

**Consequences and Validity of Performance
Assessment for English Language Learners:
Conceptualizing & Developing Teachers' Expertise
in Academic Language**

CSE Technical Report 700

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Correction in Authorship: Versions of this report prior to September 30, 2006 contained a cover page listing Christy Kim Boscardin and Zenaida Aguirre-Muñoz as authors, with a full list of correct authors on a subsequent page. This error was corrected on September 29th. The complete list of contributing authors is: Zenaida Aguirre- Muñoz, Jae Eun Parks, Aprile Benner, Anastasia Amabisca, and Christy Kim Boscardin.

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Project 4.3 Consequences and Validity of Assessment

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**CONSEQUENCES AND VALIDITY OF
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ACADEMIC LANGUAGE**

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Abstract

The purpose of this report is to provide the theoretical rationale for the approach to academic language that was adopted to meet the research goals of the second phase of this project as well as to report on the results from the pilot training program that was developed to create the conditions under which varying levels of direct instruction in academic language occurs. The challenge was to find an approach for the instruction of academic language that would serve a dual purpose. The first purpose was aimed at building teachers' understanding of the key components of academic language to improve their instructional decision-making. The second goal was to provide teachers with tools for providing ELLs with direct instruction on academic language and thereby support their English language development. After careful review of the literature, we found that the functional linguistic approach to language development best met these goals. We developed training modules on writing instruction based on the functional linguistic approach, as it has the strongest potential in providing explicit instruction to support ELL student writing development. Overall, teachers responded positively to the functional linguistic approach and were optimistic about its potential for improving ELL writing development. Responses to the pre-and post institute survey revealed that teachers felt better prepared in evaluating student writing from a functional linguistic perspective as well as in developing instructional plans that targeted specific learning needs.

Introduction

In our previous report we investigated the Opportunity to Learn (OTL) variables that positively impact student performance (Boscardin, Aguirre-Munoz, Chinen, Leon, & Shin, 2003). We also investigated potential differences in the impact of OTL on performance between English language learners (ELLs) and non-ELLs. Although the

findings were informative in understanding the achievement of ELLs, our OTL instrument did not contain items that reflected exposure to instruction on academic language, which generally refers to linguistic proficiencies required for subject matter learning (Stevens, Butler, & Castellon-Wellington, 2000; Wong Fillmore & Snow, 2000). Since most educators regard academic language proficiency as paramount for the educational success of ELLs (August & Hakuta, 1997), it is necessary to define academic language in order to investigate the extent to which instruction in academic language impacts achievement of ELLs. One particular focus of this phase of the work is to examine the relationship between opportunities to acquire academic language and ELL achievement.

The purpose of this report is to provide the theoretical rationale for the approach to academic language that was adopted to meet the research goals of the second phase of the project as well as to report on the results from the pilot training program that was developed to create the conditions under which varying levels of direct instruction in academic language occurs. To achieve this goal, this report describes the process taken in identifying a comprehensive approach to operationalizing academic language in a manner that facilitates its presentation to teachers and students, as well as moves beyond an exclusive emphasis on content and technical vocabulary.

This report first presents the initial work conducted by the research team that sets the context of our approach to examining academic language. What follows is a brief review of the literature regarding functional linguistic analysis, which provides the basis of our operationalization of academic language. Next, the methodology of the pilot study on the effectiveness of the training is described followed by the results of this study. We conclude with a discussion of the lessons learned, including our plan in the refinement of the training materials as well as our operationalization of academic language content.

Conceptualizing Academic Language: Preliminary Investigations

Literature review. 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 literature emphasized the need to increase student's understanding of academic language but falls short in providing operational 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.

Qualitative investigation. After in-depth analysis of the performance data from our baseline data (Boscardin et al., 2003), we identified three teachers that were particularly successful with ELLs, as indicated by their scores on the performance assessment and responses to the OTL instrument utilized in the first phase of the project. Classroom observations and structured interviews were conducted to identify content coverage patterns and instructional processes that would inform the development of academic language OTL variables in the next phase of the project. Based on our findings from this small-scale qualitative, exploratory investigation, we discovered that while these teachers were providing students with instructional processes that supported students' understanding of the key content, such as building on students background experiences, using first language support, and total physical response, no direct instruction in academic writing was provided beyond tools for developing global organization and strategies for developing content vocabulary. These observations were consistent with our previous findings indicating that reading and discussing literature were important indicators of ELL performance, however, a differential impact between ELLs and non-ELLs in writing instruction existed. That is, we found that as teachers' reports of time spent on writing responses to literature increased, the performance gap between ELLs and non-ELLs also increased.

