
Q12F	3.34	0.35	9.52
Latent Class 2			
Q12A	4.46	0.32	13.88
Q12B	5.16	0.19	27.72
Q12C	5.00	0.19	26.03
Q12D	4.93	0.21	23.87
Q12E	4.46	0.26	17.11
Q12F	5.00	0.22	22.73

Table 23

Model Results: ELL Process Activity (Q13)

ELL process activity	Estimated means	S.E.	Est./S.E.
Latent Class 1			
Q13A	3.36	0.20	17.15
Q13B	3.43	0.32	10.69
Q13C	3.78	0.25	14.90
Q13D	4.07	0.34	11.85
Q13E	4.07	0.24	16.66
Q13F	3.71	0.30	12.47
Q13G	3.07	0.22	14.12
Q13H	3.43	0.17	20.19
Q13I	2.43	0.34	7.18
Latent Class 2			
Q13A	5.06	0.23	22.14
Q13B	5.06	0.25	20.67
Q13C	5.00	0.32	15.41
Q13D	5.06	0.30	16.70
Q13E	5.31	0.15	35.33
Q13F	5.00	0.27	18.83
Q13G	4.94	0.23	21.40
Q13H	4.93	0.17	28.83
Q13I	4.43	0.42	10.59

In order to help characterize these two different sets of responders, a post-hoc investigation of correlates related to the two classes was conducted based on modal class assignment. Given the small sample size, we opted for post-hoc analyses rather than including the correlates in the LCA models. Technically, this analysis is a bit less conservative since it does not account for the uncertainty of class membership and should be treated as a more descriptive and exploratory technique. However, with estimated classification precision as high as it was for our final model, there is likely to be little change to the inferences regarding the possible correlates, and there is an ease in interpretability not present when including such correlates simultaneously within the LCA framework.

To understand the pattern of responses found in the two classes, several different background variables were investigated to explain class membership. Based on our post-hoc analysis, we found that the total number of English or language arts content courses that the teacher took in his or her undergraduate and graduate studies (no course) was the only significant variable related to class membership in two of the four constructs. This suggests that for the Standard ELA Content Coverage and ELL Content Coverage constructs, level of education, operationalized as the number of courses taken, seems to be the best predictor for whether a teacher would respond high or low on these sets of items. In other words, teachers who are in Class 1 (characterized as teachers providing low OTL), are also those teachers with lower levels of education. The results are presented in Table 24.

Table 24

Including "No courses" to Predict Class Membership: Model Summary

Construct	Entropy	Classes count	'No courses' log-odds (s.e.)	Estimated means for 'no course'	L-M-R-A LRT Test (p-value)
Standard ELA content coverage	0.96	C1: 14 C2: 18	-0.35* (0.11)	C1: 2.28 C2: 7.63	0.28
ELL content coverage	0.96	C1: 20 C2: 8	-0.23* (0.10)	C1: 3.95 C2: 9.18	0.34
Classroom assessment practice	0.99	C1: 15 C2: 13	0.03 (0.08)	C1: 5.33 C2: 4.77	0.03
ELL process activities	0.96	C1: 14 C2: 16	-0.10 (0.11)	C1: 4.46 C2: 6.52	0.05

Although statistically not significant, we also examined whether there were trends related to class membership and trained status (participating in the training versus not participating in the training). As shown by the cross-tab in Table 25, a larger proportion of the comparison group teachers belong to Class 2. This suggests that more comparison group teachers responded high on the items related to Standard ELA Content Coverage. Eight out of 12 comparison group teachers (67%) belong to Class 2 compared to 10 out of 20 for trained group teachers (50%).

Table 25

Frequency and Percentage Distribution of ELA Content Coverage Class Membership by Training Status

	ELA content coverage class		
	1	2	Total
Comparison	4 (33%)	8 (67%)	12 (100%)
Trained	10 (50%)	10 (50%)	20 (100%)
Total	14 (44%)	18 (56%)	32 (100%)

Also, as shown in Table 26, for items related to Classroom Assessment Practice, more trained group teachers belong to Class 1 compared to comparison group teachers. Of those in the trained group, 58% of the teachers responded lower on these items compared to 44% of the comparison group teachers. Although statistically not significant due to a small sample size, this trend suggests that teachers who received training were more knowledgeable of the concepts targeted in the survey and thus were better able to self-evaluate their practices.

Table 26

Frequency and Percentage Distribution of Classroom Assessment Class Membership by Training Status

	Classroom assessment practice class		
	1	2	Total
Comparison	4 (44%)	5 (56%)	9 (100%)
Trained	11 (58%)	8 (42%)	19 (100%)
Total	15 (54%)	13 (46%)	28 (100%)

RESULTS FROM HLM

In this section, we present the overall findings from the HLM analysis. The primary goal of the HLM analyses was to address our second research question: *What is the impact of academic language and other OTL indicators on ELLs' and non-ELLs' performance on LAPA?* First, each of the four LAPA scores (i.e., Holistic; Dimension 1: Noun Phrases; Dimension 2: Lexical Density; and Dimension 3: Character References) were analyzed separately to examine if the impact of OTL remained consistent or if there was a differential impact of OTL across the four dimensions of the LAPA. The last section of this section describes overall trends regarding the relationship between OTL and LAPA scores and highlights findings common across all four outcomes.

HLM Analysis

At Level-1, we first examined the relationship between student background characteristics and student performance on each of the four LAPA scores. Student background characteristics included scores on the CAT-6 language arts test, ethnicity, gender, grade level, and ELL status. Since the LAPA was administered to all participating middle school students ranging from Grade 6 to Grade 8, we checked for any systematic differences across different grade levels on student performance. We also examined the relationship between LAPA scores and CAT- 6 (California Achievement Test, Sixth Edition) scores, which is a national norm-referenced, standardized test published by CTB/McGraw-Hill. This multiple-choice test replaced the SAT-9 as the statewide standardized achievement test in the spring 2003 testing cycle. Although achievement scores from the previous year are typically used as a covariate to control for any initial differences in ability, since those scores were not available, we used CAT-6 scores from the same academic year to examine the level of association between the LAPA and other concurrent measures of achievement. For the purposes of analysis, we converted percentile rank CAT-6 scores to normal curve equivalent (NCE) scores because the percentile ranks are based on unequal interval changes in scores, therefore, the mean group percentile rank could be misleading. However, NCE scores are based on a normal distribution designed to approximate percentile rank norms.

To examine the impact of OTL on student performance, we explored 11 different two-level ordinal logistic HLM models. Given that our research question is

related to the impact of academic language (operationalized as functional grammar in this study) on students' language arts performance, we included the level of functional grammar implementation in all of the models and examined this together along with one of the other 11 OTL variables in any given model. Ideally, we would have examined the effect of all 12 OTL variables simultaneously, but due to sample size restrictions, we examined the impact of the 11 OTL variables separately, with functional grammar implementation (the 12th OTL variable) being the common OTL variable in each model. Given that the functional grammar OTL variable was a key variable, we wanted to include this variable in all the models to check for consistency and the overall significance and unique contribution of this variable in explaining the student outcome accounting for all other OTL effects. As mentioned in the analysis section, based on the descriptive analyses, we found systematic differences in student performance by school. Therefore, in all the models, we included schools as a covariate in order to control for the initial differences across the three schools. We also included the proportion of ELLs in classrooms in all the models in order to control for initial differences in LAPA scores due to different proportions of ELLs in each classroom. Correspondingly, for each of the four LAPA scores, we looked at the effect of (a) school differences, (b) proportion of ELLs, (c) functional grammar implementation, and (d) one additional OTL variable. A description of our general model is provided below.

p_m : Prob.(outcome category = m)

p_m^* : Prob. (outcome category $\leq$ m) = $p_1 + p_2 + \cdots + p_m$ (therefore, $p_4^* = 1$)

(*category 1 : the highest, category 4 : the lowest)

Level 1 model

$$\log it(p^*_{1ij}) = \log\left(\frac{p^*_{1ij}}{1-p^*_{1ij}}\right)$$
$$= \beta_{0j} + \beta_{1j}(GRD7_{ij}) + \beta_{2j}(GRD8_{ij}) + \beta_{3j}(MALE_{ij}) + \beta_{4j}(HISP_{ij}) + \beta_{5j}(NCE_{ij}) + \beta_{6j}(EL_{ij})$$

$$\log it(p^*_{2ij}) = \log\left(\frac{p^*_{2ij}}{1-p^*_{2ij}}\right)$$
$$= \beta_{0j} + \beta_{1j}(GRD7_{ij}) + \beta_{2j}(GRD8_{ij}) + \beta_{3j}(MALE_{ij}) + \beta_{4j}(HISP_{ij}) + \beta_{5j}(NCE_{ij}) + \beta_{6j}(EL_{ij}) + \delta_{2j}$$

$$\log it(p^*_{3ij}) = \log\left(\frac{p^*_{3ij}}{1-p^*_{3ij}}\right)$$
$$= \beta_{0j} + \beta_{1j}(GRD7_{ij}) + \beta_{2j}(GRD8_{ij}) + \beta_{3j}(MALE_{ij}) + \beta_{4j}(HISP_{ij}) + \beta_{5j}(NCE_{ij}) + \beta_{6j}(EL_{ij}) + \delta_{3j}$$

Level 2 model

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(LOS_j) + \gamma_{02}(TOR_j) + \gamma_{03}(OTL_j) + \gamma_{04}(FUNC_j) + \gamma_{05}(AV.EL_j) + u_{0j}$$
$$\beta_{1j} = \gamma_{10}$$
$$\beta_{2j} = \gamma_{20}$$
$$\beta_{3j} = \gamma_{30}$$
$$\beta_{4j} = \gamma_{40}$$
$$\beta_{5j} = \gamma_{50}$$
$$\beta_{6j} = \gamma_{60} + \gamma_{61}(LOS_j) + \gamma_{62}(TOR_j) + \gamma_{63}(OTL_j) + \gamma_{64}(FUNC_j) + \gamma_{65}(AV.EL_j) + u_{6j}$$
$$\delta_{2j} = \delta_2 \text{ and, } \delta_{3j} = \delta_3$$

As illustrated by the model equations, we examined the impact of functional grammar implementation with one additional OTL variable (*OTLj*) in the model after controlling for school differences and the proportion of ELLs in classrooms. We also examined whether OTL variables impacted ELLs specifically. The list of 11 OTL variables considered in addition to functional grammar implementation in each of the 11 models includes: (a) classroom assessment practices, (b) credential status (teacher), (c) standard ELA content coverage, (d) ELL-specific content coverage, (e) ELL process strategies, (f) teacher content expertise, (g) completed graduate studies (teacher), (h) number of English/language arts content and/or method courses taken in undergraduate and graduate studies (teacher), (i) teacher's effectiveness at providing clear content expectations, (j) engagement in enticement activities, and (k) ELL support strategies. The descriptive information about these variables, along with functional grammar, is provided in Table 27.

As described in the previous section, variables such as classroom assessment practice, ELL-specific process activities, engagement in enticement activities, and ELL support strategies are all characterized as Access and Development indicators under the new OTL framework. The variables related to Teacher Expertise/Experience in the analysis include credential status, teacher content expertise, completed graduate studies, and number of English/language arts content and/or method courses taken in undergraduate and graduate studies. Under Content Exposure, standard ELA content coverage; ELL-specific content coverage (academic language instruction); teacher's effectiveness at providing clear content expectations; and LAPA functional grammar implementation (based on interview data) are the variables included in the analysis.

Table 27

Descriptive Information on the Teacher Level Variables

OTL variables	N	Minimum	Maximum	Mean	Std. deviation
Content exposure					
1. LAPA functional grammar (Interview data)	30.00	0.00	3.00	1.27	1.23
2. ELA content coverage	32.00	1.22	6.00	4.68	1.09
3. Teacher's effectiveness at providing clear content expectations	32.00	0.27	3.82	2.25	0.97
4. Academic language/ functional grammar (survey data)	32.00	1.29	5.86	3.23	0.88
Access and development					
5. ELL process strategies (survey data)	32.00	2.67	6.00	4.28	0.94
6. Engagement in enticement activities (observation data)	32.00	0.10	3.60	1.87	0.98
7. ELL process strategies (interview data)	30.00	0.00	3.00	1.53	0.90
8. Classroom assessment practice	32.00	1.83	5.67	3.78	1.17
Teacher expertise & experience					
9. Teacher content expertise	32.00	2.20	6.00	4.29	0.92
10. Completed graduate studies	32.00	0.00	1.00	0.66	0.48
11. Number of ELA courses	32.00	0.00	16.00	5.22	4.89
12. Credential status	32.00	0.00	1.00	0.75	0.44

The correlations among the variables are shown in Table 28. As seen in Table 28, although statistically not significant, most of the OTL constructs measured by surveys (Teacher Content Expertise, Standard ELA Content Coverage, ELL Content Coverage/Functional Grammar, ELL Process Strategies, and Classroom Assessment Practices) were negatively correlated with both the observation data and the level of functional grammar implementation and ELL process strategies derived from interview data.

Table 28

Correlation Among the OTL Variables

OTL variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Feedback & assessment	1.00											
2. Credential status	0.04	1.00										
3. Standard ELA content coverage	0.53[a]	0.33	1.00									
4. ELL content coverage/ functional grammar	0.72[a]	0.16	0.45[a]	1.00								
5. ELL process strategies	0.51[a]	0.15	0.27	0.37[b]	1.00							
6. Teacher content expertise	0.23	0.43[a]	0.54[a]	0.23	-0.08	1.00						
7. Completed graduate studies	-0.29	0.04	-0.06	-0.19	-0.17	-0.14	1.00					
8. Number of ELA courses	0.12	0.40[b]	0.52[a]	0.33	0.21	0.47[a]	0.10	1.00				
9. Teacher's effectiveness at providing clear content expectations	-0.27	0.00	-0.09	-0.38[b]	0.10	-0.07	0.03	-0.31	1.00			
10. Engagement in enticement activities	-0.10	0.02	0.01	-0.32	0.18	-0.02	0.23	-0.01	0.62[a]	1.00		
11. ELL process strategies (interview)	0.07	0.29	0.25	0.08	0.07	0.27	-0.13	0.31	0.17	0.27	1.00	
12. LAPA functional grammar	-0.31	0.23	0.12	-0.18	-0.24	0.37[b]	0.32	0.04	0.40[b]	0.21	-0.04	1.00

[a] Significant at 0.01 level. [b] Significant at 0.05 level.

LAPA scores. Overall, the average performance on the LAPA holistic was only partially proficient ($\mu = 2.19$) on a four-point scale. The mean for the students from the trained teachers ($\mu = 2.34$) was slightly higher than students from the comparison group teachers ($\mu = 1.98$). As shown in Table 29, the means for the three

academic language dimensions were similar across all three scores. Again, the students from the trained teachers performed slightly higher than the students from the comparison group teachers on all three dimensions.

Table 29

Mean LAPA scores

	Total (N=36, 1606)		Comparison (N=15, 678)		Trained (N=21, 928)	
	Mean	SD	Mean	SD	Mean	SD
LAPA_H	2.19	0.54	1.98	0.47	2.34	0.55
LAPA D1	1.49	0.33	1.37	0.22	1.58	0.36
LAPA D2	1.63	0.32	1.50	0.26	1.72	0.34
LAPA D3	1.67	0.25	1.58	0.24	1.74	0.24

LAPA – Holistic HLM Results

As shown in Table 30, the two-level HLM results indicate that the functional grammar implementation was positively associated with LAPA *holistic scores*. We consistently found that students in classes with teachers who had high functional grammar implementation (based on teacher ratings described above) had higher performance on the LAPA than students in classrooms with low implementation of functional grammar concepts in all 11 models. As illustrated in Figure 3, the probability of receiving a score of 3 or 4 on the LAPA increases as the level of functional grammar implementation increases. This finding was consistent for all 11 models that we examined with LAPA holistic scores as an outcome.

Table 30

HLM Results for Holistic Scores

	ASSESS	Credential	ELAcont	ELLcont	ELLprcss	Expert
Common intercept, β_{0j}						
Mean intercept, γ_{00}	-2.77[a]	-3.04[a]	-2.65[b]	-2.16[b]	-1.76	-2.87[b]
Los Niños, γ_{01}	1.29[b]	1.47[b]	1.27[b]	1.26[b]	1.17[b]	1.29[b]
Casi, γ_{02}	1.82[b]	1.93[b]	1.81[b]	1.84[b]	1.77[b]	1.83[b]
OTL effect, γ_{03}	-0.02	-0.60	0.02	0.17	0.22	-0.04
Functional Grammar, γ_{04}	0.53[b]	0.58[a]	0.51[b]	0.56[a]	0.59[a]	0.55[b]
AVERAGE EL, γ_{05}	-0.75	-0.86	-0.76	-0.83	-0.97	-0.77
Grade difference (7 and others), γ_{10}	0.13	0.11	0.15	0.02	-0.06	0.10
Grade difference (8 and others), γ_{20}	0.97	0.83	0.99	0.99	0.90	0.95
Gender difference (male), γ_{30}	-0.31[b]	-0.31[b]	-0.31[b]	-0.30[b]	-0.31[b]	-0.31[b]
Hispanic, γ_{40}	-0.59[b]	-0.60[b]	-0.59[b]	-0.59[b]	-0.59[b]	-0.59[b]
NCE score, γ_{50}	0.04[a]	0.04[a]	0.04[a]	0.04[a]	0.04[a]	0.04[a]
Difference b/w EL and non EL, β_{6j}						
Mean intercept, γ_{60}	0.68	0.49	1.48	0.16	-0.06	0.56
Los Niños, γ_{61}	0.50	0.59	0.35	0.52	0.54	0.51
Casi, γ_{62}	-1.68	-1.62	-1.70	-1.75	-1.86	-1.68
OTL effect, γ_{63}	0.01	-0.20	0.18	-0.14	-0.14	-0.02
FUNCTIONAL GRAMMAR, γ_{64}	0.29	0.29	0.30	0.26	0.25	0.29
AVERAGE EL, γ_{65}	0.52	0.48	0.59	0.57	0.51	0.53
Threshold(2), δ_2	2.32[a]	2.31[a]	2.32[a]	2.32[a]	2.31[a]	2.32[a]
Threshold(3), δ_3	4.48[a]	4.48[a]	4.48[a]	4.48[a]	4.48[a]	4.48[a]

Table 30 (continued)

HLM results for Holistic score

	Graduate	No course	Sengage	Ste	LAPAELL
Common intercept, β_{0j}					
Mean intercept, γ_{00}	-2.59[a]	-2.48[a]	-2.06[a]	-1.60[b]	-2.37[a]
Los Niños, γ_{01}	1.28[b]	1.22[b]	0.87	0.83	1.03
CASI, γ_{02}	1.84[b]	1.78[b]	1.49	1.25	1.50
OTL effect, γ_{03}	0.12	0.04	0.40	0.56[b]	0.34
FUNCTIONAL GRAMMAR, γ_{04}	0.52[b]	0.53[a]	0.51[a]	0.43[b]	0.55[a]
AVERAGE ELL, γ_{05}	-0.73	-0.65	-0.77	-0.85	-0.65
Grade difference (7 and others), γ_{10}	0.03	0.08	0.04	0.17	0.34
Grade difference (8 and others), γ_{20}	0.94	1.04	0.76	0.31	1.14
Gender difference (male), γ_{30}	-0.31[b]	-0.31[b]	-0.30[b]	-0.32[b]	-0.31[b]
Hispanic, γ_{40}	-0.59[b]	-0.60[b]	-0.59[b]	-0.62[b]	-0.60[b]
NCE score, γ_{50}	0.04[a]	0.04[a]	0.04[a]	0.04[a]	0.04[a]
Difference b/w ELL and non ELL, β_{6j}					
Mean intercept, γ_{60}	0.41	1.02	0.12	0.21	0.70
Los Niños, γ_{61}	0.434	0.46	0.70	0.71	0.47
CASI, γ_{62}	-1.65	-1.51	-1.66	-1.10	-1.69
OTL effect, γ_{63}	-0.40	0.04	-0.24	-0.25	0.05
FUNCTIONAL GRAMMAR, γ_{64}	0.33	0.30	0.32	0.323	0.28
AVERAGE ELL, γ_{65}	0.52	0.71	0.29	0.42	0.57
Threshold(2), δ_2	2.32[a]	2.31[a]	2.31[a]	2.32[a]	2.31[a]
Threshold(3), δ_3	4.49[a]	4.48[a]	4.49[a]	4.49[a]	4.48[a]

Note: [a]Significant at 0.01 level. [b]Significant at 0.05 level.

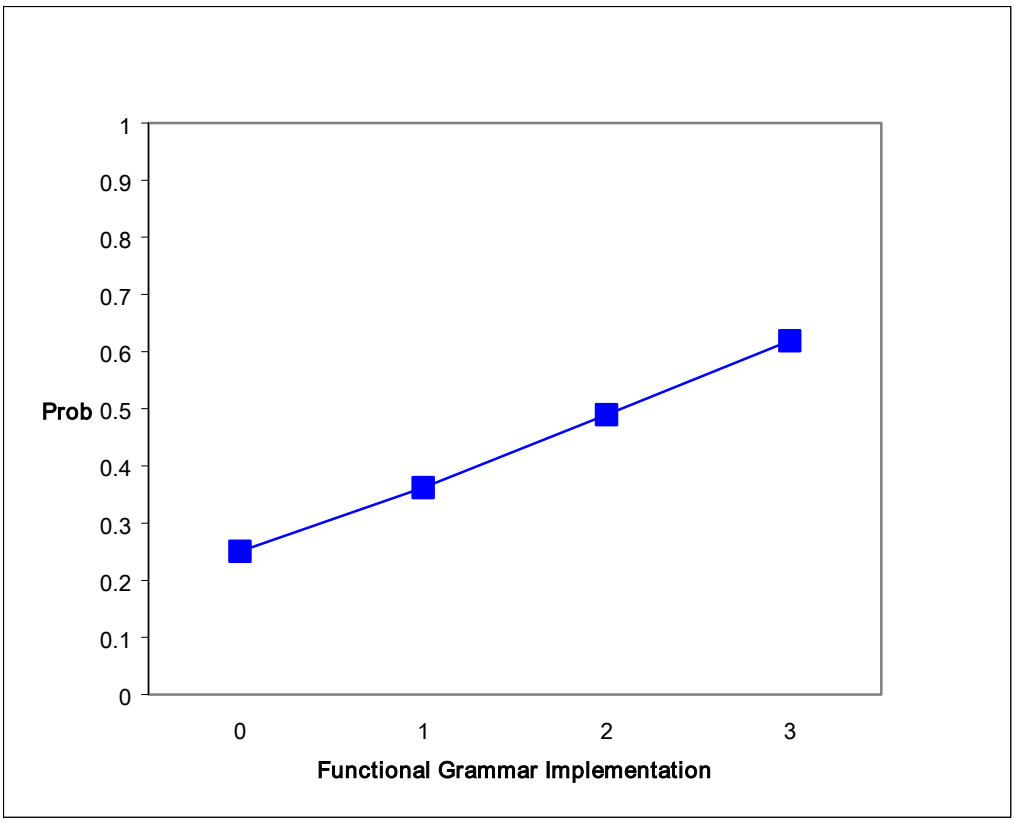

Figure 3. Functional grammar implementation and holistic score.

