

National Writing Project  
Local Site Research Initiative  
Comprehensive Report  
LSRI Cohort V

North Star of Texas Writing Project

**Culturally Mediated Writing Instruction for Adolescent English Language Learners**

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## EXECUTIVE SUMMARY

One of the greatest challenges facing U.S. middle and high school teachers is the need to improve academic success among English language learner (ELL) students. Both the high school dropout rate and the college-enrollment rate provide compelling evidence of this need. This report documents one attempt to meet this challenge, a National Writing Project advanced institute focused on improving academic writing among adolescent English learners. The institute engaged teacher-consultants in exploring and implementing “culturally mediated writing instruction” (CMWI), a set of research-based principles and practices. The ultimate goal was to improve students’ academic writing, but this report also documents the diverse and sometimes-surprising ways that these teachers integrated CMWI into their classrooms.

In year 1—studied through a descriptive cross-case analysis—six teacher-researchers from one middle school and two high schools in north Texas participated in the project. Their students were diverse: some were relatively new to the United States, and some had attended U.S. schools since kindergarten. Most of the English learners were Hispanic, but other language groups were also represented. Data included pre/post writing samples, classroom observations, teacher interviews, and teachers’ written reflections. The teachers each chose a target class, resulting in a study total of approximately 45 middle school and 70 high school students. The writing samples were scored using NWP’s Analytic Writing Continuum. Although gains were noted in each writing area across all grade levels, the only statistically significant gain was among middle school students’ use of vocabulary to express their ideas (*diction*)  $t = 2.83$ ,  $df = 24$ ,  $p = .009$ . The analysis of qualitative data in year 1 also yielded refinements to CMWI principles and practices, which were integrated into the year 2 professional development institute.

In year 2 the research followed a mixed-methods, quasi-experimental design. Nine middle and high school teacher-researchers from four Texas Writing Project sites (Central Texas, North Star of Texas, Sabal Palms, and West Texas) participated; seven of the teacher-researchers were new to the project. Student diversity was similar to that in year 1. Research questions again focused on CMWI’s influence on student writing and also on how teachers integrated the CMWI approach (including how their use of CMWI practices changed over time). To answer our questions about the influence of this approach, the design included a comparison of student writing scores from program teachers’ classrooms with those from matched cases. Data sources again included pre/post writing samples, classroom observations, teacher interviews, and teachers’ written reflections. Qualitative data were analyzed inductively; input from the teacher-researchers helped refine the emerging categories.

Findings from a quantitative analysis of year 2 data show that CMWI was indeed effective for middle and high school students, as evidenced by gains in all areas of the Analytic Writing Continuum for 56 middle school students and 22 high school students learning English as a second language. The quantitative analysis of the student writing samples provides initial evidence that CMWI was effective in increasing middle and high school students’ writing proficiency. For middle school students, improvement was statistically significant in the areas of *holistic score, content, and structure*, for high school students, in *stance, diction, conventions*.

The most salient finding from the year 2 qualitative analysis is that program teachers orchestrated complex and responsive instructional support, or *mediation*, both for individuals and

groups of students. That is, teachers—through differentiated instructional decisions— built what we call an “instructional landscape” and invited students to appropriate selected language and literacy practices to navigate that landscape. Specifically, findings point to four interdependent dimensions of learning that teachers prioritized in various ways: social and cultural capital, academic content knowledge, thinking strategies across sign systems, and linguistic knowledge. By providing different degrees and kinds of support for individuals and groups in these areas, teachers mediated language and literacy learning according to their judgment about what each student needed. They knew when to move in with stronger support and when to step back to provide more opportunities for independence. In the process, not only did teachers recognize multiple diversities among their students, but they also attempted to build on students’ identities, knowledge, and skills, always with the goal of moving toward academic success. The teachers recognized a range of cultural resources for mediation (in addition to ethnicity): they used popular culture, technology, and students’ personal interests as opportunities for mediation. No five-step scheme, computer program, or scripted lesson plan could offer such individualized and “just-in-time” mediation for language and literacy learning. Thus, by portraying effective teaching as a complex process of mediation, this study contributes to the understanding of how teachers can effectively differentiate instruction in order to meet the particular needs of diverse learners in each of four dimensions comprising language and literacy learning.