Drawing on both the quantitative findings from our previous report and the trends from the qualitative study, we concluded that focusing on writing instruction was a critical need. We also believe that this focus would have the greatest likelihood to yield desired variability in performance to permit a systematic investigation of the impact of instruction on academic language on ELL achievement. To begin this work, we analyzed student responses to identify areas of weakness to address in the teacher training for the second phase of this research study. After reviewing approximately 150 sixth-grade student responses to the performance assessment,¹ we found that most students internalized the global essay structure, yet their scores were far short of meeting minimum standards of proficiency in writing. Student responses reflected students' understanding that written responses to literature included an introduction,

¹ A detailed description of the performance assessment can be found in Boscardin, C. K., Aguirre-Munoz, Z., Chinen, M., Leon, S., & Shin, H. S. (2003). *Consequences and validity of performance assessment for English language learners: Assessing OTL in grade 6 language arts*. CRESST technical report.

body, and conclusion, as well as their lack of understanding of appropriate language use for a character study, specifically how each of the paragraphs should be constructed to meet the requirements of a character study written in age-appropriate academic language.

Considering these trends in student performance, the challenge was to find an approach for the instruction of academic language that would serve a dual purpose. The first purpose was aimed at building teachers' understanding of the key components of academic language to improve their instructional decision-making. The second goal was to provide teachers with tools for providing ELLs with direct instruction on academic language and thereby support their English language development. Further, in order to maximize the effectiveness of the training and the desired effects on student performance, both of these goals needed to be achieved in the context of the type of writing required by the performance assessment that would be the outcome measure of the larger study—response to literature, namely, characterization. After careful review of the literature, we found that the functional linguistic approach to language development best met these goals. Other definitions of academic language (e.g., Chamot & O'Malley, 1994; Cummins, 1980; Stevens, Butler, & Castellon-Wellington, 2000) were limited in their potential for outlining a comprehensive instructional plan that included more options than simply building ELLs' background knowledge of content and technical vocabulary. Building vocabulary is necessary but insufficient for either achieving deeper levels of reading comprehension and developing ELL understanding of academic language (August & Hakuta, 1997; Schleppegrell, 2001; Wong Fillmore & Snow, 2000). Further, the sociocultural and sociolinguistic approaches (e.g., Heath, 1983; Solomon & Rhodes, 1995) were limited in that they do not offer a clear and structured approach to the instruction of academic language, nor to the analysis of student writing. An approach was needed that provided direct guidance for analysis of language use in texts containing academic language as well as in the analysis of student writing in a manner that more directly fosters the development of their academic language development in English.

The next section outlines briefly the central tenets of this approach including general findings from research that applied the functional linguistic approach to the examination of student writing.

The Functional Linguistic Approach

Functional linguistics (FL) offers a framework for examining different systems of language that provide resources for creating meaning (Halliday, 1975; 1994). That is, the functional linguistic approach to language views knowing a language as “being sensitive to its probabilities rather than possessing absolute knowledge of grammaticality” (Kilpert, 2003, p. 187). Further, functional linguistics 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. He states:

...a study of language development from an [FL] 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 an essential sociolinguistic competence required for accomplishing a variety of academic tasks in various contexts including the school setting. Thus, the notion that writing for academic purposes is intrinsically a social practice underscores the need for systematic investigations of explicit instruction of what is conventionally regarded as appropriate academic language.

Influenced by Hallidayan systemic functional linguistics, 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. Working from the premise that grammar is a resource for making meaning (rather than a set of discrete rules), some educational linguists have identified linguistic features 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.

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, described below, as well as, incorporating noun phrases and prepositional phrases, to name a few.

Other features of written academic discourse have been identified by various linguists. Christie (2002), for example, characterized "abstractness" (i.e., use of abstract nouns), "technicality" (i.e., use of technical language) and "grammatical metaphor" (i.e., presentation of information using incongruent, atypical expressions characteristic of academic discourse) as features of advanced academic writing. 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 of nominalization 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 local level (i.e., at the paragraph level). Effective transitions can be achieved by the deployment of nominalization in the theme position which often conveys information expressed in a previous clause. This enhances a smooth transition from one clause to another by creating an intricate linkage between clauses. In the example above, *expanded* and *expansion* creates 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 (2002) and Schleppegrell (2001, 2003) 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 an 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.