In addition to the functional grammar implementation effect, we found that teachers who provided clear learning expectations (based on the observation data) seemed to also have a positive impact on student outcomes. However, none of the other OTL variables were significantly associated with student performance on the LAPA after taking into account the effect of functional grammar implementation.

We also discovered that there was a systematic school effect on student performance. The results indicate that students enrolled in Casi and Los Niños Middle Schools performed consistently higher than the students in Wood Middle School.

The HLM results indicate that the CAT-6 language arts scores were positively associated with LAPA holistic scores. This finding was consistent for all 11 models that we examined with LAPA holistic scores as an outcome. Also, in terms of student background characteristics, gender and ethnicity were both significantly associated with LAPA holistic score. The results show that female students out-performed their male counterparts. This result is consistent with literature regarding the performance gap between males and females on language arts content. We

found that Hispanic students performed significantly lower on the LAPA compared to other students, which is also consistent with other studies (e.g., Abedi et al., 2000). Finally, although the LAPA was administered at three different grade levels (6-8), there seem to be no systematic differences in student performance across the different grade levels. While an argument could be made that this lack of significance indicates that the assessment exhibits low instructional sensitivity, this is likely attributed to both the student population targeted by this study (Hispanic ELLs) and the overlap in the language arts curriculum at the middle school in terms of literary analysis.

Further examining the California Standards for English language arts (1999), there is considerable overlap in what is expected for characterizations: Comprehension and Analysis of Grade-Level-Appropriate Text and Writing Applications: Genres and their characteristics. Teachers working with ELLs tend to focus on those skills that they deem appropriate for ELLs. Unfortunately, teachers tend to focus on superficial content during instruction, which would be the same across grade levels in this topic area (see August & Hakuta, 1997). Qualitative results indicate that the expectations for ELLs across grade levels were similar in terms of literary analysis especially among the comparison group. In other words the lack of significance in performance across grade levels is also likely due to teachers' tendency to narrow the curriculum under the guise of providing scaffolded instruction to ELLs. (This is further discussed in the discussion section at the conclusion of this report.)

LAPA - Dimension 1 (Noun Phrases: Describe Persons, Animals, Things, and Concepts)

For Dimension 1 of the LAPA, the two-level HLM results indicate that the CAT-6 language arts score was the only student background variable that was positively associated with LAPA Dimension 1 scores (see Table 31). Contrary to the LAPA holistic analyses, we did not find any statistically significant differences in performance across gender for Dimension 1.

Again, we did find that students in classes with teachers who had high functional grammar implementation also had higher performance on LAPA Dimension 1 than students in classrooms with teachers who had low implementation of functional grammar concepts (see Table 31). After controlling for initial school differences and the proportion of ELLs in the classroom, we found that none of the other OTL variables were significantly associated with performance on Dimension 1.

In contrast to our findings with the LAPA holistic scores, for Dimension 1, there were no systematic school differences. However, we found that the proportion of ELLs in the classroom was negatively associated with Dimension 1 scores. Although individual student ELL status was not a significant factor, the proportion of ELLs in the classrooms had a negative impact on student performance on Dimension 1. Students in classrooms with higher proportions of ELLs performed lower on Dimension 1 compared to students in classrooms with lower proportions of ELLs. This suggests that ELL status may be an important indicator affecting teacher expectations of student performance, beyond that of grade level affiliation. This trend is aligned with the findings of Abedi et al. (2000) described in the introduction section, which demonstrated that students' language proficiency status was negatively associated with performance on NAEP in mathematics. Namely, that teacher expectations were associated with the proportion of minority students in their classrooms.

Table 31

HLM Results for Dimension 1

	ASSESS	Credential	ELAcont	ELLcont	ELLprocss	Expert
For common intercept, β_{0j}						
Mean intercept, γ_{00}	-3.05[a]	-2.49[a]	-3.07[a]	-2.46[a]	-2.83[a]	-2.77[a]
Los Niños, γ_{01}	0.61	0.53	0.65	0.56	0.56	0.58
CASI, γ_{02}	1.10	1.09	1.11	1.12	1.08	1.15
OTL effect, γ_{03}	-0.13	0.13	-0.12	0.03	-0.07	-0.06
FUNCTIONAL GRAMMAR, γ_{04}	0.31[b]	0.34[b]	0.37[b]	0.36[b]	0.34[b]	0.37[b]
AVERAGE ELL, γ_{05}	-0.91	-0.96	-1.03[b]	-1.01[b]	-0.94	-1.02[b]
Grade difference (7 and others), γ_{10}	-0.01	-0.03	-0.07	-0.04	-0.06	-0.05
Grade difference (8 and others), γ_{20}	0.15	0.24	0.09	0.21	0.16	0.16
Gender difference (male), γ_{30}	-0.22	-0.22	-0.22	-0.22	-0.22	-0.22
Hispanic, γ_{40}	-0.44	-0.44	-0.43	-0.44	-0.44	-0.44
NCE score, γ_{50}	0.02[a]	0.02[a]	0.02[a]	0.02[a]	0.02[a]	0.02[a]
For difference b/w ELL and non ELL, β_{6j}						
Mean intercept, γ_{60}	11.82	--11.70	-9.01	10.39	14.39	-8.55
Los Niños, γ_{61}	-0.05	0.06	-0.52	-0.04	0.10	-0.09
CASI, γ_{62}	-43.42	-41.68	-42.87	39.44	45.72	33.59
OTL effect, γ_{63}	0.05	-0.21	0.55	0.17	-0.40	0.19
FUNCTIONAL GRAMMAR, γ_{64}	0.23	0.22	0.24	0.23	0.12	0.17
AVERAGE ELL, γ_{65}	-0.30	-0.33	0.27	-0.33	-0.19	-0.25
Threshold(2), δ_2	2.20[a]	2.20[a]	2.20[a]	2.20[a]	2.20[a]	2.19[a]

Table 31 (continued)

HLM Results for Dimension 1

	Graduate	No course	Sengage	Ste	LAPAELL
For common intercept, β_{0j}					
Mean intercept, γ_{00}	-2.26[a]	-2.56[a]	-2.32[a]	-1.81[a]	-2.60[a]
Los Niños, γ_{01}	0.56	0.56	0.45	0.25	0.59
CASI, γ_{02}	1.12	1.06	1.04	0.80	1.16
OTL effect, γ_{03}		-0.00	0.14	0.35	-0.04
FUNCTIONAL GRAMMAR, γ_{04}	0.31[b]	0.35[b]	0.33[b]	0.31	0.35[b]
AVERAGE ELL, γ_{05}	-0.90	-0.98	-0.95[b]	-1.07[b]	-1.01[b]
Grade difference (7 and others), γ_{10}	-0.24	-0.06	-0.09	-0.05	-0.07
Grade difference (8 and others), γ_{20}	0.11	0.17	0.17	-0.28	0.17
Gender difference (male), γ_{30}	-0.22	-0.22	-0.21	-0.23	-0.29
Hispanic, γ_{40}	-0.44	-0.45	-0.41	-0.45	-0.44
NCE score, γ_{50}	0.02[a]	0.02[a]	0.02[a]	0.02[a]	0.02[a]
For difference b/w ELL and non ELL, β_{6j}					
Mean intercept, γ_{60}	13.26	13.00	-13.19	-7.68	-10.55
Los Niños, γ_{61}	-0.03	-0.04	0.37	0.23	0.04
CASI, γ_{62}	-47.96	-49.02	-43.88	-23.46	-38.25
OTL effect, γ_{63}	-0.01	0.05	-0.50	-0.51	0.02
FUNCTIONAL GRAMMAR, γ_{64}	0.21	0.26	0.28	0.32	0.21
AVERAGE ELL, γ_{65}	-0.23	0.06	-0.64	-0.56	-0.25
Threshold(2), δ_2	2.20[a]	2.20[a]	2.19[a]	2.21[a]	2.20[a]
Threshold(3), δ_3	4.49[a]	4.48[a]	4.49[a]	4.49[a]	4.48[a]

Note: [a] Significant at 0.01 level. [b] Significant at 0.05 level.

LAPA - Dimension 2 (Lexical Density: Provide Circumstantial Expressions)

As shown in Table 32, after controlling for systematic school differences, we again found that students in classes with teachers who had high functional grammar implementation also had higher performance on Dimension 2 of the LAPA than did students in classrooms with low implementation of functional grammar concepts. None of the other OTL variables were significant after taking the functional grammar effect into account. However, we did find again that students in classrooms with higher proportions of ELLs performed significantly lower than students with a smaller proportion of ELLs.

For LAPA Dimension 2, we also found that the NCE (CAT-6) language arts scores were positively associated with this LAPA subscale score. Again, this finding was consistent for all analyses conducted with LAPA Dimension 2 scores as the outcome. We also found a statistically significant difference between male and female students on Dimension 2 of the LAPA. Similar to what we found during the analysis of the LAPA holistic score, Dimension 2 results indicate that female students out-performed their male counterparts.

Table 32

HLM Results for Dimension 2

	ASSESS	Credential	ELAcont	ELLcont	ELLprocss	Expert
For common intercept, β_{0j}						
Mean intercept, γ_{00}	-2.71[a]	-2.57[a]	-2.62[a]	-2.40[a]	-2.89[a]	-2.52[a]
Los Niños, γ_{01}	0.64[b]	0.62	0.64	0.62	0.66[b]	0.63[b]
CASI, γ_{02}	1.60[a]	1.61[a]	1.61[a]	1.61[a]	1.62[a]	1.61[a]
OTL effect, γ_{03}	-0.03	0.02	-0.01	0.06	-0.07	0.02
FUNCTIONAL GRAMMAR, γ_{04}	0.41[a]	0.41[a]	0.42[a]	0.42[a]	0.40[a]	0.41[a]
AVERAGE ELL, γ_{05}	-0.88[b]	-0.89[b]	-0.89 [b]	-0.92[b]	-0.84[b]	-0.89[b]
Grade difference (7 and others), γ_{10}	0.23	0.22	0.22	0.19	0.26	0.23
Grade difference (8 and others), γ_{20}	0.50	0.52	0.51	0.52	0.54	0.53
Gender difference (male), γ_{30}	-0.33[b]	-0.33[b]	-0.33[b]	-0.32[b]	-0.32[b]	-0.32[b]
Hispanic, γ_{40}	-0.30	-0.30	-0.29	-0.29	-0.29	-0.29
NCE score, γ_{50}	0.03[a]	0.03[a]	0.03[a]	0.03[a]	0.03[a]	0.03[a]
For difference b/w ELL and non ELL, β_{6j}						
Mean intercept, γ_{60}	0.84	0.18	-0.06	0.51	-0.06	0.70
Los Niños, γ_{61}	0.35	0.53	0.48	0.37	0.41	0.35
CASI, γ_{62}	-0.86	-0.85	-0.87	-0.87	-0.99	-0.86
OTL effect, γ_{63}	0.08	-0.40	-0.11	0.01	-0.11	0.05
FUNCTIONAL GRAMMAR, γ_{64}	0.22	0.23	0.18	0.19	0.17	0.18
AVERAGE ELL, γ_{65}	0.08	-0.06	0.03	0.10	0.08	0.12
Threshold(2), δ_2	3.00	3.00[a]	3.00[a]	3.00[a]	3.01[a]	3.00[a]

Table 32 (continued)

HLM Results for Dimension 2

	Graduate	No course	Sengage	Ste	LAPAELL
For common intercept, β_{0j}					
Mean intercept, γ_{00}	-2.48[a]	-2.45[a]	-2.32[a]	-2.42[a]	-2.57[a]
Los Niños, γ_{01}	0.63[b]	0.61[b]	0.48	0.56	0.62
CASI, γ_{02}	1.62[a]	1.63[a]	1.51[a]	1.52[a]	1.60[a]
OTL effect, γ_{03}	0.11	0.03	0.14	0.08	0.01
FUNCTIONAL GRAMMAR, γ_{04}	0.40[a]	0.41[a]	0.40[a]	0.40[a]	0.425[a]
AVERAGE ELL, γ_{05}	-0.86[b]	-0.8080[b]	-0.87[b]	-0.90[b]	-0.89[b]
Grade difference (7 and others), γ_{10}	0.16	0.22	0.18	0.22	0.23
Grade difference (8 and others), γ_{20}	0.49	0.60	0.44	0.42	0.52
Gender difference (male), γ_{30}	-0.32[b]	-0.32[b]	-0.33[b]	-0.33[b]	-0.32[b]
Hispanic, γ_{40}	-0.29	-0.28	-0.29	-0.30	-0.29
NCE score, γ_{50}	0.03[a]	0.03[a]	0.03[a]	0.03[a]	0.03[a]
For difference b/w ELL and non ELL, β_{6j}					
Mean intercept, γ_{60}	0.44	0.15	0.44	0.33	0.40
Los Niños, γ_{61}	0.35	0.40	0.41	0.46	0.45
CASI, γ_{62}	-0.86	-1.04	-0.86	-0.74	-0.75
OTL effect, γ_{63}	-0.12	-0.03	-0.03	-0.11	-0.08
FUNCTIONAL GRAMMAR, γ_{64}	0.21	0.16	0.19	0.22	0.17
AVERAGE ELL, γ_{65}	0.11	-0.05	0.09	0.10	0.12
Threshold(2), δ_2	3.00[a]	3.00[a]	3.00[a]	3.00[a]	3.01[a]
Threshold(3), δ_3	4.49[a]	4.48[a]	4.49[a]	4.49[a]	4.48[a]

Note: [a] Significant at 0.01 level. [b] Significant at 0.05 level.

LAPA - Dimension 3 (Character References: Achieve Well-Balanced Participants)

For LAPA Dimension 3, we also found that students in classes with teachers who had high functional grammar implementation also had higher scores on Dimension 3 of the LAPA than did students in classrooms with low implementation of functional grammar concepts (see Table 33). None of the other OTL variables were significant factors for the performance on Dimension 3.

Consistent with previous results, at the student level, the CAT-6 language arts scores were positively associated with LAPA Dimension 3 scores (see Table 33). We again found a statistically significant difference between males and females on the LAPA Dimension 3 scores, with female students, on average, scoring higher than male students.

Table 33

HLM Results for Dimension 3

	ASSESS	Credential	ELAcont	ELLcont	ELLprocss	Expert
For common intercept, β_{0j}						
Mean intercept, γ_{00}	-2.34[a]	-2.00[a]	-2.25[a]	-2.01[b]	-2.57[a]	-1.66[b]
Los Niños, γ_{01}	0.46	0.50	0.51	0.42	0.47	0.41
CASI, γ_{02}	0.89	0.95	0.93	0.88	0.89	0.88
OTL effect, γ_{03}	-0.13	-0.22	-0.09	-0.05	-0.18	0.06
FUNCTIONAL GRAMMAR, γ_{04}	0.28	0.33[b]	0.32[b]	0.31[b]	0.29[b]	0.30[b]
AVERAGE ELL, γ_{05}	0.19	0.08	0.11	0.13	0.25	0.13
Grade difference (7 and others), γ_{10}	0.18	0.19	0.17	0.18	0.20	0.22
Grade difference (8 and others), γ_{20}	-0.21	-0.16	-0.18	-0.18	-0.17	-0.12
Gender difference (male), γ_{30}	-0.34[b]	-0.34[b]	-0.34[b]	-0.33[b]	-0.34[b]	-0.34[b]
Hispanic, γ_{40}	0.05	0.04	0.04	0.05	0.05	0.05
NCE score, γ_{50}	0.02[a]	0.02[a]	0.02[a]	0.02[a]	0.02[a]	0.02[a]
For difference b/w ELL and non ELL, β_{6j}						
Mean intercept, γ_{60}	-0.95	-0.40	-1.48	-0.60	-1.70	-0.07
Los Niños,, γ_{61}	0.06	0.18	0.24	-0.01	0.07	-0.03
CASI, γ_{62}	-0.38	-0.27	-0.37	-0.45	-0.70	-0.43
OTL effect, γ_{63}	-0.24	-0.51	-0.30	-0.18	-0.36	-0.01
FUNCTIONAL GRAMMAR, γ_{64}	-0.01	0.01	-0.02	-0.02	-0.06	-0.00
AVERAGE ELL, γ_{65}	-0.45	-0.70	-0.76	-0.51	-0.5757	-0.59
Threshold(2), δ_2	2.90[b]	2.89[a]	2.89[a]	2.89[a]	2.90[a]	2.89[a]

Table 33 (continued)

HLM Results for Dimension 3

	Graduate	No course	Sengage	Ste	LAPAEL
For common intercept, β_{0j}					
Mean intercept, γ_{00}	-1.71[a]	-1.76[a]	-1.59[a]	-1.58[b]	-2.00[a]
Los Niños,, γ_{01}	0.39	0.42	0.27	0.33	0.51
CASI, γ_{02}	0.88	0.92	0.78	0.78	1.01
OTL effect, γ_{03}	0.126	0.02	0.18	0.15	-0.16
FUNCTIONAL GRAMMAR, γ_{04}	0.303[b]	0.310[b]	0.230[b]	0.28	0.31[b]
AVERAGE ELL, γ_{05}	0.130	0.196	0.14	0.11	0.05
Grade difference (7 and others), γ_{10}	0.043	0.184	0.21	0.21	0.06
Grade difference (8 and others), γ_{20}	-0.24	-0.05	-0.19	-0.25	-0.29
Gender difference (male), γ_{30}	-0.34[b]	-0.34[b]	-0.34[b]	-0.34[b]	-0.34[b]
Hispanic, γ_{40}	0.05	0.06	0.04	0.05	0.04
NCE score, γ_{50}	0.02[a]	0.02[a]	0.02[a]	0.02[a]	0.02[a]
For difference b/w ELL and non ELL, β_{6j}					
Mean intercept, γ_{60}	-0.10	-0.667	0.48	0.42	-0.01
Los Niños,, γ_{61}	-0.08	-0.03	-0.25	-0.15	-0.10
CASI, γ_{62}	-0.38	-0.75	-0.44	-0.49	-0.54
OTL effect, γ_{63}	-0.20	-0.05	0.29	0.24	0.04
FUNCTIONAL GRAMMAR, γ_{64}	0.02	-0.07	-0.06	-0.08	0.03
AVERAGE ELL, γ_{65}	-0.55	-0.90	-0.45	-0.50	-0.67
Threshold(2), δ_2	2.89[a]	2.89[a]	2.89[a]	2.89[a]	2.90[a]

Note: [a] Significant at 0.01 level. [b] Significant at 0.05 level.

Summary of Results

The main purpose of the HLM analyses was to address our second research question: what is the impact of academic language and other OTL indicators on ELLs' and non-ELLs' performance on LAPA? The results of our HLM analyses suggest that there are several factors contributing to students' performance across all four LAPA scores. We found that consistently across all four LAPA scores, students in classes with teachers who had high functional grammar implementation had higher scores on the LAPA than did students in the classrooms with low implementation of functional grammar concepts, after controlling for initial school differences and also the proportion of ELLs in the classroom. The level of functional grammar implementation was consistently the most important OTL variable for predicting student performance on all the dimensions. One additional OTL variable that had a positive impact on student outcomes was the establishment of clear learning expectations even after taking the functional grammar effect into account.

Despite some similarities in predictors across all four scores, we did find some interesting differences.

- We found that there were differences across the three schools in student performance for the holistic score and for Dimension 2 but not for Dimensions 1 and 3.

- The impact of the proportion of ELLs in the classrooms differed depending on the outcome. The proportion of ELLs in the classrooms was negatively associated with performance on Dimension 1 and Dimension 2 but not on the LAPA as a whole or Dimension 3.

At the student level, our analysis suggests that scores on the CAT-6 and gender are two additional important factors contributing to student performance. The main findings from the student level results are highlighted below:

- Higher performance on the CAT-6 was associated with higher performance on the LAPA - holistic, Dimension 1, Dimension 2, and Dimension 3.

- Female students outperformed male students on three of the four outcomes, with the exception being Dimension 1.

- Although the proportion of ELLs in the classroom was associated with lower performance on the LAPA, there were no systematic differences in scores between ELLs and non-ELLs in our study.

- On average, Hispanic students scored lower than other students on the holistic LAPA outcome.

CONCLUSIONS AND DISCUSSION

In order to understand student output, specifically ELL (under) achievement, the primary focus of this study was to investigate the variability of OTL in classrooms with particular attention to the opportunities to acquire academic language and consequently the effect of this inequity on student performance. In this study, we operationalized academic language based on a systemic functional linguistics model (functional grammar) of language use in school-based activities. The primary research questions thus included:

1. To what extent and in what ways are students being exposed to key OTL variables in classrooms?
2. What is the impact of academic language and other OTL indicators on ELLs' and non-ELLs' performance on LAPA?

A summary of key findings that address these research questions, which integrate quantitative and qualitative data, are presented and followed by a discussion of key points as well as recommendations for improving ELL-sensitive OTL instruments, teacher training, and future research in this area.

Summary of Key Findings

Q1: To what extent and in what ways are students being exposed to key OTL variables in classrooms?

To address this question, we examined the instructional practice data from three sources: (a) teacher OTL survey, (b) classroom observations, and (c) teacher interviews. While the OTL survey primarily measured the quantity of specific instructional practices aligned with OTL variables, the observation and interview data provided more information on the quality of those practices. By utilizing data from three sources, we were able to triangulate our findings and also examine the unique contributions of each data source in measuring the various OTL variables outlined in our new ELL-sensitive OTL framework. The key findings are highlighted under each of the OTL variables.