Finally, the findings in this report suggest that there were unique patterns in the ways each teacher appropriated CMWI practices. These patterns were influenced both by external constraints and by teachers’ beliefs about what would most benefit their students. Future research could productively focus on the interaction between these constraints/beliefs and teachers’ options for decision making. It could also productively focus on the extent to which CMWI helps students appropriate language and literacy practices that will lead to academic success in the ever-changing national and global environment they will be entering after high school.

## **INTRODUCTION**

At the fall 2006 Texas state network meeting, NWP site leaders and teacher-consultants explored possibilities for collaborative research. We talked about issues we all face, and our collective concern about our adolescent English learners quickly surfaced. Most of our students were achieving academic success, but, like many teachers, we were frustrated that our growing numbers of English learners did not progress rapidly enough. Frankly, we were puzzled about how to help them build their proficiency in spoken and written English so that they might be successful in high school and beyond. This concern triggered the work described in this report.

Our review of the literature showed us that we were not alone in our frustration. The number of English learners is growing rapidly in Texas and across the country. In the 2003–04 school year, ELL services were provided to 3.8 million students (11% of all U.S. students). In Texas alone, 0.7 million students (16% of all students) received ELL services (National Center for Education Statistics 2000). The Texas ELL population more than doubled between 1991 and 2004 (U.S. Department of Education 2008). In Texas middle and high schools in 2007–08, more than a quarter of a million students were identified as “limited English proficient” (Texas Education Agency 2008).

Although Texas elementary English learners receive various types of assistance (e.g., inclusion, pullout, dual-language, sheltered, and bilingual programs), middle and high school students are not supported in the same way. They are typically moved into mainstream classes as quickly as possible. Although some secondary schools provide sheltered instruction, particularly for English/ language arts, most secondary teachers have insufficient training in supporting English language learners. According to the National Center for Education Statistics, during 1999–2000 only 26% of teachers received training specific to the needs of English learners; 68% of teachers who received such training participated in only one to eight hours of professional development (2000). Clearly, the need for research and professional development related to the general instructional needs of these middle and high school students is urgent (Short and Fitzsimmons 2007; Gándara, Maxwell-Jolly, and Driscoll 2005).

More specifically, there is a need for research on academic writing instruction for these students. For example, researchers claim that “ELLs in U.S. high schools receive insufficient writing instruction in ESL, insufficient oral and structural language support in mainstream English, and insufficient support in bridging the gaps” (Panofsky et al. 2005). Likewise, *The Neglected “R”: The Need for a Writing Revolution* the 2003 report of the National Commission on Writing in America’s Schools and Colleges—points to the “special needs of English-language learners” (34) as they struggle to achieve academic success.

## **FOCUS AND BACKGROUND OF THE PROGRAM**

Since our 2006 conversation at the NWP state network meeting, we have built a professional development initiative designed to support teacher-consultants as they plan and implement academic writing instruction to support sixth through twelfth grade English learners.

### **Program Description**

This project was framed as an advanced institute, with follow-up support during the subsequent school year. All teachers in the institute had participated in an invitational summer institute and thus were teacher-consultants. The purpose of the advanced institute was to engage teacher-consultants in exploring a set of principles and practices we call “culturally mediated writing instruction” (CMWI). CMWI consists of a set of principles and practices that we gleaned from published research, with the goal of improving writing instruction for adolescent English learners. Funding from the NWP Local Sites Research Initiative (Cohort V) made the research on this professional development initiative possible.

### *Major activities and central features*

CMWI is an inquiry-based instructional approach focusing on improving students’ academic writing. Grounded in the research base summarized below, this approach includes five central features (no priority is implied in this listing):

1. The use of reading/writing workshop practices to engage students as readers and authors;
2. An emphasis on authentic messages to real audiences about significant and relevant issues;
3. An inquiry cycle to guide curricular and instructional decisions;
4. A focus on academic writing proficiency; and
5. An understanding that teachers must mediate individual and group learning according to students’ unique backgrounds, strengths, and needs.