The functional linguistic approach has also been applied in analyzing student writing performance such as description (Schleppegrell, 1998; 2003), narratives (Christie, 1986), scientific essays (Christie, 1986; Schleppegrell, 2003), literary analysis and opinionated texts (Christie, 1986; Christie, 2002). 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 in theme position (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 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, 2002) shows that often missing from student writing is their own interpretation of characters and events. This characteristic is revealed by 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.

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, i.e., teaching discrete grammatical points rather than how different grammatical systems create a 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.

On the basis of Christie (1986, 2002), Schleppegrell (1998, 2001; 2003), and other corpus-based² functional studies of language (Biber, Johansson, Leech, Conrad, & Finegan, 1999; Celce-Murcia & Larsen-Freeman, 1999), as well as our own analysis of English learners' character studies, and the results reported in our aforementioned report, we developed training modules on writing instruction based on the functional linguistic approach, as it has the strongest potential in providing explicit instruction to support ELL student writing development. Further, Mary J. Schleppegrell, a leading scholar in this area, reviewed the modules that address functional linguistic concepts for appropriateness of content prior to the pilot training session. While instructional strategies for supporting ELLs' reading comprehension were included in the training, the emphasis was placed on writing instruction from a functional linguistic approach. The main purposes of the pilot training study were to:

1. Build teacher understanding of language patterns within the functional linguistic perspective,
2. Determine whether teachers can be trained to examine student text within this perspective, as well as
3. Identify areas in the training materials that needed additional refinement.

Methodology

Participants

Twelve teachers representing five school districts in the southern California region participated in the week-long training. The level of teaching experience ranged from 1 year to 35 years with an average of 9 years. Nine teachers were fully credentialed and three teachers were working toward their credential. Ten of the teachers were either trained in English as a Second Language (ESL) or sheltered instruction.

Training Materials

The training was comprised of four modules. As mentioned earlier, the first three address the functional linguistic process, and the final module addresses instructional strategies. Each of the four modules begins with a teacher quote that suggests a

² Corpus-based studies refers to a large collection of spoken or written discourse used for linguistic analysis.

misconception about the writing process, or English learners in general. 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 have been shown to occur when teachers shed misconceptions about ELLs (Milk, Mercado, & Sapiens, 1992; Richardson, Anders, Tidwell, & Lloyd, 1991). The following is a description of each of the modules.

Module 1 introduces three main perspectives for analyzing written discourse (i.e., how language presents information in the text, how language builds the text structure, and how language conveys the writer's point-of-view in the text) as well as the critical functional grammatical concepts including theme, participants, and the classification of verbs. This module also touches 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 starts with a review of linguistic and cognitive demands for written responses to literature suggested by the California Academic Standards and Framework for English Language Arts. This is followed by a comprehensive linguistic analysis of character studies from a functional linguistic perspective in order to identify specific linguistic features that correspond to the suggested cognitive and linguistic demands. The focus on the character study is important because it is the type of task that will be used as the outcome variable in the larger study. Particularly important in a character study is the introduction of the key characters of the story as well as the tracking of these characters to ensure that information is provided that builds the characterization or description of them. This module also reexamines the theme analysis in more depth to make explicit linguistic resources for developing cohesion. To illustrate how the character study relates to other academic genres, linguistic characteristics of academic writing in the same general areas introduced in Module 1 are also discussed.

Module 3 presents prevailing linguistic features of a character study found in English language learners' writing samples and identifies specific areas of instructional support. In this module, teachers begin to develop general plans for targeting ELL writing development.

Module 4 presents strategies for developing ELLs' literary analysis. Recognizing the need to address how teachers approach the instruction of literary analysis, this module includes two instructional techniques that have been shown to be particularly effective with ELLs—the instructional conversation and the readers'/writers' workshop.

The instructional conversation (IC) approach 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 (Genesse, Lindhom-Leary, Saudners, & Christian, 2004; Goldenberg, 1992Saunders & 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.

The readers'/writers' workshop(R/WW) is a combination of the writing workshop and the reading workshop. In the reading workshop, students have time to read in class, choices of books or other materials, access to books and materials, and opportunities for interaction. The writing workshop provides students with linguistic and stylistic resources available to real world authors (Graves, 1983). The rationale for including these concepts in the training was to provide teachers with instructional processes that support ELL development of literary critique (Allen, 1995).