Content exposure: Academic language. Based on our survey, interview, and observation data, we found that teachers in general did not provide adequate

exposure to functional grammar concepts to students. Although we did not find systematic differences between trained and comparison teachers in the level of explicit instruction on functional grammar concepts in the survey responses, we found qualitative differences in the level of functional grammar implementation between these two groups of teachers when we examined our interview and observation data. Comparison teachers tended to focus simply on content and ideas and on a broad and superficial level of writing instruction (e.g., an overall essay structure), whereas most trained teachers described detailed writing lessons in their interviews that included various prewriting activities that helped students develop ideas as well as instruction in academic language that met grade-level expectations during the first draft and revision phases.

Content exposure: ELA content coverage. On average, both trained and comparison teachers reported that they spent about 3 to 4 weeks on various activities related to literary analysis. However, the types of instruction provided to students differed for the trained and comparison teachers. In terms of writing instruction, comparison teachers focused instruction on prewriting activities and some writing conventions such as global essay structure and mechanics, whereas trained teachers indicated the use of a greater degree of instructional support in writing, including not only organization of ideas but also expression of ideas in a coherent and authoritative manner.

Access and development. This variable included ELL process strategies, second language acquisition, and delivery format**.** We found that teachers varied significantly in the amount of the various instructional strategies utilized specifically targeting ELLs. In general, the level of access and development strategies provided to students ranged from once per week to two or more times a day. Based on the interview data, we found that the majority of teachers were familiar with ELL-specific processes and most provided at least one method consistently. However, most teachers provided mainly verbal scaffolding and direct instruction. Although teachers mentioned the use of procedural scaffolding, observations revealed that teachers tended to utilize whole-group guided instruction. Thus, the gradual move toward independent work was not observed.

Misconceptions on how to provide verbal scaffolding during direct instruction to students were a common feature among both trained and comparison teachers. Frequently their conception of verbal scaffolding within this context was to provide students with extensive explanations using simplified language. Teachers

also frequently mentioned taking the time to define new terms. They rarely mentioned modifying their comprehensible input by using strategies such as talking to the text, reciprocal teaching, total physical response, or instructional conversation. Many teachers did not seem to be aware of the need to both reduce ELL students' linguistic burdens while also creating the conditions where ELLs could take more active roles in their learning. While some teachers reported engaging students in discussions, this was rarely seen during the classroom observations. Teachers frequently expressed the problem of not being able to move ELLs to greater levels of verbal expression, hence higher levels of academic language proficiency. In response to this challenge, many teachers misconstrued verbal scaffolding to mean taking on the heavier burden of verbal classroom expression themselves, thereby not providing students the opportunity to speak in the target language. Some teachers appeared to forego classroom discussions altogether.

Further, teacher comments revealed a belief that verbal scaffolding in whole-group instruction coupled with the use of some specialized techniques in the presentation of the content such as graphic displays provided sufficient access to the curriculum. Therefore, teachers tended not to provide small-group activities that fostered negotiation of meaning, a process necessary for language learning.

Feedback and assessment: LAPA preparation. According to our survey results, the amount of feedback teachers provided to the students varied significantly ranging from about once a month to once or twice a week. Based on the interview and observation data, we found that the majority of trained teachers were providing students with meaningful and specific feedback and conducting assessment of comprehension to a high degree.

Teacher experience and expertise. The average number of years teaching was about 10 years for the teachers participating in this study. In addition, the average number of years teaching English language arts was about 6 years. However, about 50% of the teachers had less than 4 years of teaching experience in English language arts.

Q2: What is the impact of academic language and other OTL indicators on ELLs' and non-ELLs' performance on LAPA?

Content exposure: Academic language. We found that, consistently across all four LAPA scores, the students in classes with teachers who had high functional grammar implementation had higher performance on LAPA than the students in the

classrooms with low implementation of functional grammar concepts. Further, we found that the opportunity to learn functional grammar equally benefited both ELLs and non-ELLs. The level of functional grammar implementation was consistently the most important OTL variable for predicting student performance on all four scores, including the holistic and three functional grammar analytic dimensions.

Content exposure: ELA content coverage. Contrary to our previous findings, in this study, the relationship between the levels of content coverage in literary analysis and student outcome was not statistically significant. For the most part, reading opportunities and practice were achieved using the adapted materials of the school with few opportunities for students to select their own reading materials. One possible explanation for this lack of association can be attributed to the fact that teachers without knowledge of academic language structures tended not to provide instruction on expository writing and focused instruction on pre-writing and first draft of the text. Teachers with knowledge of academic language structures used this knowledge to develop focused lessons throughout the writing phases, particularly the revision phase of writing. Consequently, the effect of ELA content coverage may have been confounded by the level of explicit academic language instruction.

Access and development: ELL process strategies and second language acquisition. The HLM analysis did not reveal a significant relationship between ELL process strategies and student achievement. However, the lack of significance may be due to several factors, including, (a) the language used in the survey items, (b) the lack of variability among teachers, and (c) difficulty differentiating the unique effect.

First of all, we believe that the items on the survey did not provide sufficient specificity for teachers to evaluate their levels of ELL process and second language acquisition strategies utilized in their classrooms, which may have led to misinterpretations of some survey items. For example, although separate items targeted small group and collaborative projects, teachers were not specifically asked to report on the degree to which they provide procedural scaffolding, that is, the gradual move toward independent work.

Secondly, based on the interview data, we found that the majority of teachers were familiar with ELL-specific processes; however, we found that most teachers provided students with only verbal scaffolding and direct instruction within a whole-group setting, instead of processes aimed at engaging students in extended discourse. Although teachers mentioned the use of procedural scaffolding, observations revealed that teachers tended to move from whole-group guided

instruction to independent work, particularly in writing instruction. Thus, the gradual move toward independent work was not observed. Consequently, opportunities for negotiation of meaning were greatly reduced as well as group level intensive support that is important for language development. From teacher comments, this abrupt transition from highly supported instruction to insufficiently supported practice on a daily level reflected an inability on the teachers' part to slowly decrease support for students over the course of the year. Further, observations and teacher comments suggest that student opportunity for participation in discourse was limited by the fact that direct instruction was the preferred delivery method for most teachers across the content topics and particularly in writing instruction. Teachers frequently overused this method at the expense of providing students with meaningful activities that provided opportunities for extended discourse and negotiation of meaning. Thus, this practice may also explain the reason for the lack of association found between access and development strategies and student performance.

Lastly, the effect of access and development strategies may have been confounded by the effect of functional grammar implementation. Given that the teacher training program targeted not only the content (e.g., functional grammar concepts) but also provided guidance on instructional strategies appropriate for delivery of the content, it may be difficult to separate out the unique effect of the access and development strategies on the student outcome.

Feedback and assessment: LAPA preparation. HLM analysis did not reveal a significant relationship between LAPA preparation and student performance. Again, the lack of significance may be attributable to the focus on the superficial aspects of writing by most teachers, and the fact that many teachers followed similar instructional patterns during the LAPA preparation period as they did during the rest of the year.

Teacher experience and expertise. Although based on the HLM analyses, teacher expertise was not a significant factor in student performance on LAPA, qualitative data revealed key differences in teacher quality based on years of teaching experience. Level of experience was found to differentiate teachers in important ways. First, less experienced teachers harbored misconceptions about what constituted effective practices for ELLs. These teachers often described the use of practices that are less effective in supporting ELLs' linguistic needs, such as overuse of direct instruction or lack of thinking skills instruction. Second, teachers

with greater knowledge of academic language structures were more adept in identifying specific instructional needs and developing instructional plans aimed at addressing those needs. These teachers in particular directed a greater degree of attention to the revision process and did so effectively. Additionally, latent class analyses (LCA) also suggest that there seems to be a positive association between education level and the way teachers interpret and answer the OTL questionnaire.

In summary, while certain teaching practices corresponding to specific OTL were found to have positive impact on student performance, specifically instruction in academic language, LAPA scores overall were fairly low compared to the proficiency criteria of the LAPA holistic rubric. This corresponds directly with the general low level and poor quality of OTL exposure for the majority of the students in this study. The results from this study underscore the need for systematic examination of OTL variables to monitor the quality of instruction.

Discussion and Recommendations

Academic Language in English Language Arts

One of the most important findings from this study points to the need for explicit instruction on academic language. The findings further suggest that without continual and linguistically supported access to the curriculum, ELLs may not benefit from assessment driven reform efforts; over time, unsupported access may lead to increases in achievement gaps. The finding that teachers with high functional grammar instruction included such instruction through the revision process and were more likely to engage students in meaningful discourse activities suggests that explicit instruction in academic language is most effective when it is combined with appropriate procedural and verbal scaffolding. More importantly, since the focus of functional grammar instruction was to highlight the linguistic structures that underlie academic language, ongoing instruction in this area may have facilitated the development of language schemas that students drew on when completing the performance assessment.

By focusing on these language schemas, this study also contributes to research addressing ELL instruction by revealing the importance of instructional practices designed to build on students' existing knowledge structures in a manner that does not rely on techniques that limit ELLs' opportunities to receive and produce grade-appropriate academic texts, such as text adaptation and use of

graphic displays. While scaffolding strategies that reduce the linguistic demand of content are necessary for ELLs with very low English proficiency, teachers need tools for removing these scaffolds gradually. If these scaffolds are not removed, ELLs may not develop the capacity to cope with rigorous content and in turn may never fully benefit from outcome-based reform efforts even if such reforms directly address their instructional needs.

Academic Language in Other Subject Matter Learning

The findings reported here also suggest that the systemic functional linguistics approach to academic language instruction, combined with appropriate access and development strategies, offers a theoretically based framework to provide ELLs with significant access to rigorous curriculum not only in language arts but also in other content areas (e.g., Schleppegrell, 2002). This approach to academic language instruction can be used across the curriculum because of its ability to: (a) provide resources for students to gain greater access to content area texts; (b) broaden students' linguistic choices when articulating what they know about a given content topic in oral or written modes; and (c) provide teachers with tools for examining student-produced texts (oral or written) to determine students' depth of understanding in ways that can inform subsequent instruction.

This approach can also foster extended discourse opportunities as well as provide opportunities for active negotiation of meaning between teachers and groups of students (Gibbons, 2002). For example, in a science content classroom, the explicit instruction of functional grammar concepts could assist students in comprehending and producing the discipline-based texts which are often characterized by their high level of abstraction, objectivity, and information-orientation (Lotfipour-Saedi & Rezai-Tajani, 1996; Kinneavy, 1971). As Unsworth (1999) suggests, science is a technical discourse that involves translating and constructing specialized knowledge through distilling meaning from discipline-based texts. Based on the findings reported here, explicit instruction in the linguistic elements that realize this genre can be used as a tool for teachers and students for comprehension and production of scientific texts by gaining control in deconstructing and manipulating grammar in new ways.

The incorporation of functional grammar across the content areas can be achieved by highlighting the linguistic elements that correspond to each of the contextual variables that map onto key metalinguistic functions: field (*what's going*

on), tenor (*point of view*), and mode (*text structure*). Two key elements common across content areas are grammatical metaphor and nominalization (Christie, 2002; Schleppegrell, 2004b). Both of these are produced primarily through expanded noun phrases. Table 34 (adapted from Schleppegrell, 2004b) outlines common linguistic features across academic registers.

Table 34

Linguistic Features of Academic Language

Task/activity expectations	Grammatical features
Display knowledge (Field)	• Complex nominal syntax with specialized, technical and abstract vocabulary
	• Verbs that enable clause-internal reasoning with nouns, verbs, and prepositions, instead of conjunctions
Be authoritative (Tenor)	• Declarative mood and modal verbs to accomplish "reasoned" judgments
	• Implicit evaluation
Structure text in expected ways (Mode)	• Clause-combining strategies of condensation and embedding
	• Theme position marks organizational structure
	• Dense clauses through grammatical metaphor/nominalization

It is precisely these areas that our training was designed to highlight for teachers. Since this study demonstrates that students could be explicitly taught how to recognize these grammatical features, then it should be possible to train students to identify these features in other content texts to increase their understanding of how the text functions to order ideas and build knowledge (i.e., increase reading comprehension). This process in turn could assist students in gaining control of academic lexical resources in their own writing to create school-based meanings.

Recommendations for Teacher Training in Academic Language

The positive impact of functional grammar implementation on student outcomes also suggests that in order for ELLs to fully benefit from assessment-driven reform, teachers need the capacity to make the linguistic expectations clear to

students by focusing on the linguistic elements that are characteristic of academic registers. The findings from this study also point to evidence that careful consideration of the content and the planning of training aimed at providing such capacity are necessary. We found that if we only considered whether a teacher participated in the training or not, the impact of the training was insignificant after controlling for school factors. However, when we considered level of implementation, the impact was significant.

Although we provided two follow-up training sessions after the initial weeklong institute, it became clear that additional support was needed which was beyond the scope and resources of this project. Specifically, many teachers needed more support in the implementation of the more complex concepts of functional grammar, namely strategies for developing stronger clause-to-clause linkages, which is critical for creating lexical density. A related area in which teachers needed more support was in strategies for instructing students in expanding noun phrases. Even though teachers were able to identify this linguistic feature after training, teachers needed more coaching on both the different ways expanded noun phrases can be achieved, namely using embedded clauses, and how to integrate this into writing instruction. Our experience as well as previous literature suggests that the incorporation of a coaching model to the training may improve the degree of fidelity of implementation.

Finally, the lack of implementation by some teachers can also be attributed to their misconceptions about the capabilities of their students. Teachers who held strong preconceived notions of particular scaffolding techniques and direct instruction were teachers with the least observed instructional change. Our qualitative findings suggest that teacher misconceptions about ELL instructional strategies may have reduced their motivation to alter their teaching practices. Thus, research in teacher training should also devote a significant amount of time to addressing potential teacher misconceptions and test whether addressing misconceptions improves the level of implementation.

Triangulation

The observations of classroom practices revealed inconsistencies between the amounts of OTL teachers reported in the survey instrument and what the research team directly observed in their classrooms. This pattern was particularly evident for the scales targeting academic language (ELL content coverage/functional grammar),

ELL-specific process strategies, and feedback to students. The literature on the reliability of teacher self-report on teaching practice has been limited and often inconsistent (Boyle, Lamprianou, & Boyle, 2005). Under specific conditions, previous studies have shown that teacher self-report can be reliable (Herman, Klein, & Abedi, 2000; Koziol & Burns, 1986). In our study, however, we found that there were significant discrepancies between what the teachers reported in the teacher OTL survey and what the researchers actually observed in the classrooms. This finding brings up the issue of reliability and validity of using teacher surveys to gather information about instructional practices. A review of results from California's Mathematics Professional Development Institutes, Hill & Ball (2004) also demonstrates the need for more rigorous measures of teacher knowledge and practice outcomes. According to Hill & Ball, professional development studies often only include third- or fourth-level indicators of perceived learning or change in practice (i.e., self-reports), which are distant from what teachers actually do in the classroom. They argue that terms used in such measures are also often highly open to interpretation, susceptible to social desirability of responses, and do not capture academic content knowledge.

In the current study, teachers' inflated reports of providing opportunity to learn these variables may have been influenced by at least three factors. First, teachers' general awareness that their practices should be consistent with ELLs' linguistic needs may have compelled them to report higher levels of coverage than they actually implemented, particularly for those who had higher proportions of ELLs in their classrooms. Second, as mentioned previously, teachers may have not fully understood the survey items. Based on teacher responses to interview questions regarding these variables, it was evident that there existed a lack of understanding of terminology associated with academic language among the teachers. Further evidence of this lack of knowledge was the finding that teachers in the trained group reported high levels of knowledge in the linguistic structures of academic knowledge prior to receiving instruction in this area, which was inconsistent with their performance on the pre-test. Teachers' misunderstanding of academic language is not surprising since pre-service training does not provide teachers with exposure to the linguistic structures that differentiate academic language from informal language or instructional strategies to target development of academic language in this way. Also, based on the LCA, there seems to be an association between participation in training and the way teachers interpreted and responded to the OTL questionnaire. This may suggest that teachers who attended

training were more knowledgeable about the concepts targeted in the survey and thus were better able to self-evaluate their practices.

Recommendations for Improving ELL-Sensitive OTL Instruments

Finally, based on the results of this study, we offer the following recommendations for improving OTL instruments that are sensitive to the instructional needs of ELLs:

- *Include more specific examples of academic language coverage.* Since the majority of teachers are not aware of the linguistic structures that comprise academic language, examples of field, tenor, and mode should be provided. This can be achieved by presenting text excerpts that demonstrate key linguistic elements that realize each metalinguistic function.

- *Items targeting ELL process strategies should reflect the need for balance among whole group, group work and independent work and the need to include activities within these delivery formats for negotiation of meaning.* This can be achieved by including descriptions of classroom activities (vignettes), and then having teachers report on the extent to which their instructional activities correspond with the vignettes.

- *Items targeting scaffolding and adaptation of content should be designed around specific ELD levels.* Qualitative findings suggests that while teachers have a general understanding of scaffolding, they hold misconceptions about appropriate scaffolding for ELLs with intermediate and higher levels of English proficiency, resulting in a poor match between the type of scaffolding teachers provided and the linguistic needs of the student. Therefore, items should provide examples of specific scaffolding techniques for differing levels of English proficiency.

- *Items incorporating types of ELL support strategies with content coverage.* Given the importance of linkage between the explicit instruction in academic language and appropriate ELL support strategies, items assessing the level of alignment between the types and level of support strategies used to deliver content (specifically academic language) and the level of content coverage should be a critical component of OTL indicator model.

- *Include items that target metacognitive strategies to develop reading comprehension.* Qualitative results indicate that teachers generally did not engage students in activities that promoted metacognitive strategies for improving reading comprehension. Since research has shown this strategy is effective for ELLs, items should address these strategies.

- *Include more items that target comprehensible input.* Our instrument was limited to a few general items targeting comprehensible input, which may have contributed to insignificant results. Further, these items should target a variety of content topics across the activities in a given lesson or unit.

- *Include items that target extent of instructional time spent addressing management issues in the classroom.* Qualitative results indicated that a major hurdle to providing students with small-group instruction was teachers' lack of classroom management. If management issues are mediating factors that impact student opportunities to experience appropriate levels of content and process activities, then OTL instruments should directly address this factor.

- *Collect information from teacher logs and lesson plans.* Given that classroom observation is not cost-effective and not feasible for large-scale study, collecting additional information about OTL through teacher logs, teacher assignments, and lesson plans may help researchers monitor their instructional practices more systematically and also provide another source to assess the consistency of the survey responses with other data.

- *Collect information from discourse analysis.* As the frequency and the nature of opportunities students receive for communicating in the target language are critical for academic language development, discourse analysis could provide an effective window into examining this interaction directly.

References

Abedi, J., Leon, S., & Mirocha, J. (2000). Examining ELL and non-ELL student performance differences and their relationship to background factors: Continued analyses of extant data. In J. Abedi, A. L. Bailey, & F. A. Butler (Eds.), *The validity of administering large-scale content assessments to English language learners: An investigation from three perspectives*. (Final Deliverable to OERI/OBEMLA, Contract No. R305B960002; pp. 3-49). Los Angeles: University of California, National Center for Research on Evaluation, Standards, and Student Testing (CRESST).

Aguirre-Muñoz, Z., & Boscardin, C. K. (forthcoming). Do existing opportunity to learn measures capture key factors related to the achievement of English learners?: Limitations of narrow definitions of content exposure and instructional practices. *Journal of Latinos and Education.*

Aguirre-Muñoz, Z., Kim-Boscardin, C., & Herman, J. (2002). *Content-based evidence of validity for the Chicago Academic Standards Examinations: Findings from an expert panel review*. CRESST Deliverable. Los Angeles: University of California, National Center for Research on Evaluation, Standards, and Student Testing (CRESST).

Allen, J. (1995). *It's never too late: Leading adolescents to lifelong literacy*. Portsmouth, NH: Heinemann.

Artiles, A. J., & Ortiz, A. (Eds.). (2002). *English language learners with special education needs.* Mc Henry, IL: Center for Applied Linguistics and Delta Systems Co., Inc.

August, D., & Hakuta, K. (1997). *Improving schooling for language-minority children: A research agenda.* National Research Council Committee on Developing a Research Agenda on the Education of Limited-English-Proficient and Bilingual Students. Washington, DC: National Academy Press.

Baker, E. L., Niemi, D., Herl, H., Aguirre-Muñoz, Z., Staley, L., & Linn, R. L. (1995). *Report on the Content Area Performance Assessment (CAPA): A collaboration among the Hawaii Department of Education, the Center for Research on Evaluation, Standards and Student Testing (CRESST), and the Teachers and Children of Hawaii.* (CRESST Deliverable). Los Angeles: University of California, CRESST.

Bartman, K. D. (2002). Public education in the 21st Century: How do we ensure that no child is left behind? *Temple Political & Civil Rights Law Review, 12*(1), 95-119.

Boscardin, C. K., Aguirre-Muñoz, Z., Chinen, M., Leon, S., & Shin, H. S. (2004). *Consequences and validity of performance assessment for English language learners: Assessing OTL in grade 6 language arts* (CRESST Tech. Rep. No. 635). Los

Angeles: University of California, National Center for Research on Evaluation, Standards, Student Testing.

Boyle, B., Lamprianou, I., & Boyle T. (2005). A longitudinal study of teacher change: What makes professional development effective?, Report of the second year of the study. *Journal of School Effectiveness and School Improvement* (in press), Available from http://www.education.man.ac.uk/cfas/documents/2ndyearreport.doc.

Butler, F. A., Lord, C., Stevens, R., Borrego, M., & Bailey, A. L. (2004). *An approach to operationalizing academic language for language test development purposes: Evidence from fifth-grade science and math* (CSE Tech. Rep. No. 626). Los Angeles: University of California, National Center for Research on Evaluation, Standards, and Student Testing (CRESST).

Butler, F. A., & Stevens, R. (1997). *Accommodation strategies for English language learners on large-scale assessments: Student characteristics and other considerations.* Los Angeles: University of California, National Center for Research on Evaluation, Standards, and Student Testing.

California English/Language Arts Committee (1999). English-Language Arts Content Standards for California Public Schools (Kindergarten Through Grade Twelve). Sacramento: California Department of Education.

Christie, F. (1986). Writing in schools: Generic structures as ways of meaning. In B. Couture (Ed.), *Functional approaches to writing: Research perspectives* (pp. 221-239). London: Frances Pinter.

Christie, F. (1998). Science and apprenticeship: The pedagogic discourse. In J. R. Martin & R. Veel (Eds.), *Reading Science: Critical and functional perspectives on discourses of science* (pp.152-177).

Christie, F. (1999, Winter). Genre theory and ESL teaching: A systemic functional perspective. *TESOL Quarterly*, *33*(4), 759-764.