CMWI is not a formulaic approach, but a set of principles and practices that can inform a teacher’s instructional decisions. Teachers can use these principles and practices to provide appropriate support for all their students, but particularly for their students who are learning English as their second (or third, etc.) language. The findings from years 1 and 2 of this project inform our understanding, and future institutes will integrate these findings into this evolving instructional framework.

In year 1 we focused on the work of six teacher-consultants who participated in the three-day advanced institute during summer 2007. Our goal was to document and analyze how they integrated the principles and practices into their instruction and to describe each teacher’s patterns of implementation. Findings from year 1 helped us prepare for year 2, when we planned to study the influences of this professional development in classrooms around the state.

In year 2 we worked with nine teacher-consultants from four Writing Project sites across Texas. That advanced institute, in summer 2008, was five days long with online follow-up and three face-to-face meetings during 2008–09. The principles and practices in the second year were consistent with those of the first year but included refinements based on year 1 data analysis.

## **REVIEW OF LITERATURE: HOW AND WHY CMWI CAN IMPROVE THE ACADEMIC WRITING OF ADOLESCENT ENGLISH LANGUAGE LEARNERS**

CMWI is consistent with what Ann M. Johns (1997) calls a socioliterate approach to writing instruction, one in which learners are “constantly involved in research into texts, roles, and contexts and into the strategies that they employ in completing literacy tasks in specific

situations” (15). CMWI invites students to take an inquiry stance toward issues of interest and significance. This approach offers a rich and dynamic landscape of literacy tasks, routines, materials, and dialogues that motivate students to inquire. Further, CMWI sets up a series of guided inquiry cycles through which students write to authentic audiences for significant purposes. As students engage in these inquiry cycles, the teacher observes them carefully, supporting and mediating for the group and individuals as appropriate. Four bodies of knowledge inform CMWI: classrooms as “communities of practice” (Lave and Wenger 1991), pedagogy built on inquiry (Burke 2010; Wilhelm 2007), cultural identities as “funds of knowledge” (Moll et al., 1992), and instruction mediated in response to students’ individual needs (Vygotsky 1978).

First, we look to the research on communities of practice. In a CMWI classroom, we can identify Etienne Wenger’s (1998) three features of a community of practice:

- mutual engagement (reading, writing, and dialogue about significant issues)
- joint enterprise or shared work (the work of becoming effective writers)
- shared repertoire of practices (classroom procedures and practices).

Teachers who work toward developing such a community among their students often frame their literacy instruction as the work of a particular discourse community—like authors in general or, more specifically, memoirists, investigative reporters, etc. (Edelsky 2003). In a community of practice, all members, regardless of skill level, are considered to be active participants. Ana Christina DaSilva Iddings (2005) found that English learners developed a strong sense of solidarity and friendship, and adapted well to an English-dominant classroom, when they were part of such a community. Although Jean Lave and Wenger conducted their research with adults outside schools, we find the concept of a community of practice to be a useful way to talk about the collaborative work and learning that takes place in a classroom of writers and readers. This sociocultural approach emphasizes learners as apprentices (Rogoff 1990; Tharp and Gallimore 1988) and literacy learning as the appropriation of cultural practices. The vehicle for appropriation is semiotic mediation (John-Steiner and Mahn 1996; Wells 2007), the use of meaning-making tools to support learning. In CMWI classrooms, teachers’ actions, comments, and instructional tools provide semiotic mediation.

Second, CMWI principles and practices are grounded in research that views inquiry as integral to literacy instruction and to writing instruction in particular (e.g., Short, Harste, and Burke 1996; Wilhelm 2007). Progressive educators have long argued for instruction framed as advocated inquiry into topics of interest and relevance to students. Through inquiry, learners maintain their curiosity and take risks as they seek answers to significant questions. Although the teacher guides the process, questions should ultimately be generated by students, allowing them to “own” the learning. A long tradition of instructional approaches supports an inquiry stance (e.g., Ballenger 2009; Dewey 1910; Freire 1993; Shor 1997; Short, Harste, and Burke 1996; Wells 1999; Wiggins and McTighe 2005; Wink 2010). Mihaly Csikszentmihalyi (1990) suggests that an individual who generates his or her own questions, and is able to pursue answers to those questions, experiences a sense of “flow.” Flow also allows the individual to have a positive outlook on learning and passionately seek answers and understandings. Therefore, students who work within this framework, supported by teachers who incorporate CMWI principles and practices in their teaching repertoire, are more likely to develop into lifelong learners.