In addition to the modules, the training materials also include a selection of articles and book chapters pertaining to FL, 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.

Training Process

The first day of the training institute began with a brief introduction about the goals of the project. Minimal details were provided in terms of the content to maintain the authenticity of the pre-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. After these discussions, the modules were introduced.

On each of the first four days of the five-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 on the application of the concepts or strategies learned, were integrated into the presentation of the material. The first three modules targeted the concepts of the functional linguistic approach, and the fourth module addressed instructional strategies, namely the instructional conversation approach, as well as the readers' and writers' workshop. The final day of training was dedicated to completion of the post training survey and the post-test as well as the development of lessons based on the functional linguistic concepts.

At the end of the institute, teachers were thanked for their participation and provided with certificates of completion. CRESST researchers compiled these lessons, 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 try out the lessons that were developed and contact CRESST researchers regarding their successes or concerns.

Instruments

To evaluate the overall effectiveness of the institute, pre- and post-institute surveys as well as pre- and post-tests were conducted. Due to the limitations of the small sample size, *t*-tests were not calculated on the responses to these instruments.

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.

The level of experience category was designed for descriptive purposes only and addressed the number of years teaching, credential status, and training in 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 in providing instruction in reading and writing as well as in analyzing student writing.

Items on 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 to 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 the latter three (preparation, instructional strategies, and attitudes). Further, the post-institute survey asked teachers to reflect on how the training impacted their level of preparation, and 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.

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 can apply the FL 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, as well as 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 two 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—to determine the total number of comments used for calculating percentages. 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 teachers' understanding of the specific features of students' writing.

Results of Pilot Training

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

Preparation. Responses to the survey instruments suggest that teachers perceived the training as effective in preparing teachers in examining and teaching writing. As indicated by Table 1, teachers reported increased levels of understanding in writing development, analyzing student writing to inform instruction, providing feedback to

students, and developing ELL writing development. For two items (misconceptions of English language development and sheltered instructional approaches) the means were lower on the post-test, both of which were not the focus of the training.³

Table 1.
Pre-and Post-Test Means for Preparation

Level of understanding of the following:			
	Pre-Test	Post-Test	N
a. Key second language writing development patterns	2.70	3.30	10
b. The relationship between first and second language writing proficiency	2.67	3.00	9
c. The patterns of language to create meaning in context	2.60	4.00	10
d. Misconceptions of English language development	3.20	2.90	10
Preparation to engage in the following activities:			
a. Identifying a student's writing strengths and weaknesses from a written assignment	3.80	4.50	10
b. Providing detailed feedback regarding writing performance	3.67	4.33	9
c. Using information gleaned from a written assignment to develop an instructional plan that targets needed areas of improvement	3.40	4.30	10
d. Developing English language learners' writing skills	2.70	3.90	10
e. Developing English language learners' skills in literary analysis	3.00	3.64	11
f. Utilizing the Sheltered Instruction/(SDAIE) approach to teaching	3.27	2.73	11

Assessment and instructional processes. The results are mixed for the items in the assessment and instructional processes category. The direction of the means, presented

³ While the misconceptions of the writing process and the ELL population were addressed in the discussions of the teacher quotes, misconceptions about English language development, specifically, was not addressed, nor instructional strategies for sheltered instruction.

in Table 2, suggests that the training increased teachers' comfort levels in assessment processes—an area that was targeted extensively by the training. However, most of the means for the instructional strategies items were the same or lower on the post-institute survey, which suggests that the training was not effective in building teachers' comfort level in ELL-specific strategies, other than the instructional conversation or writers' workshop. This finding is consistent with the focus of the training content. First, only one of the five days was devoted to ELL-specific strategies, thus less impact would be expected, particularly for the strategies that were not targeted by the training. The instructional strategies module focused on the instructional conversation and readers'/writers' workshop, and it is important to note that the means reflecting the content of these strategies are in the expected direction. Further, the great majority of the means on the pre-institute survey items pertaining to ELL-specific strategies were high, indicating that teachers initially reported engaging in high levels of ELL-specific instructional strategies, making it more difficult to observe a meaningful difference on the post-institute survey.