Christie, F. (2002a). The development of abstraction in adolescence in subject English. In. M. Schleppegrell & M. C. Colobi (Eds.), *Developing advanced literacy in first and second language: Meaning with power* (pp. 45-66). London: Routledge.

Christie, F. (2002b).*Classroom discourse analysis: A functional perspective.* London: Continuum.

Cresswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches (2nd ed.).* Thousand Oaks, CA: Sage.

Cummins, J. (1979). Linguistic interdependence and the educational development of bilingual children. *Review of Educational Research, 49*(2), 222-251.

Cummins, J. (1981). The role of primary language development in promoting educational success for language minority students. In California State Department of Education (Ed.), *Schooling and language minority students: A theoretical framework*. (pp. 3-49). Los Angeles: National Dissemination and Assessment Center.

Cummins, J. (1984). *Bilingualism and special education: Issues in assessment and pedagogy*. Clevedon, England: Multilingual Matters.

Cummins, J. (1996). *Negotiating identities: Education for empowerment in a diverse society.* Los Angeles: California Association for Bilingual Education.

Cummins, J. (2000). *Language, power and pedagogy: Bilingual children in the crossfire.* Clevedon, England: Multilingual Matters.

Darling-Hammond, L. (1990, December). Achieving our goals: Superficial or structural reforms? *PHI DELTA KAPPAN, 72,* 286-295. EJ 418 155.

Darling-Hammond, L. (Ed.). (1994). *Professional development schools: Schools for developing a profession.* New York: Teachers College Press.

Denzin, N. K. (1978). *The research act: A theoretical introduction to sociological methods, (2nd ed.).* New York: McGraw-Hill.

Echevarria, J., & Graves, A. (1998). *Sheltered content instruction: Teaching students with diverse abilities*. Boston: Allyn & Bacon.

Echevarria, J., Vogt, M. E., & Short, D. (2000). *Making content comprehensible to English language learners: The SIOP model.* Boston: Allyn & Bacon.

Edelsky, C. (1990). *With literacy and justice for all: Rethinking the social in language and education.* London: The Falmer Press.

Genesee, F., Lindholm-Leary, K., Saunders, W., & Christian, D. (2004, April). *Educating English language learners.* Paper presented at the annual meeting of American Educational Research Association.

Gibbons, P. (2002). *Scaffolding language, scaffolding learning: Teaching second language learners in the mainstream classroom.* Portsmouth, NH: Heinemann.

Goldenberg, C. (1993). Instructional conversations: Promoting comprehension through discussion. *The Reading Teacher, 46*(4), 316-326.

Graves, D. H. (1983). *Writing: Teachers and children at work.* Portsmouth, NH: Heinemann.

Greenleaf, C., & Freedman, S. W. (1993). Linking classroom discourse and classroom content: Following the trail of intellectual work in a writing lesson. *Discourse Processes, 16*, 465-505.

Griffin, N.C., Aguirre-Muñoz, Z., Goldschmidt, P., Amabisca, A., Miyoshi, J., Swigert, S. & Trusela, L. (2003). Evaluation of the California Professional Development Institutes in English Language Arts: Primary Grades Year Two Report. CRESST Deliverable.

Gross, W. (1993). Early mathematics performance and achievement: Results of a study within a large suburban school system. *Journal of Negro Education*, *62*(3), 269-287).

Guiton, G., & Oakes, J. (1995). Opportunity to learn and conceptions of educational equality. *Educational Evaluation and Policy Analysis, 17*(3), 323-336.

Gumperz, J., Kaltman, H., & O'Connor, M. C. (1984). Cohesion in spoken and written discourse: Ethnic style and the transition to literacy. In D. Tannen (Ed.), *Advances in discourse processes, Vol. 12* (pp. 3-19). Norwood, NJ: Ablex.

Halliday, M. A. K. (1975*). Learning how to mean: Explorations in the development of language.* London: Edward Arnold.

Halliday, M. A. K. (1987). *New Developments in systemic linguistics*, London, New York: Pinter.

Halliday, M. A. K. (1989). *Spoken and Written Language* (*2nd ed.).* Oxford: Oxford University Press.

Halliday, M. A. K. (1994). *An introduction to functional grammar. (2nd ed.).* London: Edward Arnold.

Herman, J. L., Klein, D. C. D., & Abedi, J. (2000, winter). Assessing students' opportunity to learn: Teacher and student perspectives. *Educational Measurement: Issues and Practice*, *19*(4), 16-24

Hill, H. C., & Ball, D. L. (2004). Learning mathematics for teaching: Results from California's Mathematics Professional Development Institutes*. Journal of Research in Mathematics Education, 35,* 330-351.

Howell, K. W., Fox, S. S., & Morehead, M. K. (1993). *Curriculum-based evaluation (2nd ed.).* Belmont, CA: Brooks/Cole.

Jackson, K. W. (1982, March). *Achievement differences in mathematics: A search for causal explanations.* Paper presented at the annual meeting of the National Council of Black Studies, Chicago.

Kinneavy, J. L. (1971). *A theory of discourse: The aims of discourse.* Englewood Cliffs, NJ: Prentice-Hall.

Koziol, S. M., & Burns, P. (1986). Teachers' accuracy in self-reporting about instructional practices using a focused self-report inventory. *Journal of Educational Research, 79*(4), 205-209.

Kozol, J. (2000). Forward. In J. Cohen & J. Rogers (Eds.), *Will standards save public education?* Boston: Beacon Press.

Krashen, S. (1989). *Language acquisition and language education.* New York: Prentice Hall.

Lee, J., & Wong, K. K., (2004). The impact of accountability on racial and socioeconomic equity: considering both school resources and achievement outcomes. *American Education Research Journal, 41*(4), 797-832.

Lee, V. E., & Smith, J. B. (1999). Social support and achievement for young adolescents in Chicago: The role of school academic press. *American Educational Research Journal, 36*, 907-945.

Lo, Mendel, & Rubin (2001). Testing the number of components in a normal mixture. *Biometrika, 88*, 767-778.

Lotfipour-Saedi, K., & Rezai-Tajani, F. (1996). Exploration in thematization strategies and their discoursal values in English. *Text, 16*(2), 225-249.

MacSwan, J. (2000). The architecture of the bilingual language faculty: Evidence from intrasentential code switching. *Bilingualism,* 3, 37-54.

Mauranen, A. (1996). Discourse competence: Evidence from thematic development in native and non-native texts. In E. Vantola & A. Mauranen (Eds.), *Academic Writing: Intercultural and Textual Issues* (pp. 195-230). Amsterdam: John Benjamins.

McGroarty, M. (1993). Second language instruction in the workplace. *Annual Review of Applied Linguistics, 13*, 86-108.

McCurdy, P. L., (1980). Talking to foreigners: The role of rapport. Ph.D. dissertation, University of California, Berkeley.

Mehan, H. (1978). Structuring school structure. *Harvard Educational Review, 48* (1), 32-64.

Mehan, H. (1979). *Learning lessons: Social organization in the classroom.* Cambridge, Massachusetts: Harvard University Press.

Mercer, C., Jordan, L., & Miller, S. (1994). Implications of constructivism for teaching math to students with moderate to mild disabilities. *The Journal of Special Education, 28*, 290-306.

Mercer, C.D., Jordan, L., & Miller, S.P. (1996). Constructivistic math instruction for diverse learners. *Learning Disabilities Research & Practice, 11,* 147-156

Mercer, N. (2004). *Words and minds: How we use language to think together*. New York, Routledge.

Michaels, S., & Cazden, C. B. (1986). Teacher/child collaboration as oral preparation for literacy. In B. B. Schieffelin & P. Gilmore (Eds.), *The acquisition of literacy: Ethnographic perspectives* (pp. 132-154). Norwood, NJ: Ablex Publishing.

Newmann, F. M., King, M. B., & Rigdon, M. (1997). Accountability and school performance: Implications from restructuring schools. *Harvard Educational Review, 67*(1), 41–74.

Nunnally, J. C. (1978). *Psychometric theory (2nd ed.).* New York: McGraw-Hill.

Oakes, J. (1985). *Keeping track: How schools structure inequality*. New Haven, CT: Yale University Press.

O'Day, J. A., & Smith, M. S. (1993). Systemic reform and educational opportunity. In S. H. Fuhrman (Ed.), *Designing coherent education policy: Improving the system*. San Francisco: Jossey Bass. (ED 359 626)

Olson, D. (1977). From utterance to text: The bias of language in speech and writing. *Harvard Educational Review*, *47*, 257-281.

Olson, D. (1980). Some social aspects of meaning in oral and written language. In D. R. Olson (Ed.), *The social foundations of language and thought: Essays in honor of Jerome S. Bruner* (pp.90-108). New York: Norton.

O'Malley, M., & Valdez Pierce, L. (1996). *Authentic assessment for English language learners.* New York: Addison Wesley.

Painter, C. (2000). Researching first language development in children. In L. Unsworth (Ed.), *Researching language in schools and communities: Functional linguistics perspectives* (pp. 65-86). London: Cassell.

Peregoy, S. F., & Boyle, O. F. (2005). *Reading, writing, and learning in ESL: A resource book for K-12 teachers (4th ed.).* New York: Allyn & Bacon.

Pica, T. (1988). Interlanguage adjustments as an outcome of NS-NNS negotiation interaction. *Language Learning, 38,* 45-73.

Pica, T., Lincoln-Porter, F., Paninos, D., & Linnel, J. (1996). Language learners' interaction: How does it address the input, output, and feedback needs of L2 learners? *TESOL Quarterly*, *30,* 59-84.

Porter, P. A. (1986). How learners talk to each other: Input and interaction in task-centered discussions. In R. R. Day (Ed.), *Talking to learn: Conversation in second language acquisition* (pp. 200-222). Rowley, MA: Newbury House.

Porter, A.C. (1991). Creating a System of School Process Indicators. *Educational Evaluation and Policy Analysis, 13,* (1), 13-29

Romaine, S. (1984). *The language of children and adolescents: The acquisition of communicative competence.* Oxford: Blackwell.

Rosenshine, B. (1986). Synthesis of research on explicit teaching. *Educational Leadership*, *43*(7), 60-68.

Ross, J. A., & Robinson, F. G. (1987). The use of rule structures in teaching experimental design to secondary-school students. *Science Education*, *71*, 571-589.

Saunders, W., & Goldenberg, C. (1999). Effects of instructional conversations and literature logs on limited- and fluent-English proficient students' story comprehension and thematic understanding. *Elementary School Journal, 99*(4), 277-301.

Saxe, G. B., & Gearhart, M., & Seltzer, M. (1999). Relations between classroom practices and student learning in the domain of fractions. *Cognition and Instruction, 17*, 1-24.

Schifini, A. (1985). *Sheltered English: Content area instruction for limited English proficiency students.* Los Angeles County Office of Education.

Schleppegrell, M. J. (1998). Grammar as a resource: Writing a description. *Research in the Teaching of English, 32*(3), 182-211.

Schleppegrell, M. J. (2001). Linguistic features of the language of schooling. *Linguistics and Education, 12*(4), 431-459.

Schleppegrell, M. J. (2003). *Grammar for writing: Academic language and the ELD standards.* UCLMRI Final Report.

Schleppegrell, M. J. (2004a). Teaching academic writing to English learners. *University of California Linguistic Minority Research Institute (UC LMRI) newsletter, v. 13*, n. 2 pp. 1-2.

Schleppegrell, M. J. (2004b). *The language of schooling: A functional linguistics perspective.* Mahwah, NJ: Erlbaum.

Schleppegrell, M. J., Achugar, M., & Oteíza, T. (2004). The grammar of history: Enhancing content-based instruction through a functional focus on language. *TESOL Quarterly, 38*(1), 67-93.

Schleppegrell, M. J., & Simich-Dudgeon, C. (1996). What's a good answer? Awareness about behavioral and content features of successful classroom interaction. *Linguistics and Education, 10*(4), 273-286.

Schwartz, R. A. (1978). Some limits and problems of cognitivism. *The Behavioral and Brain Sciences, Vol. l*, No. 2.

Shi, L. (1998). Negotiated interaction in teacher-led versus peer group adult ESL discussions. *TESL Canada Journal*, *18*(1), 54-74.

Simmons, D., Fuchs, D., Fuchs, L., Mathes, P., & Hodge, J. (1995). Teacher-directed reading instruction in the mainstream: A call for instructional reform. *Reading and Writing Quarterly: Overcoming Learning Difficulties, 11,* 19-36.

Sinclair, B. (1993). Are academic texts really decontextualized and fully explicit? A pragmatic perspective on the role of context in written communication. *Text*, *13*(4), 529-558.

Sinclair, J., & Coulthard, M. (1975). *Towards an analysis of discourse: The English used by teachers and pupils.* London: OUP. [-10-]

Snow, C. E. (1983). Literacy and language: Relationships during the preschool years. *Harvard Educational Review.* (Reprint in Minami and Kennedy 1991.) Interest level: academic.

Stevens, R. A., Butler, F. A., & Castellon-Wellington, M. (2000). *Academic language and content assessment: Measuring the progress of English language learners (ELLs)* (CSE Technical Report No. 552). Los Angeles: University of California, National Center for Research on Evaluation, Standards, Student Testing.

Torrance, N., & Olson, D. R. (1984). Oral language competence and the acquisition of literacy. In A. D. Pellegrini & T. E. Yawkey (Eds.), *The development of oral and written language in social contexts* (pp. 167-182). Norwood, NJ: Ablex.

Unsworth, L. (1999). Teaching about explanations: Talking out the grammar of written language. In A. Watson & L. Giorcelli (Eds.), *Accepting the literacy challenge* (pp. 189-204). Sydney, Australia: Scholastic.

Valdes, G., & Figueroa, R. A. (1994). *Bilingualism and testing: A special case of bias.* New Jersey: Alex Publishing.

Valencia, R. R., Valenzuela, A., Sloan, K., & Foley, D., (2004). Let's treat the cause not the symptoms: Equity and accountability in Texas revisited. In L. Skrla & J. J. Scheurich (Eds.), *Educational equity and accountability: Paradigms, policies and politics* (pp. 29-38). New York: Routledge Falmer.

Wang, J. (1998). Opportunity to learn: The impacts and policy implications. *Educational Evaluation and Policy Analysis, 20*(3), 137-156.

Wells, G. (1993). Re-evaluating the IRF Sequence. *Linguistics and Education, 5*, 1-37.

Wong-Fillmore, L., & Snow, C. E. (2000). What teachers need to know about language. ERIC Clearinghouse on Languages and Linguistics Special Report. US Department of Education, Office of Educational Research and Improvement.

Wong, K. K., & Lee, J. (1998). Interstate variation in the achievement gap among racial and social groups: Considering the effects of school resources and classroom practices. In K. K. Wong (Ed.), *Advances in educational policy* (Vol. 4, pp. 119-144). Greenwich, CT: JAI Press.

Woods, D. (1996). *Teacher cognition in language teaching: Beliefs, decision-making, and classroom practice.* Great Britain: Cambridge University Press.

APPENDIX A

Training Effectiveness Description

Training Process

Training institute. The first day of the training institute began with a brief introduction to the goals of the project. Minimal details were provided in terms of the content to maintain authenticity of the pre- and post-institute survey and test responses. Following the introduction, teachers were asked to complete a teacher survey and a pre-test, both described in the Instruments section. Once all teachers completed these instruments, a more detailed overview of the training institute was presented. On the remaining days of the institute, the training session began by engaging in small-group discussions around the assigned readings. After 20 minutes of discussion, each group reported back to the larger group and key issues were discussed further. Following this discussion, a quotation from a teacher was presented to teachers to incite a discussion of issues pertaining to ELLs. These quotes were discussed briefly to address potential teacher misconceptions about these issues, as teacher beliefs have been shown to relate to their reception of training material (Richardson, 1996; Woods, 1996). Further, scholars of language minority education advocate the explicit inclusion of teacher attitudes and beliefs in professional development, because successful implementation of reform activities has been shown to occur when teachers shed misconceptions about ELLs (Milk, Mercado, & Sapiens, 1992; Richardson, Anders, Tidwell, & Lloyd, 1991). Finally, mini lessons developed by the pilot training teachers and further refined by the research staff were embedded throughout the modules to provide teachers with ideas about how to introduce and develop functional grammar concepts with students.

After these discussions, the modules were introduced. On each day of the four-day training, a different module was introduced. Within each module, several whole and small group activities (including role-play), designed to provide teachers with practice in the application of the concepts or strategies learned, were integrated into the presentation of the material. As described above, the first two modules targeted the concepts of the functional linguistic approach, and the third module addressed instructional strategies, including language analysis, writing revision lessons, the instructional conversation, and the readers' and writers' workshop. Module four, presented during the final day of the training was dedicated to the analysis of student writing, the collaborative development of lessons using functional linguistic concepts, and the completion of the post training survey and the post-test.

At the end of the institute, teachers were thanked for their participation and provided with certificates of completion. CRESST researchers compiled the lessons developed during training, refined them for clarity and fidelity to the functional linguistic approach, and then sent the revised lesson packet to teachers. Teachers were also encouraged to implement the lessons that were developed and contact CRESST researchers regarding their successes or concerns.

Follow-up training sessions. During the first follow-up day of training, teachers shared the successes, challenges, and the specific strategies they used with students to incorporate functional grammar in their classrooms. Presenters also provided teachers with added information on how to provide positive strategic feedback to student writing, and on how to develop a more flexible approach for students in their construction of global essay structures.

In the second follow-up day of training, teachers and presenters reviewed the LAPA administrative procedures and the LAPA writing prompt. Presenters and teachers also analyzed the strengths and weakness of the LAPA anchor papers in relation to the scoring rubric, which teachers then used to develop lesson plans for the two-week long LAPA writing period.

To evaluate the overall effectiveness of the institute, pre- and post-institute surveys as well as pre- and post-tests were conducted. Descriptions of these instruments are provided next.

Pre-and post-institute surveys. In order to determine teachers' perceptions of the effectiveness of the training, teachers were asked to complete a teacher survey prior to engaging in the institute material and at the conclusion of the institute. These surveys targeted four general categories: level of experience, preparation, assessment/instructional processes, and teacher attitudes. Teachers responded to the latter three categories on a six-point Likert scale (Appendix J).

The level of experience category was designed for descriptive purposes only and addressed the number of years teaching, credential status, and training in teaching English as a second language or sheltered instruction.

Items in the preparation category included teachers' reports of level of understanding in second language writing development patterns and related information. Also included were items that asked teachers to report on how prepared they felt to provide instruction in reading and writing as well as in analyzing student writing. The first set of questions asked teachers to rate their

understanding of institute content on a five-point Likert scale, while the second set of questions asked teachers to rate how prepared they felt to engage in teaching the content on a six-point Likert scale.

Items in the assessment and instructional processes category included teacher reports of the frequency of assessment and general instructional strategies as well as instructional strategies known to be effective for ELLs, such as the use of visuals and linking new concepts to students' experience.

Finally, the attitude category items, included for exploratory purposes, asked teachers to report on the degree to which they agreed with a number of items designed to address attitudes about the instruction and development of reading and writing, ELLs, and their role in the development of ELL language proficiency.

Whereas the pre-institute survey focused on teachers' current status with respect to each of the four general categories, the post-institute survey addressed only the latter three (preparation, instructional strategies, and attitudes). Further, the post-institute survey asked teachers to reflect on how the training increased their level of preparation, and on how often they believed they would address the instructional strategies delineated in the instructional strategies category in the subsequent school year. Teachers were not asked to indicate how the training impacted their attitudes. They were simply asked to report on the same set of attitude items a second time. Due to the differences between pre-and post-questionnaires, T-tests were not conducted on group means. However, differences in pre- and post-test means indicating teachers' ability to identify strengths and weakness as well as identify a plan for intervention based on functional grammar concepts were computed and discussed below.

Overall satisfaction and feedback. The post-survey also included items where teachers could express the extent to which the training would influence their future instruction, how satisfied they felt with the training, and what they liked most and least about the training.

Pre- and post-tests. In order to determine whether teachers could apply the functional linguistics concepts to student writing, pre-and post-tests were administered to determine the degree of change in the type of feedback teachers provided to students, how they identified strengths and weaknesses and planned for further instruction. For the pre-test, participating teachers reviewed three sample student essays and were asked to respond to the following questions for each essay:

1. What are three strengths of this essay?
2. What are three problems with this student essay?
3. What kind of feedback would you provide this student with regards to the writing?
4. What kind of feedback would you provide this student with regards to the content?
5. What would you do to target instruction for this student?

For the post-test, completed at the conclusion of the training, teachers reviewed three additional sample student essays and responded to the same set of questions. Teachers' responses were first coded in four critical areas—strengths, weaknesses, feedback, and targeted instruction. After this initial coding, responses were further categorized based on the linguistic and literary features present in the writing. The linguistic and literary categories allow for a more descriptive and specific characterization of teacher comments that more effectively illustrate steachers' understanding of the specific features of students' writing.

Training Institute Effectiveness

This section reports general trends gleaned from responses to the pre- and post institute survey and the pre- and post tests. Bear in mind that these findings reflect general trends due to the small sample size.

Pre- and Post-Institute Surveys

Understanding of linguistic elements. Teachers' initial reports of understanding of key linguistic elements of academic language, displayed in Table 1, were very high. As indicated in the pre-institute survey, 90 to 100% of teachers rated themselves as having between "a moderate" to "a very large amount" of understanding of the grammatical elements in Items a-g (with over 50% reporting "a large amount of knowledge"), and approximately 80% of teachers rated themselves as having moderate to high levels of understanding of misconceptions related to English Language Development, literacy instruction for ELLs, and overall ELL achievement. This trend contrasts with teachers' initial inability to identify specific writing needs and specificity of feedback on the pre-test (discussed below). For example, some teachers had difficulty identifying and differentiating between nouns, adjectives, and verbs.