Third, CMWI draws from sociocultural perspectives that view cultural identities as “funds of knowledge” (Moll et al., 1992). Teachers who embrace CMWI practices acknowledge and value the cultural identities of their students (Ball, 2006; Gay, 2000; Ladson-Billings 1997; Lee 2007; Nieto 1992). In their choice of reading materials and their options for inquiry topics, teachers can make it possible for students to use their cultural funds of knowledge, including ethnicity but not limited to that one aspect of culture. Cultural connections that frame students’ identities beyond ethnicity include their knowledge as males and females, adolescents, technology natives, athletes, dancers, musicians, and so on. In traditional classrooms where these identities may be marginalized, students may suffer from institutional discrimination, which privileges the knowledge and cultural practices of a particular ethnicity, linguistic background, socioeconomic level, race, gender, or religion. Research shows that a mismatch between home and school practices may be a source of school failure (Cazden 1988; Heath 1983; Michaels 1981; Taylor and Dorsey-Gaines 1988). By viewing students’ cultural and experiential backgrounds as “funds of knowledge,” teachers who use CMWI can better support students’ success in school.

Fourth, CMWI acknowledges the complexity of the instructional decisions that each teacher must make in response to students. Similar to the goal of differentiated instruction (DI), teachers who employ the tenets of CMWI seek “to maximize student growth and individual success” (Tomlinson and Allan 2000, 4) by knowing the particular array of each learner’s strengths and targets for learning. Student growth for English learners, of course, must attend to the research on second language acquisition and literacy development (e.g., Collier 1995; Cummings 1979; Krashen 2002; Lantolf 2006; Thompson 2004). This knowledge is essential in order to vary the degrees of support and the type of mediation to meet these needs. Thus, the teacher must know his or her students well. Knowing students well is not simply a matter of knowing them one-on-one but also knowing how they engage in a range of tasks. Effective mediation includes gradual release of responsibility (Pearson and Gallagher 1983) to students, but it also includes the use of the “just right” tool that will match students’ current understanding. In other words, Vygotsky’s (1978) concept of the zone of proximal development is central to his concept of mediation.

## **CMWI PRINCIPLES AND PRACTICES**

Drawing on these four areas of research, we developed a list of CMWI principles and practices for the 2007 advanced institute; the list was then refined by the year 1 teachers as they read and discussed the research literature and their students’ responses to CMWI in their classes.

### **CMWI Principles**

These principles guide the decisions of the CMWI teachers whose work is reported below:

- We learn best with opportunities for social interaction.
- We need opportunities to make strategic choices about what, when, or where we learn and how we read and write.
- We respond positively to purposeful, challenging tasks.
- We learn best when we can make connections to our lives.

- Our sense of identity influences our academic learning.
- We learn more easily and powerfully within a community of practice.
- We learn best (as individuals and communities) through inquiry.
- We need to participate in dialogue and critique about significant issues (including our own learning strategies).

### **CMWI Practices**

CMWI principles suggest that teachers should invite students to engage in various combinations of these research-based practices:

- Inquire, write, and publish together.
- Build on experiences outside and inside school.
- Activate prior knowledge and provide common experiences.
- Frame significant issues as springboards for inquiry.
- Demonstrate strategies and resources for inquiry, reading, and writing.
- Provide time for individual and shared investigation.
- Respond and revise, and provide feedback for revision and editing.
- Publish and present findings in a variety of ways/media/genre to a range of real audiences.
- Invite further inquiry and opportunities to apply what we have learned.
- Assess learners' strengths and targets for growth; use assessment data to inform instruction.
- Use state and district curricular frameworks and standards to guide instructional decisions.