Table 2

Pre-and Post-Test Means for Assessment and Instructional Processes

Comfort in engaging in each of the following with English Learners:			
	Pre-Test	Post-Test	N
a. Assessing understanding of key vocabulary and content concepts	4.10	3.70	10
b. Providing regular feedback to students on language and content work	3.90	4.80	10
c. Evaluating student understanding of the functional aspects of English grammar	3.60	4.70	10
d. Utilizing the instructional conversation approach to teaching	4.00	4.36	11
e. Utilizing the readers' workshop approach to teaching reading	3.82	3.27	11
f. Utilizing the writers' workshop approach to teaching writing	4.00	4.18	11
Frequency with which the following sheltered instructional strategies are incorporated in lessons:			
a. Use supplementary materials (e.g., graphs, models, visuals) to make lessons clear and meaningful	5.10	5.20	10
b. Adapt content (e.g., text, assignments) to all levels of students' English proficiency	4.63	5.13	8
c. Explicitly link new concepts to students' background experiences and past learning	4.88	5.13	8
d. Use speech appropriate for students' English proficiency	5.11	5.78	9
e. Use scaffolding techniques to support students' understanding	5.11	5.22	9
f. Provide opportunities for student/teacher and student/student interactions that encourage elaborated responses	4.60	4.70	10
h. Provide activities for students to apply content and knowledge	4.60	4.70	10
i. Provide opportunities for students to clarify key concepts in primary language	3.43	3.57	7

Overall satisfaction and feedback. With regards to instructional application, 67% of the teachers indicated that the institute would greatly influence their future instruction, while 83.3% felt satisfied to extremely satisfied with the training in general.

Teachers reported that they most appreciated the small group/pair work and the time allotted for discussion and lesson planning. They also indicated that the content itself was interesting and had the potential to be useful in the classroom. Especially helpful was the use of authentic student writing samples that reflected their own students' work.

Teachers were particularly critical of the new linguistic jargon introduced in the institute (e.g., theme/rheme, nominalization, lexical density, etc.) and expressed a need for more simplified terminology that they could more easily incorporate into their instruction without confusing students. Teachers also confessed to feeling frustrated during the initial days of the institute because the FL content was not translated to instructional application until the fourth day of the training.

Analysis of Student Writing

When discussing the strengths of the student essays, as Table 3 shows, teacher responses to both pre- and post-tests most frequently identified comprehension (37% and 35%, respectively). In particular, they praised students' use of examples from the text. They also praised students' use of analysis and development. Teachers' comments related to other strengths of the student essays varied over time, with a general trend toward identifying more strengths related to training session topics on the post-test. For example, the percentage of comments related to paragraph and essay structure, a topic not targeted by the training, declined from 35% to 28%, while statements related to verb phrases, a component of the training program, increased from 0% to 6%.

Table 3

What Are Three Strengths of This Student Essay?

	Pre-Test (%)	Post-Test (%)
Comprehension —includes examples, analysis, development; understands story	37.0	35.3
Paragraph/essay structure —uses essay format; includes topic sentences, topic and concluding paragraphs; understands paragraphing	34.6	27.5
Sentence structure —uses basic sentence structure, sentence variation	6.2	5.9
Mechanics & Vocabulary —spelling, vocabulary	4.9	7.8
Organization —is organized	2.5	3.9
Point of view —clear	1.2	2.0
Transitions —integrates transitions; paragraph flow	1.2	2.0
Verb phrases —includes varying verb types	0.0	5.9
Noun phrases —use of nouns	0.0	2.0

Note. Percentages based on the total number of responses related to strengths ($N=81$ pre-test, $N=51$ post-test)

The most striking differences in teachers' pre- and post-test responses relate to the problems they identified in the student essays. As seen in Table 4 and consistent with responses to essay strengths, the problems teachers identified on the post-test are generally reflective of training content. Overall, the percentage of comments highlighting problems with mechanics (e.g., misspellings, fragmented sentences) decreased from 58% to 25%. In contrast, statements related to several functional grammar topics became more frequent from pre- to post-test, including weaknesses with noun phrases (need for nominalization, expanded noun phrases), verb phrases (need for variation in verb type, overuse of some verb types), and theme/rheme (need for connections between theme of sentence with rheme of previous sentence).

Table 4.

What Are Three Problems With This Student Essay?