Table 1

Percentage of Teacher Responses on Pre-Institute Surveys on Level of Understanding of Linguistic Elements of Academic Language

Level of understanding of the following:	Not at all	Some	Mod.	Large to Very Large	*n*
a. English language grammatical structures	0.0	0.0	31.3	68.8	32
b. Long noun phrases to increase sentence variety in a piece of writing	0.0	3.3	40.1	56.7	30
c. Vocabulary that reveals analysis/interpretations of characters	0.0	9.1	21.2	69.7	33
d. Verb choices that signal analysis of a character or situation	0.0	9.4	21.9	68.8	32
e. Grammatical structures that build cohesion at the sentence level	0.0	6.1	33.3	60.6	33
f. Grammatical structures that signal point of view	0.0	6.1	27.4	66.7	33
g. Grammatical structures that generate an impersonal tone	0.0	12.5	28.1	59.4	32
h. Misconceptions about English language development	3.2	16.1	32.3	48.4	31
i. Misconceptions about literacy instruction for English language learners	6.3	12.5	50.0	31.2	32
j. Misconceptions about overall English language learner achievement	3.0	18.2	33.3	45.4	33

Despite teachers' initial high reports of understanding on the pre-institute survey, teachers reported increased levels (represented in Table 2) of understanding in writing development, analyzing student writing to inform instruction, providing feedback to students, and developing ELL writing capacity. In the post-institute survey, the great majority (from 88.9 to 100%) of teachers also indicated that the training increased their knowledge of key grammatical features found in academic language (Items a-f) from a moderate to a very large amount (beyond what they understood coming into the training), with over 50% of teachers indicating the training increased their knowledge "a large amount."[6] The grammatical features for which teachers had initially indicated the highest levels of understanding in the pre-institute survey (general grammatical structures, vocabulary, and point of view) show the lowest percentage of knowledge increase in the post-institute survey. Most

[6] The exception to this is question "g" which shows the training having somewhat less of an impact on teachers for this grammatical feature with only 33.3 % of teachers indicating "a large" increase of knowledge.)

of the grammatical features for which teachers indicated less prior knowledge in the pre-institute survey demonstrate the most dramatic increase of knowledge in the post-survey with 100% of teachers indicating some level of increased knowledge in response to questions on noun phrases, verb choices, and cohesion. Only about a third of the teachers (33.3%) indicated "a large" increase in knowledge in creating impersonal tone. This may be due to the fact that there is considerable overlap in the linguistics resources that are used to achieve impersonal tone as well as cohesion and point of view. Given this pattern of results, the training was less effective in highlighting those similarities as well as differences in this area.

Overall, however, it appears that teachers perceived the training to have increased their knowledge of key grammatical features necessary for academic written discourse in general, and expository writing[7] in particular.

Teachers also indicated increased knowledge of misconceptions about English Language Development in the post-institute survey with 88% of teachers indicating some level of increased understanding, and approximately 40% indicating "a large" or "very large" increase of ELD understanding due to the training. This finding was somewhat surprising since the training focused on patterns of ELL difficulty in writing without much attention to developmental differences. Anecdotal data suggests that the training revealed for teachers' that ELLs do have some capabilities in producing most of these grammatical features (albeit with minimal control) resulting in a greater awareness of the linguistic knowledge with which ELLs come to school. This awareness may have made teachers believe they were better prepared to plan instruction aimed at pushing students' English language development forward as a result of the training regardless of specific English development levels.

[7] According to Schleppegrell (2003), response to literature or characterization is a form of expository writing. Although it can also have elements of a reflective essay, the linguistic elements necessary to realize a characterization of the type required by the LAPA prompt fall in the expository writing genre.

Table 2

Percentage of Teacher Responses on Post-Institute Surveys on Level of Understanding of Linguistic Elements of Academic Language

Level of increased understanding of the following due to institute participation:	Not at all	Some	Mod.	Large to Very Large	n
a. English language grammatical structures	3.7	7.4	22.2	66.7	27
b. Long noun phrases to increase sentence variety in a piece of writing	0.0	7.4	22.2	70.3	27
c. Vocabulary that reveals analysis/interpretations of characters	3.7	7.4	29.6	59.3	27
d. Verb choices that signal analysis of a character or situation	0.0	7.4	33.3	59.2	27
e. Grammatical structures that build cohesion at the sentence level	0.0	3.7	25.9	70.4	27
f. Grammatical structures that signal point of view	0.0	4.0	44.0	52.0	25
g. Grammatical structures that generate an impersonal tone	3.7	18.5	44.4	33.3	27
h. Misconceptions about English language development	12.0	16.0	28.0	44.0	25
i. Misconceptions about literacy instruction for English language learners	11.1	18.5	33.3	37.0	27
j. Misconceptions about overall English language learner achievement	11.1	29.6	18.5	40.7	27

Applying linguistic understanding. For the most part, teachers' initial responses to the items targeting their comfort levels in engaging students in writing and literary analysis were fairly consistent with their responses on initial levels of understanding of the targeted concepts. While over 90% of teachers reported having at least some level of comfort, less than half reported having from "high to a great" level of comfort for most items, which is reflected in Table 3. The only item that over 50% of teachers (66.7%) reported having "high to a great" level of comfort prior to the training was in identifying students' strengths and weaknesses in writing. Just below 50% of teachers reported a high degree of comfort in providing feedback to students on writing performance on the pre-institute survey.

Table 3

Percentage of Teacher Responses on Pre-Institute Surveys on Level of Comfort Regarding the Application of Linguistic Understanding Prior to Training

Level of comfort in engaging in the following activities:	Very little Not at all	Somewhat	High to great	n
a. Identifying a student's writing strengths and weaknesses from a written assignment	0.0	33.3	66.7	33
b. Providing detailed feedback regarding writing performance	3.0	48.5	48.5	33
c. Using information gleaned from a written assignment to develop an instructional plan that targets needed areas of improvement	0.0	56.3	43.8	32
d. Developing English language learners' writing skills	0.0	63.7	36.4	33
e. Developing English language learners' skills in literary analysis	6.0	66.7	27.2	33

The two areas that the majority of teachers felt less comfortable in prior to training were in developing ELLs' writing and literacy skills. This trend is consistent with the lower reports of teacher understanding in English language development, ELL literacy development, and overall achievement.

Table 4 demonstrates the increase in teachers' comfort levels in using linguistic knowledge to inform instruction and provide ELLs with feedback. The majority of teachers indicated higher comfort levels in all the areas targeted by the training in the post-institute survey, which include identifying strengths and weakness, providing detailed feedback to students, using writing performance to develop instructional plans, as well as developing ELLs' writing and literary analysis skills. The two areas with the highest comfort levels after the training were identifying students' strengths and weakness, and planning instruction. These two areas received the greatest attention during the training. Feedback to students was further addressed in the follow-up sessions.

Table 4

Percentage of Teacher Responses on Post-Institute Surveys on Level of Comfort Regarding the Application of Linguistic Understanding After the Training

Level of comfort in engaging in the following activities due to training:	Very little Not at all	Somewhat	High to great	n
a. Identifying a student's writing strengths and weaknesses from a written assignment	0.0	19.2	80.7	26
b. Providing detailed feedback regarding writing performance	0.0	33.3	66.6	27
c. Using information gleaned from a written assignment to develop an instructional plan that targets needed areas of improvement	0.0	19.2	80.8	26
d. Developing English language learners' writing skills	4.0	28.0	68.0	25
e. Developing English language learners' skills in literary analysis	3.8	39.6	61.5	26

Explicit instruction. Tables 5 and 6 reflect teachers' responses to questions regarding how frequently they provided students with explicit instruction in academic language before the institute, and how frequently they expected to provide students with explicit instruction after the institute respectively. Responses in the pre-institute survey indicate that a significant percentage of teachers providing explicit instruction to students in academic language on average, less than once a week[8]. Particularly concerning is that prior to the training about half of the teachers provided explicit instruction on noun phrases to increase sentence variety and impersonal tone less than once per week to never (51.6% and 51.5% respectively). These two areas are essential for producing and comprehending academic texts.

[8] With the exception being responses to question "a" regarding instruction of grammatical structures in general, in which teachers more frequently indicated instructing students 2 or more times a week. This finding is consistent with observations, where researchers found that teachers frequently taught grammar in a general context (e.g. parts of speech, etc.), disconnected from their functionality in text.

Table 5

Percentage of Teacher Reporting Content Coverage of Academic Language on Pre-Institute Survey

Academic language features:	Never to less than once per week	Once to several times per week	Once to more than once per day	n
a. English language grammatical structures	15.1	48.5	36.4	33
b. Long noun phrases to increase sentence variety in a piece of writing	51.6	41.9	6.4	31
c. Vocabulary that reveals analysis/interpretations of characters	27.3	66.7	6.1	33
d. Verb choices that signal analysis of a character or situation	35.5	58.0	6.4	31
e. Grammatical structures that build cohesion at the sentence level	21.3	60.6	18.2	33
f. Grammatical structures that signal point of view	42.4	48.5	9.1	33
g. Grammatical structures that generate an impersonal tone	51.5	39.4	9.1	33

The pattern of responses in the post-institute survey (See Table 6) suggests that teachers expected to teach the various grammatical features more frequently after the institute. This can be seen by the reduction in percentage of teachers who indicated that they would teach grammatical features less than once per week. The great majority of teachers reported plans to teach all the grammatical features at least once per week.

Table 6

Percentage of Teacher Reporting Content Coverage of Academic Language on Post-Institute Survey

Academic language features:	Never to less than once per week	Once to several times per week	Once to more than once per day	n
a. English language grammatical structures	7.7	76.9	15.4	26
b. Long noun phrases to increase sentence variety in a piece of writing	11.1	81.4	7.4	27
c. Vocabulary that reveals analysis/interpretations of characters	7.4	74.0	18.5	27
d. Verb choices that signal analysis of a character or situation	11.5	73.1	15.4	26
e. Grammatical structures that build cohesion at the sentence level	7.7	92.3	0.0	26
f. Grammatical structures that signal point of view	18.5	70.3	11.1	27
g. Grammatical structures that generate an impersonal tone	18.5	81.4	0.0	27

Assessment and instructional processes. Teachers' responses indicate a range of comfort levels prior to the institute in the use of assessment and instructional processes targeted by the institute and outlined in Tables 7 and 8. Teachers felt the most prepared to provide feedback to students on writing content and organizational skills prior to the institute. In the post-institute survey, slightly less than half of the participants indicated that the institute helped prepare them to carry out these activities in the classroom to a high or great extent, excluding the Writer's Workshop approach (with just over 50% of teachers). This is not surprising since the institute focused less in these areas during the weeklong institute. They were however, addressed further during the follow-up sessions.

Table 7

Percentage of Teacher Comfort Levels in Assessment and Instructional Processes Targeted by the Institute on the Pre-Institute Survey

Level of comfort in assessment and instructional processes with English language learners:	Very little to Not at all	Somewhat	High to great	n
a. Provide feedback to students on their understanding of English language grammar	3.1	59.4	37.5	32
b. Providing feedback to students on their understanding of content work (e.g., key vocabulary, literary elements, etc.,)	3.1	31.3	65.7	32
c. Provide feedback to students on their writing organizational skills	0.0	51.6	48.7	31
d. Utilize small interactive groups to create opportunities for students to discuss ideas, texts, and concepts	6.3	43.8	50.1	32
e. Utilizing the readers' workshop approach to teaching reading	10.0	46.7	43.3	30
f. Utilizing the writers' workshop approach to teaching writing	6.5	54.8	38.7	31

Table 8

Percentage of Teacher Comfort Levels in Assessment and Instructional Processes Targeted by the Institute on the Post-Institute Survey

Level of comfort in assessment and instructional processes with English language learners:	Very little to Not at all	Somewhat	High to great	n
a. Provide feedback to students on their understanding of English language grammar	3.7	48.1	48.1	27
b. Providing feedback to students on their understanding of content work (e.g., key vocabulary, literary elements, etc.,)	7.4	48.1	44.4	27
c. Provide feedback to students on their writing organizational skills	0.0	55.5	44.4	27
d. Utilize small interactive groups to create opportunities for students to discuss ideas, texts, and concepts	3.7	48.1	48.1	27
e. Utilizing the readers' workshop approach to teaching reading	11.1	44.4	44.4	27
f. Utilizing the writers' workshop approach to teaching writing	4.0	44.4	52.0	25

Overall satisfaction and feedback. With regards to instructional application, 80% of teachers indicated that the institute would greatly influence their future instruction, and 88.5% felt satisfied to extremely satisfied with the training in general.

Teachers' specific comments about the training, related to either the functional grammar content of the training or the process of training itself, were solicited and examined. In terms of content, teachers' comments were overwhelmingly positive. In particular, teachers were pleased with what they perceived as the applicability of the ideas and strategies into the classroom setting, as well as the potential impact of functional grammar instruction on improving student writing. Teachers commented that the mini-lessons provided for them, as well as the time allotted during the training, for a collaboration between teachers to plan lessons that was highly useful. A few teachers commented on not feeling secure in their understanding of the functional grammar concepts and so were somewhat wary of how well they would be able to teach these concepts to students. Of these few teachers, most felt that they would become clearer on the concepts through the practice of teaching itself.

As for the training process, most teachers commented on enjoying the opportunity to practice the mini-lessons in small groups and then share out for whole group feedback. Many teachers also commented positively on what they viewed as a high level of professional dialogue occurring during the training; comprehensive resource materials for later review; and on presenters being knowledgeable, organized and helpful. Additionally, most teachers appreciated the opportunity to analyze student essays, commenting that the analysis process provided them with better resources for giving meaningful feedback to students and informing next steps in writing instruction.

Only two critiques were expressed in their responses. First a few teachers felt that the participatory practices (role play activities, in particular) occurring during the training slowed down its pace too much. Second, a few teachers mentioned that the focus on theme/rheme analysis on the second day of training was too extensive and led to a loss of engagement for them. However, the great majority of teachers provided very positive comments about both the training content and process.

Taken together, these data indicate that while the training could be improved, teachers perceived it as highly effective in that they reported increased levels of understanding in key linguistic elements that realize academic registers. They also

reported higher levels of comfort in engaging ELLs in assessment and instructional processes that highlight the academic register, and reported an increase in their expectation to provide explicit instruction in linguistic elements.

Analysis of Student Writing

Pre-and Post Tests

Following the training, teachers reviewed three additional sample student essays and responded to the same series of questions. Tables 9 and 10 present means for teachers' student feedback categories in three critical areas—student strengths, weaknesses, and targeted instructional intervention in writing.

Teacher feedback related to student strengths and weaknesses appeared to shift as a result of the training. As illustrated in Table 9, the direction of the means was in the expected direction for all but two of the feedback categories related to strengths and weaknesses. As expected, the means related to feedback categories that are common for teachers (referred to as general feedback) who do not have deeper levels of linguistic knowledge (comprehension, paragraph/essay structure, mechanics, organization, and sentence structure) decreased whereas the means reflecting knowledge of functional grammar (transitions, point of view, verb phrases, noun phrases, and theme/rheme) increased. The reduction for all but one of the common feedback categories identified as strengths was statistically significant (see Table 10). Further, the increase in the means for feedback related to transitions and verb phrases was significant. Since these papers were written by students who had not received instruction in functional grammar concepts, it is not surprising that the other areas (point of view, noun phrases, and theme/rheme) were not identified by teachers as strengths on the post-test. These papers indeed reflected a general lack of control in these areas.

Table 9

Pre- and Post-Test Means for Categories of Strengths and Weaknesses

Categories of responses	Strengths		Weaknesses	
	Pre-Test	Post Test	Pre-Test	Post Test
Comprehension—includes examples, analysis, development, description; understands characters, story	1.87	1.68	1.23	0.90
Paragraph/essay structure—uses essay format; includes topic sentences, topic and concluding paragraphs; understands paragraphing	1.81	1.06	2.03	1.32
Mechanics—spelling, vocabulary, punctuation, grammar	0.65	0.16	2.52	0.87
Organization—essay organization, focus, clarity	0.58	0.26	0.58	0.68
Sentence structure—uses basic sentence structure, sentence variation	1.74	1.06	0.87	0.39
Transitions—integrates transition and sequence words; paragraph flow	0.13	0.42	0.35	0.19
Point of view—clear; includes opinion	0.06	0.23	0.23	0.45
Verb phrases—includes mental verbs, varied verb types, extended verb phrases	0.00	0.45	0.03	0.97
Noun phrases—use of nouns	0.00	0.10	0.39	1.23
Theme/Rheme—connects sentences	0.00	0.06	0.00	0.68

Table 10

Mean Difference Between Pre-and Post Test Identification of Strengths

Identified strengths:	*n*	sd	df	t-value	2-tail prob.
Comprehension—includes examples, analysis, development, description; understands characters, story	31	1.83	30	0.59	.56
Paragraph/essay structure—uses essay format; includes topic sentences, topic and concluding paragraphs; understands paragraphing	31	1.83	30	2.26	.03
Mechanics—spelling, vocabulary, punctuation, grammar	31	0.68	30	3.98	.00
Organization—essay organization, focus, clarity	31	0.83	30	2.16	.04
Sentence structure—uses basic sentence structure, sentence variation	31	1.89	30	2.0	.05
Transitions—integrates transition and sequence words; paragraph flow	31	0.69	30	-2.33	.03
Point of view—clear; includes opinion	31	0.64	30	-1.41	.17
Verb phrases—includes mental verbs, varied verb types, extended verb phrases	31	0.62	30	-4.03	.00
Noun phrases—use of nouns	31	0.30	30	-1.79	.08
Theme/Rheme—connects sentences	31	0.25	30	-1.44	.16

In terms of the feedback related to weaknesses, only one of the pre- and post-test mean differences was statistically significant (see Table 11). This is not particularly troublesome since these more general feedback categories should not be ignored by teachers, as they are areas students will be held accountable for in state assessments. What is important is that teachers appeared to focus their feedback less in the general feedback categories and more specific feedback was observed related to control of linguistic structures that would improve student writing after the training. Three of the two means reflecting functional grammar feedback categories were statistically significant (verb phrases, noun phrases, and theme/rheme).

Table 11

Mean Difference Between Pre-and Post Test Identification of Weaknesses

Identified Weaknesses:	*n*	sd	df	t-value	2-tail prob.
Comprehension—need more examples, development, description; too much retelling	31	1.08	30	1.67	.11
Paragraph/essay structure— paragraphing, topic and concluding paragraphs, topic sentences; need to use thesis statement, essay format; writing issues	31	2.24	30	1.77	.09
Mechanics—spelling, run-ons, grammar, verb tense, fragments, punctuation, capitalization, vocabulary, indentation	31	2.36	30	3.88	.00
Organization—organization, clarity; off topic	31	0.98	30	.55	.59
Sentence structure—only basic structure; need more variation	31	1.53	30	1.78	.09
Transitions—paragraph flow; lack connectors	31	0.82	30	1.10	.28
Point of view—unclear; opinion issues	31	0.81	30	1.56	.13
Verb phrases—too many attributive, action verbs; need variation in verb type	31	1.03	30	5.05	.00
Noun phrases—expanded noun phrases, pronouns, nominalization, unclear character references	31	1.24	30	3.76	.00
Theme/rheme—need connections across sentences; need theme variation	31	0.98	30	3.86	.00

Pre-and post-test means of the categories for targeted instructional plans are presented in Table 12. Similar to the findings presented above, the distribution of teachers' comments related to methods for targeting instruction changed over time, reflecting teachers' learning from the training session. As presented in Table 12, all but one of the means changed in the expected direction. Plans focusing on non-functional grammar concepts decreased and plans focusing on functional grammar concepts increased. All but two of the mean differences in the global feedback (organization) category and one in the functional grammar (point of view) category were statistically significant. Results of the t-tests are found in Table 13.

Table 12

Pre- and Post-Test Means for Categories for Targeting Instruction for the Student

Categories of responses	Pre-Test	Post Test
Mechanics—target vocabulary, spelling, verb tense, grammar, punctuation, fragments, capitalization, run-ons	2.00	0.42
Paragraph/essay structure—teach paragraphing, topic and concluding paragraph development, essay format, use of thesis statement, topic sentence	1.97	0.68
Writing process— teach the writing process; provide examples and practice; recommend prewriting, peer editing	1.55	1.03
Comprehension—teach how to integrate more examples, development, analysis	1.32	0.68
Sentence structure—focus on sentence structure, variation	0.97	0.00
Transitions—target use of transitions	0.52	0.23
Organization—how to stay on topic	0.32	0.19
Noun phrases—focus on pronoun use, nominalization, and expanded noun phrases	0.19	1.26
Point of view—increase use of third person, inclusion of opinion	0.13	0.23
Verb phrases—focus on verb type variation	0.10	0.84
Theme/rheme—teach how to connect themes to rhemes across sentences	0.00	1.10

All but one of the means (transitions) changed in the expected direction. Instructional plans focusing on non-functional grammar concepts decreased and plans focusing on functional grammar concepts increased. All but two of the mean differences in the global feedback (organization) category and one in the functional grammar (point of view) category were statistically significant. Results of the t-tests are found in Table 13.

Table 13

Mean Difference Between Pre-and Post Test Methods for Targeting Instruction for the Student

Identified weaknesses:	*n*	sd	df	t-value	2-tail prob.
Mechanics—target vocabulary, spelling, verb tense, grammar, punctuation, fragments, capitalization, run-ons	31	2.09	30	4.20	.00
Paragraph/essay structure—teach paragraphing, topic and concluding paragraph development, essay format, use of thesis statement, topic sentence	31	1.83	30	3.93	.00
Writing process— teach the writing process; provide examples and practice; recommend prewriting, peer editing	31		30		
Comprehension—teach how to integrate more examples, development, analysis	31	1.45	30	2.48	.02
Sentence structure—focus on sentence structure, variation	31	1.05	30	5.14	.00
Transitions—target use of transitions	31	0.78	30	2.07	.05
Organization—how to stay on topic	31	0.76	30	.94	.35
Noun phrases—focus on pronoun use, nominalization, and expanded noun phrases	31	1.34	30	4.42	.00
Point of view—increase use of third person, inclusion of opinion	31	0.65	30	.83	.41
Verb phrases—focus on verb type variation	31	1.18	30	3.49	.00
Theme/rheme—teach how to connect themes to rhemes across sentences	31	1.17	30	5.24	.00

Further evidence of the shift in teachers' analysis of student papers is observed when we collapse the categories of teacher feedback and instructional planning into: (a) traditional feedback and planning, reflecting analysis that is common in teachers who have not received training in functional grammar; and (b) functional grammar feedback and planning, reflecting the functional grammar concepts targeted by the training. This aggregation results into six sets of paired means (composites) for which we ran t-tests. Table 14 presents the means for these composites and demonstrates that the means in every case change in the expected direction. That is, traditional feedback and planning means decrease and functional grammar feedback and planning means increase.