Problems with...	Pre-Test (%)	Post-Test (%)
Mechanics & Vocabulary —spelling, fragments, capitalization, punctuation, run-ons, verb tense, grammar, vocabulary	58.1	24.6
Paragraph/essay structure —topic sentences, topic and concluding paragraphs, paragraphing; need to use thesis statement, essay format	12.8	12.3
Comprehension —need more examples, more development; too much retelling	10.3	8.8
Sentence structure —need more variation	6.0	7.0
Noun phrases —need expanded noun phrases, nominalization; problems with pronouns	5.1	12.3
Organization —off topic; problems with organization	5.1	8.8
Transitions —paragraph flow	0.9	1.8
Point of view	0.0	1.8
Theme/rheme —need connections across sentences; need theme variation	0.0	12.3
Verb phrases —too many action, attributive verbs; need variation in verb type	0.0	8.8

Note. Percentages based on the total number of responses related to feedback ($N=117$ pre-test, $N=57$ post-test)

In examining teachers' statements concerning the types of feedback they would provide to students, Table 5 illustrates the changes in responses that occurred from pre-test to post-test. In general, a trend emerged in which teacher responses moved from offering vague (e.g., develop ideas more) to more specific (e.g., expand noun phrases) feedback. For example, teacher comments related to more general topics, such as the writing process and essay and paragraph structure, declined from pre- to post-test. However, teachers' responses related to more specific feedback topics—noun phrases, verb phrases, theme/rheme, and point of view—increased over the two time points.

Table 5

What Kind of Feedback Would You Provide This Student With Regards to the Writing and the Content?

	Pre-Test (%)	Post-Test (%)
Comprehension —include more examples, more development, deeper analysis; review story	27.0	28.6
Mechanics & Vocabulary —target capitalization, punctuation, spelling, grammar, verb tense, run-ons, fragments	19.8	22.6
Writing process —recommend peer editing, brainstorming, reading work aloud	18.9	5.6
Paragraph/essay structure —focus on essay format, paragraphing, topic and concluding paragraphs	15.3	5.6
Sentence structure —need more variation, complex sentences	6.3	5.6
Noun phrases —focus on pronouns; expand noun phrases	2.7	9.5
Organization —is/is not focused, organized	2.7	2.4
Transitions —focus on paragraph flow, use of “because”	1.8	2.4
Point of view —target use of first person, infusion of opinions	0.9	3.6
Theme/rheme —need connections across sentences	0.0	7.1
Verb phrases —need variation in verb types	0.0	6.0

Note. Percentages based on the total number of responses related to feedback ($N=111$ pre-test, $N=84$ post-test)

Consistent with the findings related to student strengths and weaknesses, the types of comments teachers provided related to methods for targeting further instruction changed over time, seemingly reflecting teachers’ learning from the training sessions. As Table 6 shows, teachers more frequently remarked that they would focus on mechanics or the writing process in the pre-test. In contrast, the percentage of comments related to targeting instruction on noun phrases increased dramatically, from 5% at pre-test to 36% on the post-test. Responses regarding a heightened focus on theme/rheme and verb phrase variation also increased from pre- to post-test.

Table 6

What Would You Do to Target Instruction for This Student?

	Pre-Test (%)	Post-Test (%)
Mechanics & Vocabulary —target capitalization, spelling, fragments, grammar	35.4	15.9
Writing process —recommend self editing, reading work aloud; teach the writing process	20.0	2.3
Sentence structure —focus on sentence structure	12.3	11.4
Comprehension —teach how to integrate more examples, more development	12.3	9.1
Paragraph/essay structure —teach essay format, topic paragraph development	10.8	6.8
Noun phrases —focus on pronoun use, nominalization, and expanded noun phrases	4.6	36.4
Organization —how to stay on topic	1.5	2.4
Theme/rheme —teach how to connect themes to rhemes across sentences	0.0	9.1
Verb phrases —need variation in verb types	0.0	2.3

Note. Percentages based on the total number of responses related to instruction recommendations ($N=65$ pre-test, $N=44$ post-test)

Conclusions and Lessons Learned

In order to meet the goals of the second phase of this project, a comprehensive functional linguistic approach to academic language was utilized for the teacher training. Teachers responded positively to the functional linguistic approach and were optimistic about its potential for improving ELL writing development. Responses to the pre-and post institute survey revealed that teachers felt better prepared in evaluating student writing from a functional linguistic perspective as well as in developing instructional plans that targeted specific learning needs. Differences in teacher performance between the pre-and post-tests provide evidence that the institute was effective in training teachers how to examine student writing from this perspective. Specifically, teachers were better able at identifying concrete weaknesses in student

writing that generated targeted instruction aimed at improving student understanding of a written character study. These findings suggest that as a result of the training, teachers developed a greater understanding of students' academic writing development as well as methods for fostering further development.