Table 14

Pre- and Post-Test Means for Feedback and Instructional Planning Composites (n=31)

	Strengths		Weaknesses		Instructional plans	
Composite variable	Pre-Test	Post Test	Pre-Test	Post Test	Pre-Test	Post Test
Traditional	6.65	4.23	7.23	4.23	8.13	3.00
sd	3.63	2.80	3.31	2.80	3.35	2.32
Functional Grammar	0.06	0.84	0.65	3.32	0.42	3.41
sd	0.25	0.97	0.80	2.17	0.67	2.68

As depicted in Table 15, all of these differences are statistically significant. These results indicate that the training was effective in drawing teachers away from feedback and planning that is less conducive to ELLs' improvement in writing because it lacks specificity, to providing feedback and planning that corresponds to our operationalization of academic language, which is achieved through linguistic analysis using a systematic functional linguistics model. It is this linguistic analysis that allows teachers to target key linguistic structures which we argue is more likely to produce changes in student writing.

Table 15

Mean Difference Between Pre-and Post Test for Feedback and Instructional Planning Composites

Identified weaknesses:	*n*	sd	df	t-value	2-tail prob.
Traditional Feedback on Strengths	31	4.06	30	3.32	.00
Traditional Feedback on Weaknesses	31	4.46	30	3.74	.00
Traditional Instructional Planning	31	3.27	30	8.72	.00
Functional Grammar on Strengths	31	1.02	30	4.21	.00
Functional Grammar on Weaknesses	31	2.26	30	6.61	.00
Functional Grammar Instructional Planning	31	2.82	30	5.93	.00

Effect of teaching experience on training uptake. Interesting trends in instructional practice were observed based on level of teaching experience. Specifically, levels of teaching experience and the perceived appropriateness of the adopted English language arts program appear to be possible influencing variables effecting instructional practices. Based on the literature review of appropriate ELL instruction (including ELL specific strategies to structure instruction, and explicit knowledge and skills in academic language to inform lesson content), teachers with less two or less years of experience, as demonstrated in the interviews, described their instructional practices in a manner that showed less preparedness for providing ELL appropriate lessons than more experienced teachers. Additionally, these teachers seemed less able to integrate new teaching knowledge and strategies into their classroom practices as relayed to them through CRESST trainings. Teachers with three to ten years of experience represented a fairly consistent group. In general, they appeared to have both sufficient enough content area knowledge to understand the new concepts presented during the training, and sufficient and flexible enough pedagogical knowledge to integrate new strategies into their teaching practices. Teachers with eleven or more years teaching experience appeared to be the most varied group. While some of these teachers appeared to still be engaged in developing their pedagogical and content area knowledge, others seemed to be disengaged from continued professional development and so did not have any significant uptake of the training concepts. Observers felt that the small group of teachers who continued engagement with improving their professional practice after eleven or more years of teaching experience represented some of the best practitioners of all the participating teachers. Therefore amongst the teachers trained in academic language, a teachers' level of teaching experience affected his or her level of engagement with the training in different ways, and as such, impacted the degree to which he or she was able to utilize the new concepts introduced to them through the training.

Teachers in the group with mid-level teaching experience and those still engaged after ten years of teaching experience, were also more likely to utilize ELL processes to scaffold their instruction and provide explicit academic language skills content instruction. The following quote illustrates the degree of integration these teachers were able to achieve after six days of training.[9]

[9] This includes the four days of initial training and two full day follow-up sessions.

> I use a number of mini-lessons that we learned in the trainings. We did prepositional phrases. We've talked about expanded noun phrases. We've done extreme sentences, which is not just expanding noun phrases, but also the verb in making the process more specific. We have also talked about shades of meaning. Some things outside of the mini-lessons, we talked about engaging beginnings for stories. We also did some of the different graphic organizers with a previous book we read….going back and choosing some different stories with some of the graphic organizers. It was the action, how the characters react, and the characters' thoughts, so we did some of those.

The following quote by a first-year teacher who participated in the training demonstrates the opposite end of the spectrum, showing failure to integrate either ELL processes or academic language into her instructional practices to help ELLs access new knowledge and skills.

> Okay. Specific ways first was to find a hero for them to understand what the assignment was. To explain the assignment, which some of them I wonder if they got it, but I endeavor to explain. So we start with a quick write. I explain how to define a hero. First, actually we reviewed because I wanted them to decide from all the stories that we read, it was like a review which story that they liked to do. When I did it, of course, they didn't decide. They don't want to decide. They wanted me to select a story for them. They wanted more to be told what to do, so we selected a story.

Further, this quote suggests how low student participation and motivation in the writing process can result from a lack of linguistically supported lessons which in turn leads to an over reliance on teacher directed activities. Additionally, the lack of ELL strategies appears to have lessened the level of student comprehension of the writing task, limiting their participation in critical thinking activities.

Amongst the interviewed teachers, those with one to two years of experience tended to have the most difficulty in incorporating new knowledge and processes into their teaching practices, whereas the teachers with three to ten years of experience tended to consistently have greater success at integrating the grammar-based lessons and instructional processes recommended by the CRESST training (e.g., instructional conversation). Teachers with more than ten years of experience tended to split into two groups, representing teachers with either a great or very limited capacity to integrate new concepts into their teaching. This trend may suggest that flexible pedagogical knowledge and repertoires to effectively integrate new instructional processes and content into teaching practice are characteristics influenced by the numbers of years of teaching experience.

Differences between more and less experienced teachers were also evident in how they coped with curriculum materials that they considered instructionally

inappropriate for their ELL students. Many teachers commented that the texts these materials provided are years beyond the reading ability of their students, ELL students in particular. For inexperienced teachers, their lack of experience coupled with a curriculum that was not designed to support ELLs appeared to be linked to instruction that for the most part did not support ELLs' learning needs. It was evident to CRESST researchers through observations and follow-up training sessions that a more substantive training was called for to impact the practices of these teachers.

The following teacher expressed difficulty in providing instruction to her students using her school's materials, but does not have outside resources or experience with which to supplement them. Instead she struggles with adapting the material for her low ELD students.

> The greatest obstacle that I have would be the textbook….It's really difficult for them. If the students are of a higher level, let's say a [ELD] level four, they could read the story in two days. Where in fact my students could take almost two weeks because we break down each paragraph and then it's discussed. We talk about it, and then I explain it to them, "This is what the character is saying." It takes time. Q: So you're saying the textbooks are too advanced? R: Yes, the books definitely are too advanced.

In contrast, teachers with greater experience and continued engagement with professional development seemed better able to compensate for perceived inadequate instructional materials, with the ability to draw upon past teaching experience, various models, and resources to design their own programs appropriate for meeting their students' needs. Classroom observations by the research team confirmed the higher quality instruction these teachers provided their students.

The following highly experienced teachers demonstrate through the following quotes how some teachers have the capacity to compensate for insufficient or disorganized instructional materials by relying on various experiences and resources.

> We have two core books a year that we're supposed to cover. We have a grammar book that we don't really like. We have a new literature book that hardly anyone uses. … It's been real frustrating, because there was grammar here, there was some literature here, there were core books here. It's very much put-it-together-yourself. A lot of us rely on what we've been doing when we were doing … more of a whole language approach.

I think there is not a uniform approach here… Some teachers go directly by the book, in whatever order, whatever grammar, that's what they follow. Other people, I among them, tend to be a little more pick-and-choose, and put it together the way I see being useful.

I own a lot of my own things which I bring in, too. I buy a lot of books and short stories. I purchase all these things myself. Fables, sometimes mystery books.

APPENDIX B

LAPA Prompt

Assignment

In a work of literature, a heroic character is often someone with extraordinary courage or ability who performs noble deeds or makes sacrifices. However, an ordinary person who faces extraordinary challenges can also be a heroic character.

Select a heroic character from a literary work you have read in class this year. Using specific details from the text, explain why you think this character is heroic. Some of the things you can write about are the character's:

- physical and personality traits
- impact on the story
- thoughts and motivations
- actions and relationships with other characters

2

APPENDIX C

LAPA Holistic Scoring Rubric

Rubric

The following rubric is used to assess student reading and writing skills:

ADVANCED — SCORE = 4

The response demonstrates well-developed reading comprehension skills and the ability to analyze a major literary element (characterization).

- Most of the important character features are described clearly and thoroughly. (Features may include physical and personality traits, thoughts and motivations, actions, relationships with other characters, and the character's impact on the story.)[1]
- Statements about the heroic qualities of a character are well supported or explained through references to the text.[2]
- Ideas are logically organized.
- Minor mechanical errors may be present but do not impede communication in most of the response.

PROFICIENT — SCORE = 3

The response demonstrates solid reading comprehension skills and the ability to analyze a major literary element (characterization).

- Some of the important character features are described clearly.
- Some statements about the heroic qualities of a character are generally supported or explained through references to the text.
- Most ideas are logically organized.
- Mechanical errors may be present but do not impede communication in most of the response.

PARTIALLY PROFICIENT — SCORE = 2

The response demonstrates some reading comprehension skills and the ability to analyze a major literary element (characterization).

- Few character features are described clearly, these features may not be heroic qualities.
- There is an attempt to use references to the text to support or explain the heroic qualities of a character.
- Some ideas are logically organized.
- Mechanical errors may impede communication in most of the response.

NOT PROFICIENT — SCORE = 1

The response demonstrates little or no skill in reading comprehension nor the ability to analyze a major literary element (characterization).

- Character features are not described, or the descriptions are unclear.
- Statements about the heroic qualities of a character are not supported or explained through references to the text.
- Ideas are not logically organized or are not provided.
- Many mechanical errors may impede communication throughout the response.

[1] This definition of character features applies to each score level.

[2] In general, sentences should not be copied directly from the text unless the student is using a quotation for a particular purpose.

APPENDIX D

Functional Grammar Rubric

Scoring Rubric: Character Description & Analysis

	SCORE POINT 3	SCORE POINT 2	SCORE POINT 1
Describing persons, animals, things, and concepts/ expanded noun phrases	• **Effectively** describes persons, animals, objects, places of events, and important concepts through the **varied use** of expanded noun phrases (nouns elaborated by modifying adjectives, embedded clauses, and prepositional phrases).	• **Adequately** describes persons, animals, objects, places of events, and important concepts through **some use** of expanded noun phrases.	• **Barely** describes persons, animals, objects, places of events, and important concepts through the use of expanded noun phrases.
Providing circumstantial information/adverbial expressions	• Provides **substantial** circumstantial information of the character, setting, events, and background through the **varied use** of subordinate clauses, participial phrases, and/or prepositional phrases.	• Provides **some** circumstantial information of the character, setting, events, and background through the **varied use** of subordinate clauses, participial phrases, and/or prepositional phrases.	• Provides **very limited or no** circumstantial information of the character, setting, events, and background in the form of subordinate clauses, participial phrases, and/or prepositional phrases.
Achieving well-balanced references/tracking of participants	• Illustrates **effective** control of appropriate and well-balanced references to characters as evidenced in the tracking of participants.	• Illustrates **adequate** control of appropriate and well-balanced references to characters as evidenced in the tracking of participants.	• Illustrates **weak** control of appropriate and well-balanced references to characters is evidenced in the tracking of participants.
Expressing personal opinions implicitly/word choice	• **Effectively** conveys the writer's evaluative, attitudinal, epistemic stance through the **varied use** of nouns, adjectives, adverbs, modal verbs, and processes.	• **Adequately** conveys the writer's evaluative, attitudinal, epistemic stance through the **varied use** of nouns, adjectives, adverbs, and modal verbs, processes.	• **Poorly** conveys the writer's evaluative, attitudinal, epistemic stance through the **limited use** of nouns, adjectives, adverbs, modal verbs, and processes.
Establishing an impersonal context	• **Clearly** emulates academic written discourse by using **a wide variety** of linguistic features (e.g., impersonal theme choices, modal verbs, a declarative mood and/or the lack of first/second person references).	• **Generally** emulates academic written discourse by using **a wide variety** of linguistic features	• **Barely** emulates academic written discourse.

APPENDIX E

Opportunity-to-Learn Teacher Surveys

TEACHER SURVEY

Below are questions regarding your educational experiences, classroom practices, and resources. Please answer the following questions frankly. Responses to these questions will be used to determine the factors that influence student achievement and for making recommendations to Districts about assessment programs. Be assured that the answers you provide will only be reviewed and used for these purposes by the National Center for Research on Evaluation, Standards, and Student Testing (CRESST). This information will ***not*** *be used for evaluation of teacher performance.*

_____

Teacher Name: (Last, First, MI)

_____

Complete School Name

EDUCATIONAL BACKGROUND

1. Including this year, what is the total number of years you have taught?

   a. Total teaching: _____years
   b. At this school: _____years
   c. At Grade 6 or 7: _____years
   d. English Language arts: _____ years (Write "0" if not applicable)
   e. Sheltered English: _____ years (Write "0" if not applicable)

2. Please indicate the approximate number of English or Language Arts content and/or methods courses you have taken at the following levels: (Mark only one per item.)

	None	1 – 3	4 – 6	7 – 9	10 or more
a. Undergraduate	O	O	O	O	O
b. Graduate	O	O	O	O	O

3. Please indicate the approximate number of content and/or methods courses you have taken in each of the following: (Mark only one per item.)

	None	1	2	3	4	5 or more
a. Sheltered/SDAIE	O	O	O	O	O	O
b. ESL	O	O	O	O	O	O

4. In what general field did you major as an undergraduate?

   a. O English/ Literature b. O Mathematics [or related] c. O Sciences d. O Humanities/History
   e. O Other

5. In what field is your master's degree?

   a. O English/ Literature b. O Mathematics [or related] c. O Sciences d. O Humanities/History
   e. O Education f. O TESOL g. O Linguistics h. O Other
   i. O I do not have a master's degree j. O I am currently enrolled in a master's program

6. Do you have an advanced degree, such as an Ed.D. or a Ph. D.? O Yes O No O Currently Enrolled in Program

7. What type of teaching credential do you possess? (Check all that apply.)

   a. O Elementary d. O Single Subject Clear, subject ⇨ _____
   b. O CLAD e. O Multi – Subject Clear, subjects ⇨ _____
   c. O BCLAD f. O Emergency, type ⇨ _____

8. Write the names and/or topics of recent (in the last 3 years) professional development seminars or workshops you have attended:

Name	Topic

9. Please rate your level of expertise in each of the following: (Mark only one per item.)

	Novice			Adequate		Expert
a. Analyzing the plot (i.e., beginning, middle and end) of literary works	1	2	3	4	5	6
b. Analyzing theme and characters in literary works	1	2	3	4	5	6
c. Analyzing figurative language and rhetorical devices in literary works	1	2	3	4	5	6
d. Evaluating English language grammatical structures	1	2	3	4	5	6
e. Using long noun phrases to increase sentence variety in a piece of writing	1	2	3	4	5	6
f. Using vocabulary that reveals analysis/interpretations of characters or situations	1	2	3	4	5	6
g. Using verb choices that signal analysis of a situation or character	1	2	3	4	5	6
h. Using grammatical structures that build cohesion at the sentence level	1	2	3	4	5	6
i. Using grammatical structures that signal point of view	1	2	3	4	5	6
j. Using grammatical structures that generate an impersonal tone	1	2	3	4	5	6

CLASSROOM PRACTICES

10. During this school year, how much class time was spent learning about or doing each of the following in your class(es)? (Mark only one per item.)

	None at all	less than 1 week	1 week to less than 2 weeks	2 weeks to less than 3 weeks	3 weeks to less than 4 weeks	4 or more weeks
a. Summarizing the plot of novels, plays, or short stories	1	2	3	4	5	6
b. Describing the theme of novels, plays, or short stories	1	2	3	4	5	6
c. Describing heroic qualities of characters	1	2	3	4	5	6

	None at all	less than 1 week	1 week to less than 2 weeks	2 weeks to less than 3 weeks	3 weeks to less than 4 weeks	4 or more weeks
d. Describing characters' physical or personality traits	1	2	3	4	5	6
e. Describing characters' motivations, thoughts, and feelings	1	2	3	4	5	6
f. Describing characters' actions or relationship with other characters	1	2	3	4	5	6
g. Using information from novels, plays, or short stories read in class to support ideas	1	2	3	4	5	6
h. Writing about heroic qualities of characters, sacrifices they make or how they are courageous	1	2	3	4	5	6
i. Writing about other aspects of characters, like physical traits, their relationship with other characters, or impact on the story	1	2	3	4	5	6

11. During this school year, on average, how often did you provide explicit instruction in the following areas to help encourage students' writing development in your class(es)? (Mark only one per item.)

	Never	Less than once per week	Once per week	2-4 times per week	Once per day	2 or more times per day
a. English language grammatical structures	1	2	3	4	5	6
b. Long noun phrases to increase sentence variety in a piece of writing	1	2	3	4	5	6
c. Vocabulary that reveals analysis/ interpretations of characters or situations	1	2	3	4	5	6
d. Verb choices that signal analysis of a character or situation	1	2	3	4	5	6
e. Grammatical structures that build cohesion at the sentence level	1	2	3	4	5	6
f. Grammatical structures that signal point of view	1	2	3	4	5	6
g. Grammatical structures that generate an impersonal tone	1	2	3	4	5	6

12. During this school year, on average, how often did you engage students in each of the following activities in your class(es)? (Mark only one per item.)

	Never	Less than once a month	About once a month	About twice a month	Once or twice a week	Almost every day
a. Complete worksheets on grammar	1	2	3	4	5	6
b. Complete worksheets on spelling	1	2	3	4	5	6
c. Complete worksheets on vocabulary	1	2	3	4	5	6

	Never	Less than once a month	About once a month	About twice a month	Once or twice a week	Almost every day
d. Conduct whole group instruction on key content work (not including reading to the whole class)	1	2	3	4	5	6
e. Conduct small interactive groups to create opportunities for students to discuss ideas, text, and concepts with teacher guidance	1	2	3	4	5	6
f. Read literary works (novels, short stories, poetry, essays or plays) as a whole class	1	2	3	4	5	6
g. Read literary works independently (e.g., silent reading or listening to books on audiotape)	1	2	3	4	5	6
h. Read and discuss literary works in student-lead small groups without the teacher present	1	2	3	4	5	6
i. Use pre-writing activities (e.g., clustering, webbing, or brainstorming) to organize ideas	1	2	3	4	5	6
j. Write about literature discussed in class	1	2	3	4	5	6
k. Revise writing to clarify ideas	1	2	3	4	5	6
l. Revise writing to improve logic and/or organization	1	2	3	4	5	6
m. Edit writing to improve spelling and/or punctuation	1	2	3	4	5	6

13. During this school year, how often did you use the following assessment strategies? (Mark only one per item.)

	Never	Less than once a month	About once a month	About twice a month	Once or twice a week	Almost every day
a. Analyze students' writing assignments to assess their knowledge of literary elements	1	2	3	4	5	6
b. Analyze students' writing assignments to assess their knowledge of English grammar	1	2	3	4	5	6
c. Analyze students' writing assignments to assess their knowledge of key vocabulary and content concepts	1	2	3	4	5	6
d. Analyze students' writing assignments to assess their organization skills	1	2	3	4	5	6
e. Analyze students' writing assignments to assess their spelling and punctuation	1	2	3	4	5	6

14. During this school year, how often did you use the information from classroom assessments to do the following?

	Never	Less than once a month	About once a month	About twice a month	Once or twice a week	Almost every day
a. Provide regular feedback to students on their understanding of English language grammar	1	2	3	4	5	6
b. Provide regular feedback to students on their understanding of content work (e.g., key vocabulary, literary elements, etc.,)	1	2	3	4	5	6
c. Provide regular feedback to students on their writing organizational skills	1	2	3	4	5	6
d. Provide regular feedback to students on their spelling and punctuation skills	1	2	3	4	5	6

INSTRUCTIONAL PRACTICES FOR ENGLISH LANGUAGE LEARNERS

15. During this school year, how often do you incorporate the following English language learner instructional strategies into your lessons? (Mark only one per item.)

	Never	Less than once per week	Once per week	2-4 times per week	Once per day	2 or more times per day
a. Use supplementary materials (e.g., graphs, models, visuals) to clarify and illustrate concepts	1	2	3	4	5	6
b. Adapt content (e.g., text, assignments) to all levels of students' English proficiency	1	2	3	4	5	6
c. Explicitly link new concepts to students' background experiences and past learning	1	2	3	4	5	6
d. Adapt speech to accommodate the range of English proficiency levels	1	2	3	4	5	6
e. Use scaffolding techniques to support students' understanding	1	2	3	4	5	6
f. Provide opportunities for student-to-teacher interactions that encourage elaborated responses	1	2	3	4	5	6
g. Provide opportunities for student-to-student interactions that encourage elaborated responses	1	2	3	4	5	6
h. Provide activities for students to practice using new skills, concepts, and vocabulary	1	2	3	4	5	6
i. Provide opportunities for students to clarify key concepts in primary language	1	2	3	4	5	6

16. Please indicate the extent to which you agree with each of the following statements: (Mark only one per item.)

	Strongly disagree	Disagree	Disagree slightly more than agree	Agree slightly more than disagree	Agree	Strongly Agree
a. It is too time consuming to investigate students' background.	1	2	3	4	5	6
b. It is important to make every effort to adapt all lessons for the language diversity in the classroom.	1	2	3	4	5	6
c. English language learners need to have a good grasp of English grammar before instructing them on literary analysis.	1	2	3	4	5	6
d. Differentiating instruction is not necessary for English language learners because all students are language learners.	1	2	3	4	5	6
e. Teachers cannot possibly be expected to investigate every student's background.	1	2	3	4	5	6
f. English language learners learn best through direct instruction of isolated skills.	1	2	3	4	5	6
g. It is too difficult to differentiate instruction at the middle school level.	1	2	3	4	5	6
h. Literary analysis is beyond the level of ability of English language learners.	1	2	3	4	5	6
i. Teachers should make a strong effort to include topics in their instruction that are relevant to the experiences of English language learners.	1	2	3	4	5	6
j. Development of academic content is the primary goal of ELD instruction.	1	2	3	4	5	6
k. Development of the linguistic structures of English is the primary goal of ELD instruction.	1	2	3	4	5	6
l. It is very difficult to provide a challenging curriculum to students because of the wide variation in English proficiency.	1	2	3	4	5	6
m. The curriculum I use is adaptable to students with wide variation in English proficiency.	1	2	3	4	5	6

CLASSROOM RESOURCES

17. How often do you incorporate the use of the following into your instruction? (Mark only one per item.)

	Never/Not available in my classroom	Less than once a month	About once a month	About twice a month	Once or twice a week	Almost every day
a. Dictionaries	1	2	3	4	5	6
b. Thesauruses	1	2	3	4	5	6
c. Leveled library	1	2	3	4	5	6
d. Computer(s) with literacy software	1	2	3	4	5	6
e. Books on audiotape	1	2	3	4	5	6
f. Realia/picture library	1	2	3	4	5	6

APPENDIX F

Teacher Observation Protocol

`The Sheltered Instruction Observation Protocol (SIOP)

Observer: _____ Teacher: _____
Date: _____ School: _____
Grade: _____ Lesson: Multi-day Single-day *(circle one)*

Directions: Circle the number that best reflects what you observe in a sheltered lesson. You may give a score from 0 to 4. Cite under "Comments" specific examples of the behavior observed.

I. Preparation

4	3	2	1	0	NA
1. Clearly defined **content (e.g., literary elements, spelling, vocabulary words) objectives** for students		**Content objectives** for students implied		No clearly defined **content objectives**	

Comments:

4	3	2	1	0	NA
2. Clearly defined **language (e.g. functional grammar, building vocabulary, forms and functions) objectives** for students		**Language objectives** for students implied		No clearly defined **language objectives** for students	

Comments:

4	3	2	1	0	NA
3. **Content concepts** appropriate for age and educational background level of students		**Content concepts** somewhat appropriate for age and educational background level of students		**Content concepts** inappropriate for age and educational background level of students	

Comments:

4	3	2	1	0	NA
4. **Supplementary materials** used to a high degree, making the lesson clear and meaningful (e.g. graphs, models, visuals, related literature)		Some use of **supplementary materials**		No use of **supplementary materials**	

Comments:

4	3	2	1	0	NA
5. **Adaptation of content** (e.g., text, assignment, graphic organizers) to all levels of student proficiency		Some **adaptation of content** to all levels of student proficiency		No significant **adaptation of content** to all levels of student proficiency	

Comments:

II. Instruction

Building Background

4	3	2	1	0	NA
6. **Concepts explicitly linked** to students' background experiences		**Concepts loosely linked** to students' background experiences		**Concepts not explicitly linked** to students' background experiences	

Comments:

4	3	2	1	0	NA
7. **Links frequently made** between past learning and new concepts		**Few links made** between past learning and new concepts		**No links made** between past learning and new concepts.	

Comments:

4	3	2	1	0	NA
8. **Key vocabulary emphasized** (e.g., introduced, written, repeated, and highlighted for students to see)		**Key vocabulary** introduced, but not emphasized		**Key vocabulary** not emphasized	

Comments:

Comprehensible Input

4	3	2	1	0	NA
9. **Speech** appropriate for students' proficiency level (e.g., slower rate and enunciation, and simple sentence structure for beginners)		**Speech** sometimes inappropriate for students' proficiency level		**Speech** inappropriate for students' proficiency level	

Comments:

4	3	2	1	0	NA
10.**Explanation** of academic tasks clear		**Explanation** of academic tasks somewhat clear		**Explanation** of academic tasks unclear	

Comments:

4	3	2	1	0	NA
11. Uses a variety of **techniques** to make content concepts clear (e.g., modeling, visuals, hands-on activities, demonstrations, gestures, body language)		Use some **techniques** to make content concepts clear.		Uses few or no **techniques** to make content concepts clear	

Comments:

Strategies

4	3	2	1	0	NA
12. Provides ample opportunities for students to use **learning strategies** (e.g., SQ3R, PENS, etc.)		Provides students with inadequate opportunities to use **strategies**		No opportunity for students to use **strategies**	

Comments:

4	3	2	1	0	NA
13. Consistent use of **scaffolding** techniques throughout lesson, assisting and supporting students understanding (e.g., paraphrasing, think-alouds)		Occasional use of **scaffolding** techniques		No use of **scaffolding** techniques	

Comments:

4	3	2	1	0	NA
14. Teacher uses a variety of **question types, including those that promote higher-order thinking skills** (e.g., literal, analytical, and interpretive questions)		Teaching infrequently poses **questions that promote higher-order thinking skills**		Teacher does not pose **questions that promote higher-order thinking skills**	

Comments:

Interaction

4	3	2	1	0	NA
15. Frequent opportunities for **interaction** and discussion **between teacher/student** which encourage elaborated responses about lesson concepts		**Interaction** mostly teacher-dominated with some opportunities for students to talk about or question lesson concepts		**Interaction** primarily teacher-dominated with no opportunities for students to discuss lesson concepts	

Comments:

4	3	2	1	0	NA
16. Frequent opportunities for **interaction** and discussion **among students** which encourage elaborated responses about lesson concepts		**Interaction** mostly teacher-dominated with some opportunities for students to talk about or question lesson concepts		**Interaction** primarily teacher-dominated with no opportunities for students to discuss lesson concepts	

Comments:

4	3	2	1	0	NA
17. **Grouping configurations** support language and content objectives of the lesson		**Grouping configurations** unevenly support the language and content objectives		**Grouping configurations** do not support the language and content objectives	

Comments:

4	3	2	1	0	NA
18. Consistently provides sufficient **wait time for student responses**		Occasionally provides sufficient **wait time for student responses**		Never provides sufficient **wait time for student responses**	

Comments:

4	3	2	1	0	NA
19. Ample opportunities for students to **clarify key concepts in L1** as needed with aide, peer, or L1 text		Some opportunity for students to **clarify key concepts in L1**		No opportunity for students to **clarify key concepts in L1**	

Comments:

Practice/Application

4	3	2	1	0	NA
20. Provides **hands-on** materials and/or manipulatives for students to practice using new content knowledge		Provides few **hands-on** materials and/or manipulatives for students to practice using new content knowledge		Provides no **hands-on** materials and/or manipulatives for students to practice using new content knowledge	

Comments:

4	3	2	1	0	NA
21. Provides activities for students to **apply language knowledge** (functional grammar concepts) in the classroom		Provides activities for students to **apply** either **content or language knowledge** in the classroom		Provides no activities for students to **apply content or language knowledge** in the classroom.	

Comments:

4	3	2	1	0	NA
22. Uses activities that integrate all **language skills** (i.e., reading, writing, listening, and speaking)		Uses activities that integrate some **language skills**		Uses activities that apply to only one **language skills**	

Comments:

4	3	2	1	0	NA
23. Uses **meaningful activities** that reflect real-life situations and/or applications		Uses some **meaningful activities**		Uses no **meaningful activities**	

Comments:

Lesson Delivery

4	3	2	1	0	NA
24. **Content objectives** clearly supported by lesson delivery		**Content objectives** somewhat supported by lesson delivery		**Content objectives** not supported by lesson delivery	

Comments:

4	3	2	1	0	NA
25. **Language objectives** (functional grammar concepts) clearly supported by lesson delivery		**Language objectives** supported somewhat by lesson delivery		**Language objectives** not supported by lesson delivery	

Comments:

4	3	2	1	0	NA
26. **Pacing** of the lesson appropriate to the students' proficiency level		**Pacing** generally appropriate, but at times too fast or too slow		**Pacing** inappropriate to the students' ability level	

Comments:

4	3	2	1	0	NA
27. **Expectations** clearly defined and communicated		**Expectations** made somewhat clear		**Expectations** not defined or communicated	

Comments:

28. Check the principles of functional grammar that were addressed in the lesson. Then circle the number that best represents the extent to which the checked principles were addressed in the lesson.

	A great extent		Some		Barely covered
☐ Topical theme choices to increase sentence variety in a piece of writing (nominalization, expanded noun phrases, prepositional phrases, participial clauses, and subordinate clauses in topical theme position)	4	3	2	1	0
☐ Vocabulary that reveals the writer's critical evaluation and appreciation of characters or situations (adjectives, adverbs, nouns that carry evaluative, attributive content)	4	3	2	1	0
☐ Verb choices that signal the writer's analysis and interpretations of a situation or character (mental, attributive, attitudinal processes)	4	3	2	1	0
☐ Grammatical structures that build cohesion at the discourse level (connectors, marked themes, and expanded noun phrases that summarize preceding content through embedding)	4	3	2	1	0
☐ Grammatical structures that frame the writer's point of view in conveying a proposition (modal verbs and expressions that mark the writer's epistemic and attitudinal stance)	4	3	2	1	0
☐ Grammatical structures that generate an impersonal context (nominalization and expanded noun phrases, avoiding 1st and 2nd person reference)	4	3	2	1	0

III. Review/Assessment

4	3	2	1	0	NA
29. Comprehensive **review of key vocabulary**		Uneven **review of key vocabulary**		No **review of key vocabulary**	

Comments:

4	3	2	1	0	NA
30. Comprehensive **review of key content concepts**		Uneven **review of key content**		No **review on key content**	

Comments:

4	3	2	1	0	NA
31. Regularly provides **meaningful, specific feedback** to students on their output (e.g., language, content, work)		Inconsistently provides **meaningful, specific feedback** to students on their output		Provides no **meaningful, specific feedback** to students on their output	

Comments:

4	3	2	1	0	***NA***
32. Conducts **assessment** of student comprehension and learning of all lesson objectives (e.g., spot checking, group response) throughout the lesson		Conducts **assessment** of student comprehension and learning of some lesson objectives		Conducts no **assessment** of student comprehension and learning of lesson objectives.	

Comments:

IV. Overview of Lesson Content

33. Check the elements of literary analysis that were covered in the lesson observed and briefly describe how each was addressed.

☐ Character study _____

_____

☐ Theme of work _____

_____

☐ Setting _____

_____

☐ Plot _____

_____

☐ Conflict/Resolution _____

_____

☐ Point of view _____

_____

☐ Symbolism/imagery _____

_____

34. Check the genre of writing addressed in the lesson observed.

☐ Narrative fiction
☐ Autobiography
☐ Compare/contrast
☐ Persuasive
☐ Description
☐ Explanation
☐ Problem/solution
☐ Response to literature

APPENDIX G

Interview Protocol

CONSEQUENCES TEACHER INTERVIEW PROTOCOL I

Interviewer: **READ VERBATIM TO INTERVIEWEE**

Thank you for agreeing to participate in this interview. The purpose of this interview is to learn about your experiences with the Language Arts Performance Assignment (LAPA), as well as gain some background information about the lesson I observed in your classroom. This interview will take approximately 20 minutes.

Your name will not be used in the final transcription of this interview, and any identifying information will be deleted from the final transcript. No one will read the transcript other than the members of the UCLA Evaluation Team, and all contents of this interview are confidential.

You may choose not to answer a question, and/or choose to terminate the interview if you do not feel comfortable. Participation in this study is strictly voluntary. The decision not to participate will in no way affect your relationship with the school, district, or with UCLA.

If there are sensitive issues that you would like to discuss, but prefer for them not to be entered into the transcription, the interviewer will honor your request and that portion of your interview will not be transcribed. You may also ask for clarification at any time if you don't understand a question, would like clarification, or would like the question repeated.

Do you have any questions?

Okay, I have several questions I would like to ask you to discuss. If you are ready, we will begin.

First I would like to ask you some background questions about your teaching experience and the school you are teaching at.

Background Information

- How long have you been teaching, and what grades have you taught?
- How long have you been at this school, and what grades/subjects do you currently teach?
- What is your credential status/what certification do you hold? CLAD/BCLAD?

Program

- What is the English Language Arts program like at your school?
- Is there a cross-classroom curriculum? If so, who is the publisher?
- How long has this program been adopted at your school?
- What program did you use previously?
- Did you receive training to implement the program? If so, how long?

English Language Learners

- How many ELs do you teach—per class, altogether?
- What levels of English proficiency are represented among your EL population (e.g., beginning, intermediate, etc.)?
- What primary languages are represented?
- Are any students literate in their primary language? How do you know?

Instructional Strategies

- What are some specific strategies that you use with your ELs?
- Where did you learn these strategies (e.g., professional development/training, mentor teacher, teacher preparation program, curriculum guide, etc.)?
- How often do you modify strategies to accommodate the range of proficiency levels among your ELs?
- Which specific strategies have been most successful with low proficiency ELs? Moderate proficiency ELs?

Building Background

- How do you prepare for building background?

Group/Pair Work

- What kinds of opportunities for interaction do you provide that encourage elaborative responses from ELs?
- Under what circumstances do you provide such opportunities?
- How often do you have students work in groups or pairs?
- Describe the last time you had students work in groups or pairs.

Institute

- Which activities/strategies have you used from the institute so far?
- What have been the easiest to implement? The most difficult? Why?
-

Academic Language

- Are you familiar with the term "academic language"? [definition: Academic language refers to the written and oral language that students need in order to perform specific tasks within classroom and disciplinary contexts (Stevens, Butler, and Castellon-Wellington, 2000). It is distinct in its form, function, and register.]
- How do you prepare ELs to process academic language?
- Give an example of how you have your EL students carry out oral and written tasks that require the following: comparison/contrast, description, explanation, definition.

Attitudes and Beliefs

- In your opinion, what is the role of the teacher in meeting the needs of ELs in English Language Arts? In preparing ELs for academic language?
- In your opinion, what do you think contributes to the success of ELs in English Language Arts? What do you perceive as obstacles to success in English Language Arts?

Finally, I would like to ask you some questions about the lesson I observed in your classroom on (whatever day the observation was). First, please tell me a little about the class.

Student Demographics

- What is the ethnic breakdown?
- What is the range of reading/writing skills in English? Range of English proficiency represented?

Please describe the lesson that I just observed.

Lesson

- What was the content objective of the lesson? Language objective?
- Was the lesson adapted at all for different groups of students (e.g., high/low achieving, high/low proficiency EL, etc.)?
- Was the lesson typical or atypical of other lessons you have conducted this year? In what way(s)?
- Is today's lesson part of a unit? If so, where is it situated in the development of the unit?
- Is it part of a larger curricular program or did you design it yourself?
- What is the purpose of the overall instructional unit?
- What information do you have that students did or did not achieve the lesson's goals? How will you use this information for future planning?

Self-Evaluation

- Based on what you planned, how do you feel the lesson went?
- What do you see as your strengths for today?
- What would you do differently next time?

Is there anything I haven't asked about your experiences or the lesson that I observed that you would like to tell me about?

Thank you again for your participation in this interview and for letting me observe your lesson.

CONSEQUENCES TEACHER INTERVIEW PROTOCOL II

Interviewer: **READ VERBATIM TO INTERVIEWEE**

Thank you for agreeing to participate in this interview. The purpose of this interview is to learn about your experiences with the Language Arts Performance Assignment (LAPA), as well as gain some background information about the lesson I observed in your classroom. This interview will take approximately 20 minutes.

Your name will not be used in the final transcription of this interview, and any identifying information will be deleted from the final transcript. No one will read the transcript other than the members of the UCLA Evaluation Team, and all contents of this interview are confidential.

You may choose not to answer a question, and/or choose to terminate the interview if you do not feel comfortable. Participation in this study is strictly voluntary. The decision not to participate will in no way affect your relationship with the school, district, or with UCLA.

If there are sensitive issues that you would like to discuss, but prefer for them not to be entered into the transcription, the interviewer will honor your request and that portion of your interview will not be transcribed. You may also ask for clarification at any time if you don't understand a question, would like clarification, or would like the question repeated.

Do you have any questions?

Okay, I have several questions I would like to ask you to discuss. If you are ready, we will begin.

First I would like to ask you some background questions about your teaching experience and the school you are teaching at.

Instructional Strategies

- What are some specific strategies that you use with your ELs?
- Where did you learn these strategies (e.g., professional development/training, mentor teacher, teacher preparation program, curriculum guide, etc.)?
- How often do you modify strategies to accommodate the range of proficiency levels among your ELs?
- Which specific strategies have been most successful with low proficiency ELs? Moderate proficiency ELs?

Building Background

- How do you prepare for building background?

Group/Pair Work

- What kinds of opportunities for interaction do you provide that encourage elaborative responses from ELs?
- Under what circumstances do you provide such opportunities?
- How often do you have students work in groups or pairs?
- Describe the last time you had students work in groups or pairs.

LAPA

- How have you modified your instruction to provide ELs with instructional opportunities that will assist them in the completion of the LAPA?
- How have you prepared students for the LAPA?
- What knowledge and skills do you believe are critical to performing well on the LAPA?
- Are these skills attainable for ELs? What proficiency levels?

Academic Language

- Are you familiar with the term "academic language"? [definition: Academic language refers to the written and oral language that students need in order to perform specific tasks within classroom and disciplinary contexts (Stevens, Butler, and Castellon-Wellington, 2000). It is distinct in its form, function, and register.]
- How do you prepare ELs to process academic language?
- Give an example of how you have your EL students carry out oral and written tasks that require the following: comparison/contrast, description, explanation, definition.

Attitudes and Beliefs

- In your opinion, what is the role of the teacher in meeting the needs of ELs in English Language Arts? In preparing ELs for academic language?
- In your opinion, what do you think contributes to the success of ELs in English Language Arts? What do you perceive as obstacles to success in English Language Arts?

Finally, I would like to ask you some questions about the lesson I observed in your classroom on (whatever day the observation was). First, please tell me a little about the class.

Student Demographics

- What is the ethnic breakdown?
- What is the range of reading/writing skills in English? Range of English proficiency represented?

Please describe the lesson that I just observed.

Lesson

- What was the content objective of the lesson? Language objective?
- Was the lesson adapted at all for different groups of students (e.g., high/low achieving, high/low proficiency EL, etc.)?
- Was the lesson typical or atypical of other lessons you have conducted this year? In what way(s)?
- Is today's lesson part of a unit? If so, where is it situated in the development of the unit?
- Is it part of a larger curricular program or did you design it yourself?
- What is the purpose of the overall instructional unit?
- What information do you have that students did or did not achieve the lesson's goals? How will you use this information for future planning?

Self-Evaluation

- Based on what you planned, how do you feel the lesson went?
- What do you see as your strengths for today?
- What would you do differently next time?

Is there anything I haven't asked about your experiences or the lesson that I observed that you would like to tell me about?

Thank you again for your participation in this interview and for letting me observe your lesson.

APPENDIX H

Teacher Interview Scoring Rubric

Degree of Functional Grammar Implementation

Teacher Interview Scoring Rubric
Degree of Functional Grammar Implementation

General Description

To understand the degree to which teachers exposed students to functional grammar concepts while preparing them to write for the Language Arts Performance Assignment (LAPA), and during the LAPA writing process itself (exposure could include teacher instruction, student assignments and activities) we rated the teacher's level of functional grammar implementation based on their responses to interview questions. In particular, we looked at teachers' responses to the questions of: *"How have you prepared students for the LAPA",* and *"How have you modified your instruction to provide ELLs with instructional opportunities that will assist them in the completion of the LAPA"*. Functional grammar implementation scores, was conducted using a four-point scale ranging from 0 to 3. A score of "0" represented no evidence of functional grammar implementation; a score of "1" represented minimal implementation; a score of "2" represented moderate implementation; and finally, a score of "3" represented strong implementation. These scores are further described below. Implementation judgments were based on two dimensions, depth and breadth.

Instructional Depth

Depth refers to how much detail (based on the teacher's description) was provided on the specific function grammar concept targeted for instruction, and how much it was integrated into writing activities and expectations. For example, in a description of instruction targeted at expanded noun phrases, we considered whether instruction focused only in adding adjectives to their nouns, or whether instruction also included other strategies for noun expansion such as the use of prepositional phrases and embedded clauses. For each functional grammar concept, we also examined whether teachers explained the function of that concept in its textual context (e.g., providing description, cohesion, and/or evaluation to the text), as well as whether a teacher addressed particular problems in student writing that the functional grammar strategy was meant to remedy. Finally, we considered whether teachers attempted to integrate the functional grammar concepts into their expectations of student writing and practices.

Instructional Breadth

Breadth refers to whether a variety of functional grammar concepts were targeted in instruction as well as the duration of such instruction. We considered whether the concepts were taught in a progressive nature (if concepts built upon one another) to expand the students' knowledge and skills of functional grammar and academic writing. We also looked at whether functional grammar was an important aspect of LAPA preparation overall.

Score Point Descriptors

Score Point 0: No Implementation

In the description of LAPA preparation, no evidence of functional grammar implementation was found.

Score Point 1: Minimal Implementation

Depth: Teacher descriptions of implementation in relation to depth included references to functional grammar which lacked detail or specificity. Often the teacher only referenced the idea of functional grammar in general or functional grammar worksheets without mentioning instructional purpose or strategy, desired outcome or effect.

R: "I've been teaching the little mini-lessons that we have."
Q: "The functional grammar?"
R: "The functional grammar, right. I've used those."

Breadth: Descriptions of implementation indicated minimal attention given to teaching functional grammar concepts. A few concepts may have been introduced but not followed up or integrated into the classroom writing practices. The knowledge and skills used to prepare students for the LAPA included a minimal number of functional grammar concepts.

R: "So I enjoyed that part [LAPA preparation]. It gave me a chance to work on the writing aspect, the spelling, and all of that. I went over as much as I could. On certain days I would have spelling. I did everything that I could to help them in their writing."
Q: "Did you find that any of the functional grammar was helpful with that part?"
R: "In many cases it was, but then again some have been struggling for a while on it, so they didn't quite grasp it as some of the others did."

Score Point 2: Moderate Implementation

Description of implementation indicated somewhat weakly in one of the two dimensions (breadth or depth) but exhibited more strongly in the other (medium to strong implementation). The teacher may have instructed students in a variety of functional grammar concepts over time (thus considered strong in breadth) but did not communicate significant details of that implementation beyond listing the names of the functional grammar concepts (thus considered minimal in depth). Conversely, the teacher may have instructed students in depth on one or two concepts, but did not provide instruction on a variety of concepts over time. This teacher would have received a rating of two. The teacher who conducted medium implementation in both dimensions also received a two.

Depth: moderately detailed description of implementation with references to specific functional grammar concepts was provided. Descriptions included a moderate amount of information on how concepts were taught to students and may have mentioned instructional purpose and strategy.

R: "Then the second day [of LAPA prep] is when we did the character pyramids where they had to give more than one example of their heroic qualities. The next day we tried to take the information from those character pyramids and put them into more elaborative type of sentences and responses."

Breadth: Description of implementation included instruction for students in a few different functional grammar concepts that may have been taught in a progressive nature. The teacher attempted to integrate concepts into writing expectations and practices. Functional grammar was an important aspect of LAPA preparation though not necessarily the primary focus.

R: "I use the LAPA book [functional grammar mini-lessons by CRESST]. It's very useful because it breaks [the concepts] down and gives you worksheets. 'Today we are going to work on this.' The objective is stated there. So I worked on this, and I also take other information on other worksheets, and try to implement those into the lesson. Then I build on that. So the first step is this. The next step is based on the information I'm giving and based on my background."