Despite the overall success of the training institute, these findings and anecdotal information from teachers also indicated how the training could be strengthened. Below, we highlight lessons learned that would be addressed in the subsequent iteration of the content of the institute materials, the training process, and the operationalization of the development of the academic language construct for inclusion in the OTL instrument.

Institute Content

- **Eliminate all unnecessary jargon.** A consistent complaint from teachers was that the training materials contained an excessive amount of jargon (e.g., lexical density) that made understanding the new concepts difficult. The pilot provided us with insights into what can be eliminated or modified.
- **Begin with an example of the type of writing and instructional process that teachers would be working towards in the institute.** Another comment teachers made on the first day of the institute was that they were not clear on "where they were going." Since the approach to grammar contrasts greatly from their previous experience with grammar instruction, an effort was made to clarify by providing sample revision lessons that distinguish FL from what most teachers are currently doing.
- **Embed instructional applications throughout the training.** To facilitate teachers' understanding of how the functional linguistic approach can be incorporated into their instructional repertoires, mini-lessons, developed by pilot teachers and CRESST staff, based on the functional linguistic approach will be discussed as the concepts are introduced.
- **Develop further the instructional strategies module.** It was clear that teachers were not as familiar with the instructional strategies introduced in Module 4 as we expected. Additional information for conducting these strategies was incorporated, including specific connections between the instructional

strategies and the functional linguistic approach. A general approach for providing revision instruction and feedback was also included.

- **Rearrange the order of the modules.** Teachers expressed that it would be more helpful to introduce the instructional strategies module before the general trends in student writing. Doing so would provide them with tools for engaging in the activities in the module that focuses on student writing.
- **Address the five-paragraph essay structure and its limitations.** While analyzing the student writing samples, and through the course of the training, we discovered that teachers rely heavily on the five-paragraph essay format to help students generate academic texts. Since this format does not exist in the academic texts students are exposed to on a daily basis, we augmented Module 2 to address pitfalls of the five-paragraph essay and strategies for guiding students through analyzing the global structure of model academic texts from which to base their own essay organization.

Training Process

- **Provide more opportunities to examine the types of clauses and how to identify them.** Half of the teachers in the pilot did not know how to identify clauses, which made it difficult to identify clausal units for the functional linguistic analysis. As such, we identified a need for developing clearer explanations of the different kinds of clauses, as well as a need for more practice activities to increase understanding.
- **Provide more opportunities to practice the FL-based lessons.** Teachers seemed to understand the general orientation of the functional linguistics-based lessons, but expressed a need to actually practice the implementation of the lessons before taking them to their own classrooms.
- **Provide more opportunities for teachers to strengthen their knowledge of functional linguistic concepts.** Particularly difficult for teachers was the theme/rheme concept. Additional activities were developed to support teachers' understanding in this area.

OTL Instrument Definition: Content Coverage

- **Operationalize academic language in terms of the key concepts in functional linguistics.** Based on the functional linguistic literature and after listening to how teachers were articulating the ideas that were presented in the modules as well as observing which concepts teachers seemed to grasp, the operationalization for purposes of the OTL instrument was finalized. The following are the key areas that are the target of the OTL instrument:
 - Noun phrases to increase sentence variety
 - Vocabulary to describe and analyze characters or situations
 - Verb choices that signal analysis of characters or situations
 - Grammatical structures that build cohesion at the sentence level
 - Grammatical structures that signal point of view at the sentence level
 - Grammatical structures that generate an impersonal tone at the sentence level
- **Include content coverage items in the teacher expertise scale.** Because teachers' level of expertise in the content to be taught is related to content coverage, it is necessary to investigate teachers' level of expertise in academic language concepts. The expertise scale was augmented to include the areas identified above.

OTL Instrument Definition: Instructional Processes

- **Include processes that reflect the instructional conversation and readers' and writers' workshop method.** Due to the extant literature on the effectiveness of these strategies, we anticipate that it may have an impact on student performance and thus be worth including in the OTL instrument.

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