Score Point 3: Strong Implementation

Description of implementation demonstrated strong implementation of functional grammar in at least one of the two dimensions, with the weaker implemented dimension no less than moderate level. Strong implementation in both dimensions also received a three rating.

Depth: Description of implementation provided a highly detailed description of the manner in which functional grammar concepts were implemented instructionally. Descriptions included the particular writing problems the strategies were intended to remedy and/or the level of writing the students were expected to achieve through use of the specific strategy. The teacher may have spoken about the positive effect this type of instruction has had on student performance and/or student attitude towards writing.

R: "They knew we were really working on how to create flow in sentences. That's what I called [it], how to make our sentences connected, and how to make them better and more interesting. So we had been working on a lot of things like adding the prepositional phrases, expanding our nouns, and taking our simple sentences and making them bigger."

Breadth: responses indicated consistent implementation over the preparation period with instruction clearly targeted on many concepts. The teacher represented functional grammar as the primary instructional focus of LAPA preparation, with concepts building upon one another. The teacher consistently embedded the functional grammar concepts into his/her writing instruction and performance expectations.

R: "We worked specifically on descriptive phrases, nominalization…specifically on prepositional [phrases]. [We] did the same thing, took the basic paragraph and then built on that. The idea of trying to state their opinion without saying, "In my opinion," trying to be more scholarly."

APPENDIX I

Teacher Interview Scoring Rubric

Degree of ELL Process Implementation

Teacher Interview Scoring Rubric
Degree of ELL Process Implementation

General Description
To understand the degree to which teachers provided ELL students the opportunity to access the writing curriculum while preparing to write for the Language Arts Performance Assignment (LAPA), and during the LAPA writing process itself, we rated teacher quality and quantity of ELL specific instructional strategies based on their responses to interview questions. In particular, we looked at teacher responses to the following questions. *"How have you prepared students for the LAPA",* and *"How have you modified your instruction to provide ELLs with instructional opportunities that will assist them in the completion of the LAPA"*. Rating of teachers' classroom practices in relation to how well they provided ELLs access to the curriculum was conducted using a four-point scale ranging from 0 to 3. A score of "0" represented no evidence of ELL specific strategies; a score of "1" represented minimal evidence of ELL specific strategies; a score of "2" represented moderate evidence; and finally, a score of "3" represented strong evidence. These scores are further described below. Implementation judgments were based on two dimensions, depth and breadth.

Instructional Depth
Depth refers to how much detail was provided (based on the teacher's description) on ELL specific instructional strategies and related student activities, and how much these teacher/student practices were integrated into the writing process itself. For example, in a description of instruction targeted at writing revision, we looked at whether the teacher supported ELL learning through strategies such as modeling the process first, conducting small group interactions, providing peer support, and breaking concepts down into manageable units. We also consider whether these strategies were aligned with appropriately expectations of student performance.

Instructional Breadth
Breadth refers to whether a variety of ELL specific strategies informed instructional practices, and if these strategies were implemented over time. We considered whether these strategies were utilized in a progressive nature to scaffold the students' knowledge and skills of academic writing. We also looked at whether these strategies represented an important aspect of LAPA preparation overall.

Score Point Descriptors

Score Point 0: No use of ELL specific strategies
In the description of LAPA preparation, no evidence of ELL specific strategies was found.

Score Point 1: Minimal use of ELL specific strategies
Depth: Teacher descriptions of instruction in relation to depth included references to ELL specific strategies which lacked detail or specificity. Often the teacher only referenced a strategy by name without mentioning instructional purpose, desired outcome or effect.

R: "It takes time. I've put the quote up there. I don't know what you mean about doing anything differently. The thing that I did differently today was put them with partners."

Breadth: Descriptions of instruction indicated minimal attention given to adapting the delivery of content for accessibility to ELL students. A few strategies may have been provided to heighten ELL comprehension but were not followed up or integrated into the classroom writing practices. The strategies used to prepare students for the LAPA included a minimal number specific to ELL learning needs.

Q: "How have you modified your instruction to provide your English Language Learners with opportunities that will assist them in completing the performance assignment?"

R: "When you say "modify", I think of making changes for a specific reason. I really have my expectations, and regardless of the language barriers, I sort of go back [to them]. If I go back to where they're at, and bring in their prior knowledge, and they understand what's being taught, I really don't have to modify it, but there is more explaining, and explaining with examples until I feel that they've got it."

Score Point 2: Moderate use of ELL specific strategies

Description of instruction indicated somewhat weakly in one of the two dimensions (breadth or depth) but exhibited more strongly in the other (medium to strong implementation of ELL strategies). The teacher may have instructed students using a variety of ELL strategies over time (thus considered strong in breadth) but did not communicate significant details of that instruction beyond listing the names of the ELL strategies (thus considered minimal in depth). Conversely, the teacher may have used one strategy well over time, but did not provide students with a variety of instructional strategies to meet different learning modalities. This teacher would have received a rating of two. The teacher who used a moderate number of strategies in a moderately integrated fashion also received a two.

Depth: Moderately detailed descriptions of instruction with references to ELL specific strategies was provided. Descriptions included a moderate amount of information on how strategies were taught to students and may have mentioned instructional purpose.

Q: "How have you modified your instruction to provide English Language Learners with opportunities to help them complete the performance assignments?"

R: "I shorten things for them, and I go with a lot of graphic organizers, and show a lot of examples for them to see. I don't expect the same type of language abilities, I can't. So most of all, it's going to be a little bit shorter."

Breadth: Description of instruction included use of a few different ELL specific strategies that may have been used in a progressive nature. The teacher attempted to integrate strategies into writing expectations and practices. ELL strategies were an important vehicle for engaging students in LAPA preparation though not necessarily used consistently.

Q: "What specific strategies have been most successful with your low proficiency English Language Learners?"
R: "Visuals really help for English Language Learners, if I break it down for them in their language."
Q: "Do you mean in simple English or Spanish?"
R: "Either simple English or in Spanish. Most of the time I have to do it in Spanish depending on the curriculum. Outlines work really well for them such as the graphic organizers, the outline…. I do a lot of group work with my class because I feel that they can build on each other's experience."

Score Point 3: Strong Use of ELL specific strategies

Description of ELL specific instructional strategies demonstrated strongly in at least one of the two dimensions, with the weaker dimension no less than moderate level. Strong implementation in both dimensions also received a three rating.

Depth: Description of ELL specific strategies provided a highly detailed description of the manner in which they were used to enhance ELL comprehension of lesson content, and provide avenues for ELL students to improve writing skills. The teacher may have spoken about the positive effect this type of instruction has had on student performance and/or student attitude towards writing.

Q: "And how have you modified your instruction to provide English Language Learners with opportunities to help them complete the performance assignments?"

R: Since the training and we were told what the performance assignment was going to be, we've focused on asking them to keep going back to the concept of what is a hero? With every story we've encountered in the High Point since then, I would ask them, "Is there a hero in this story?" And if it's not a story that's appropriate to that, "Why isn't there a hero?" And just reinforcing the idea so that thread didn't get dropped along the way. And also, in selecting additional materials for them to read, going through and I deliberately went and found historical fiction, realistic historical fiction that I told them was true, non-fiction, and then a myth. And all three, comparing the heroes. At the same time we were doing High Point, and it happened to coincide with a selection that had a story about an earthquake and some people were helping, but they weren't really acting heroically. I asked the kids, 'Are there heroes in this story?' And they decided there weren't. I was really pleased that their sophisticated thinking culled the fact that, yeah they were nice and helping, but they weren't really doing anything that caused them to be giving of themselves."

Breadth: responses indicated consistent implementation over the preparation period with instruction clearly utilizing many ELL instructional strategies. The teacher represented ELL

strategies as the primary instructional vehicle of LAPA preparation. The teacher consistently embedded the strategies into his/her writing instruction and performance expectations.

Q: "How have you modified your instruction to provide English Language Learners with opportunities to help them complete the performance assignments?

R: "The biggest thing I think is doing less at a time. Doing one strategy, like today it's just descriptive phrases. And then…that improves the work. And the next day doing nominalization. I think in that respect I've gone slower, and I've been satisfied with that.

Q: "Was the lesson adapted at all for different groups of students, such as high or low achieving or high or low ELL proficiency?"

R: "It was adopted in the sense that one of the stories they could have picked was a four page legend, it's very short. They could have picked *Beowulf*, which was much longer, and the vocabulary was more sophisticated, or they could have picked *The Giver*, which was a full novel, but pretty basic vocabulary, and we did read it in class, even though it's been a while. So they had a variety of the difficulty level of the writing they could choose to work with and the complexity of the story. So in that way, they self-selected. The GATE students, I hope, will use a lot of the skills. I'm hoping that the ELL students will use some of them. And if I was grading it myself, I would look for their own growth.

APPENDIX J

Pre & Post Institute Teacher Survey

UCLA/CRESST STRATEGIES FOR SUPPORTING EL WRITING

PRE-INSTITUTE SURVEY

*Please answer the following questions frankly. Responses to these questions will be used to improve the institute and training materials. Be assured that the answers you provide will only be reviewed and used for these purposes by the UCLA National Center for Research on Evaluation, Standards, and Student Testing (CRESST). This information will **not** be used for evaluation of teacher performance.*

Name (Last, First, MI)

Complete School Name District

EDUCATIONAL BACKGROUND

1. Including this year, what is the total number of years you have taught?

   a. Total teaching: _____ years
   b. At this school: _____ years
   c. At Grade 6 or 7: _____ years
   d. English Language arts: __ years (Write "0" if not applicable)
   e. Sheltered English: __years (Write "0" if not applicable)

2. What type of teaching credential do you possess? (Check all that apply.)

   a. O Elementary
   b. O CLAD
   c. O BCLAD
   d. O Multi – Subject Clear
   e. O Single Subject Clear, specify subject ⇨ _____
   f. O Emergency, specify type ⇨ _____
   g. O District Intern
   h. O I am working toward my credential, specify type ⇨ _____

INSTITUTE CONTENT

3. Please rate your level of understanding of the following: (Mark only one per item.)

	None at all	A small amount	A moderate amount	A large amount	A very large amount
a. English language grammatical structures	1	2	3	4	5
b. Long noun phrases to increase sentence variety in a piece of writing	1	2	3	4	5
c. Vocabulary that reveals analysis/interpretations of characters or situations	1	2	3	4	5
d. Verb choices that signal analysis of a character or situation	1	2	3	4	5
e. Grammatical structures that build cohesion at the sentence level	1	2	3	4	5
f. Grammatical structures that signal point of view	1	2	3	4	5
g. Grammatical structures that generate an impersonal tone	1	2	3	4	5
h. Misconceptions about English Language Development	1	2	3	4	5

i. Misconceptions about literacy instruction for English language learners	1	2	3	4	5
j. Misconceptions about overall English language learner achievement	1	2	3	4	5

INSTITUTE PROCESS

4. How prepared do you currently feel to engage in the following activities? (Mark only one per item.)

	Not at all		Somewhat		A great extent	
a. Identifying a student's writing strengths and weaknesses from a written assignment	1	2	3	4	5	6
b. Providing detailed feedback regarding writing performance	1	2	3	4	5	6
c. Using information gleaned from a written assignment to develop an instructional plan that targets needed areas of improvement	1	2	3	4	5	6
d. Developing English language learners' writing skills	1	2	3	4	5	6
e. Developing English language learners' skills in literary analysis	1	2	3	4	5	6

5. How prepared do you currently feel to carry out the following activities: (Mark only one per item.)

	None at all		Somewhat		A great extent	
a. Provide feedback to students on their understanding of English language grammar	1	2	3	4	5	6
b. Provide feedback to students on their understanding of content work (e.g., key vocabulary, literary elements, etc.,)	1	2	3	4	5	6
c. Provide feedback to students on their writing organizational skills	1	2	3	4	5	6
d. Utilize small interactive groups to create opportunities for students to discuss ideas, texts, and concepts	1	2	3	4	5	6
e. Utilize the readers' workshop approach to teaching reading	1	2	3	4	5	6
f. Utilize the writers' workshop approach to teaching writing	1	2	3	4	5	6

INSTRUCTIONAL PRACTICES

6. During the last school year, how often did you provide explicit instruction in the following areas to develop students' writing? (Mark only one per item.)

	Never	Less than once per week	Once per week	2-4 times per week	Once per day	2 or more times per day
a. English language grammatical structures	1	2	3	4	5	6
b. Long noun phrases to increase sentence variety in a piece of writing	1	2	3	4	5	6
c. Vocabulary that reveals analysis/interpretations of characters or situations	1	2	3	4	5	6
d. Verb choices that signal analysis of a character or situation	1	2	3	4	5	6
e. Grammatical structures that build cohesion at the sentence level	1	2	3	4	5	6
f. Grammatical structures that signal point of view	1	2	3	4	5	6
g. Grammatical structures that generate an impersonal tone	1	2	3	4	5	6

7. During the last school year, how often did you incorporate the following sheltered instructional strategies into your lessons? (Mark only one per item.)

	Never	Less than once per week	Once per week	2-4 times per week	Once per day	2 or more times per day
a. Use supplementary materials (e.g., graphs, models, visuals) to clarify and illustrate concepts	1	2	3	4	5	6
b. Adapt content (e.g., text, assignments) to all levels of students' English proficiency	1	2	3	4	5	6
c. Explicitly link new concepts to students' background experiences and past learning	1	2	3	4	5	6
d. Adapt speech to accommodate the range of students' English proficiency levels	1	2	3	4	5	6
e. Use scaffolding techniques to support students' understanding	1	2	3	4	5	6
f. Provide opportunities for student-to-teacher interactions that encourage elaborated responses	1	2	3	4	5	6
g. Provide opportunities for student-to-student interactions that encourage elaborated responses	1	2	3	4	5	6
h. Provide activities for students to practice using new skills, concepts, and vocabulary	1	2	3	4	5	6
i. Provide opportunities for students to clarify key concepts in primary language	1	2	3	4	5	6

8. Please indicate the extent to which you agree with each of the following statements: (Mark only one per item.)

	Strongly disagree	Disagree	Disagree slightly more than agree	Agree slightly more than disagree	Agree	Strongly Agree
a. It is too time consuming to investigate students' background.	1	2	3	4	5	6
b. It is important to make every effort to adapt all lessons for the language diversity in the classroom.	1	2	3	4	5	6
c. English language learners need to have a good grasp of English grammar before instructing them on literary analysis.	1	2	3	4	5	6
d. Differentiating instruction is not necessary for English language learners because all students are language learners.	1	2	3	4	5	6
e. Teachers cannot possibly be expected to investigate every student's background.	1	2	3	4	5	6
f. English language learners learn best through direct instruction of isolated skills.	1	2	3	4	5	6
g. It is too difficult to differentiate instruction at the middle school level.	1	2	3	4	5	6
h. Literary analysis is beyond the level of ability of English language learners.	1	2	3	4	5	6
i. Teachers should make a strong effort to include topics in their instruction that are relevant to the experiences of English language learners.	1	2	3	4	5	6
j. Development of academic language content is the primary goal of ELD instruction.	1	2	3	4	5	6

8. Please indicate the extent to which you agree with each of the following statements: (Mark only one per item.)

	Strongly disagree	Disagree	Disagree slightly more than agree	Agree slightly more than disagree	Agree	Strongly Agree
k. Development of the linguistic structures of English (e.g., appropriate grammatical forms) is the primary goal of ELD instruction.	1	2	3	4	5	6
l. It is very difficult to provide a challenging curriculum to students because of the wide variation in English proficiency.	1	2	3	4	5	6
m. The curriculum I use is adaptable to students with wide variation in English proficiency.	1	2	3	4	5	6
n. Teachers should assign the topics students write about most of the time.	1	2	3	4	5	6
o. Writing practice should primarily be provided to students through homework assignments.	1	2	3	4	5	6
p. Students should begin a new piece of writing every time they write.	1	2	3	4	5	6
q. Students learn to write by completing many writing assignments without much feedback from teachers.	1	2	3	4	5	6
r. Students should be allowed to choose their own topics for writing most of the time.	1	2	3	4	5	6
s. Students need a lot of time to write and confer with teachers and peers in school.	1	2	3	4	5	6
t. Students need to be explicitly taught how to write.	1	2	3	4	5	6

UCLA/CRESST STRATEGIES FOR SUPPORTING EL WRITING
POST-INSTITUTE SURVEY

Please answer the following questions frankly. Responses to these questions will be used to improve the institute and training materials. Be assured that the answers you provide will only be reviewed and used for these purposes by the National Center for Research on Evaluation, Standards, and Student Testing (CRESST). This information will ***not*** *be used for evaluation of teacher performance.*

Name (Last, First, MI)

Complete School Name District

INSTITUTE CONTENT

1. To what extent did this training session increase your knowledge of the following: (Mark only one per item.)

	None at all	A small amount	A moderate amount	A large amount	A very large amount
a. English language grammatical structures	1	2	3	4	5
b. Long noun phrases to increase sentence variety in a piece of writing	1	2	3	4	5
c. Vocabulary that reveals analysis/interpretations of characters or situations	1	2	3	4	5
d. Verb choices that signal analysis of a character or situation	1	2	3	4	5
e. Grammatical structures that build cohesion at the sentence level	1	2	3	4	5
f. Grammatical structures that signal point of view	1	2	3	4	5
g. Grammatical structures that generate an impersonal tone	1	2	3	4	5
h. Misconceptions about English Language Development	1	2	3	4	5
i. Misconceptions about literacy instruction for English language learners	1	2	3	4	5
j. Misconceptions about overall English language learner achievement	1	2	3	4	5

INSTITUTE PROCESS

2. How well do you feel the training session prepared you to engage in the following activities?

	Not at all		Somewhat		A great extent	
a. Identifying a student's writing strengths and weaknesses from a written assignment	1	2	3	4	5	6
b. Providing detailed feedback regarding writing performance	1	2	3	4	5	6
c. Using information gleaned from a written assignment to develop an instructional plan that targets needed areas of improvement	1	2	3	4	5	6
d. Developing English language learners' writing skills	1	2	3	4	5	6
e. Developing English language learners' skills in literary analysis	1	2	3	4	5	6

3. How well you feel the training session prepared you to carry out the following activities:

(Mark only one per item.)	None at all		Somewhat		A great extent	
a. Providing regular feedback to students on their understanding of English language grammar	1	2	3	4	5	6
b. Providing regular feedback to students on their understanding of content work (e.g., key vocabulary, literary elements, etc.,)	1	2	3	4	5	6
c. Providing regular feedback to students on their writing organizational skills	1	2	3	4	5	6
d. Utilizing small interactive groups to create opportunities for students to discuss ideas, texts, and concepts	1	2	3	4	5	6
e. Utilizing the readers' workshop approach to teaching reading	1	2	3	4	5	6
f. Utilizing the writers' workshop approach to teaching writing	1	2	3	4	5	6

INSTRUCTIONAL PRACTICES

4. During the remaining part of this school year, how often will you provide explicit instruction in the following areas to help encourage students' writing development? (Mark only one per item.)

	Never	Less than once per week	Once per week	2-4 times per week	Once per day	2 or more times per day
a. English language grammatical structures	1	2	3	4	5	6
b. Long noun phrases to increase sentence variety in a piece of writing	1	2	3	4	5	6
c. Vocabulary that reveals analysis/interpretations of characters or situations	1	2	3	4	5	6
d. Verb choices that signal analysis of a character or situation	1	2	3	4	5	6
e. Grammatical structures that build cohesion at the sentence level	1	2	3	4	5	6
f. Grammatical structures that signal point of view	1	2	3	4	5	6
g. Grammatical structures that generate an impersonal tone	1	2	3	4	5	6

5. During the next school year, how often will you incorporate the following sheltered instructional strategies into your lessons? (Mark only one per item.)

	Never	Less than once per week	Once per week	2-4 times per week	Once per day	2 or more times per day
a. Use supplementary materials (e.g., graphs, models, visuals) to clarify and illustrate concepts	1	2	3	4	5	6
b. Adapt content (e.g., text, assignments) to all levels of students' English proficiency	1	2	3	4	5	6
c. Explicitly link new concepts to students' background experiences and past learning	1	2	3	4	5	6
d. Adapt speech to accommodate the range of students' English proficiency levels	1	2	3	4	5	6
e. Use scaffolding techniques to support students' understanding	1	2	3	4	5	6
f. Provide opportunities for student-to-teacher interactions that encourage elaborated responses	1	2	3	4	5	6
g. Provide opportunities for student-to-student interactions that encourage elaborated responses	1	2	3	4	5	6
h. Provide activities for students to practice using new skills, concepts, and vocabulary	1	2	3	4	5	6
i. Provide opportunities for students to clarify key concepts in primary language	1	2	3	4	5	6

6. Please indicate the extent to which you agree with each of the following statements:

(Mark only one per item.)	Strongly disagree	Disagree	Disagree slightly more than agree	Agree slightly more than disagree	Agree	Strongly Agree
a. It is too time consuming to investigate students' background.	1	2	3	4	5	6
b. It is important to make every effort to adapt all lessons for the language diversity in the classroom.	1	2	3	4	5	6
c. English language learners need to have a good grasp of English grammar before instructing them on literary analysis.	1	2	3	4	5	6
d. Differentiating instruction is not necessary for English language learners because all students are language learners.	1	2	3	4	5	6
e. Teachers cannot possibly be expected to investigate every student's background.	1	2	3	4	5	6
f. English language learners learn best through direct instruction of isolated skills.	1	2	3	4	5	6
g. It is too difficult to differentiate instruction at the middle school level.	1	2	3	4	5	6
h. Literary analysis is beyond the level of ability of English language learners.	1	2	3	4	5	6
i. Teachers should make a strong effort to include topics in their instruction that are relevant to the experiences of English language learners.	1	2	3	4	5	6
j. Development of academic content is the primary goal of ELD instruction.	1	2	3	4	5	6
k. Development of the linguistic structures of English (e.g., appropriate grammatical forms) is the primary goal of ELD instruction.	1	2	3	4	5	6
l. It is very difficult to provide a challenging curriculum to students because of the wide variation in English proficiency.	1	2	3	4	5	6
m. The curriculum I use is adaptable to students with wide variation in English proficiency.	1	2	3	4	5	6

Overall Satisfaction and Feedback

7. To what extent will this training influence your future instruction? (Mark only one.)

Not at all			Some		A great extent
1	2	3	4	5	6

8. How satisfied are you of the training process? (Mark only one.)

Not at all			Somewhat		Extremely satisfied
1	2	3	4	5	6

Please comment:

9. What did you like most about the training? Please explain.

10. What did you like least about the training? Please explain.