These CMWI practices are enacted from an inquiry stance and can be organized as a series of inquiry cycles (appendix A) adapted from the work of Kathy Short, Jerome Harste, and Carolyn Burke (1996). These are the overlapping phases or components of this recursive cycle:

- Exploring (reading, prewriting, discussing, etc.)
- Focusing (framing issues and questions, etc.)
- Searching (gathering information from many sources)
- Synthesizing and evaluating (putting the information together, making sense of it all)
- Creating, publishing, and presenting (composing a message, drafting, revising, editing, and publishing/presenting to authentic audiences)
- Reflecting, assessing, and moving forward (evaluating the product and the process of the inquiry, looking for new questions)

### **CONTEXT AND EVOLUTION OF THE PROGRAM**

This program, then, was our response to the clear need across Texas for middle and high school teachers to learn more about how to help English learners become proficient and confident academic writers. From the beginning, we viewed this as a statewide initiative among NWP sites, although in the first year our focus was on six north Texas teachers implementing these principles and practices in their classrooms. In the second year, we expanded our focus to nine teachers from around the state and expanded the research design to include a matched comparison of the writing scores of participants' students with those of nonparticipating

teachers' students. More detailed information about the demographics of the participants is included in the research context sections below.

In both years 1 and 2, the CMWI program was planned and led by one of the site's co-directors with assistance from a teacher-consultant. In year 2 some of the teacher-researchers from year 1 also led demonstrations during the institute, showing how they had integrated the CMWI principles and practices into their instruction.

### **2007 Year 1 Institute**

In the 2007 advanced institute, we planned for participating teachers to 1) investigate current research related to writing instruction for adolescent English language learners; 2) plan, implement, and evaluate culturally responsive writing instruction for ELL students in our classrooms; and 3) disseminate what we learned to colleagues in the NWP Texas state network. During the three-day institute, we worked together as a community of practice, imagining ourselves as investigative reporters exploring how students' potential funds of knowledge could serve as resources for literacy teaching and learning. As part of the process, we interviewed one another and other adults who were academically successful English language learners.

We also used *Authors in the Classroom* (Ada and Campoy 2003) as our central text to explore how we might encourage students to write their stories. To illustrate how the process might work with students, especially as we move toward more formal writing for academic audiences, we followed an inquiry cycle, which we later revised and continue to use (appendix A). At the end of the three days, the teachers revised the CMWI principles and practices to be more useful for themselves and future project participants. Although this time was too brief for detailed instructional planning, the teachers agreed to develop ideas for implementing these principles in their classrooms in the coming year.

During the fall and spring of 2007–08, we held four Saturday-morning debriefing sessions including the research team and the teachers. These discussions proved helpful to both groups in deepening our understanding of how the principles and practices might be enacted in our particular contexts and also how we might best gather and analyze the observational and interview data documenting the teachers' work. It was during these sessions that we began thinking of the teachers as teacher-researchers because their insights were making a significant contribution to the goals of our research.

### **2008 Year 2 Institute**

The feedback from year 1 teachers and our ongoing study of published research helped us revise the content and structure of the 2008 institute. First, we met for five days rather than three. Second, we revised the principles and practices to be more concise. Third, we revised the inquiry cycle and used it more explicitly as a planning guide for instruction. Fourth, our preliminary findings from year 1 helped us talk about the complexity of the decisions the teacher-researchers seemed to be making as they supported their students, including their English learners. We were able to provide examples of how these teachers seemed to be stepping in to support students and then stepping back to let them build independence. At that time, we characterized these kinds of mediation, or support, as interpersonal/personal, content/concept development, literacy

skills/strategies, and linguistic mediation. The year 2 teacher-researchers left the institute with two instructional plans. One was a specific inquiry cycle for the beginning of the year to help them build a community of practice early on. The other was a more general idea for an inquiry cycle to be implemented in the spring—when the research team would make their observations.

### **Intended Influence on Student Outcomes**

Based on the research outlined above, we speculated that CMWI would positively influence both student engagement and writing performance. To document changes in student writing, we compared fall writing samples to spring writing samples in years 1 and 2.

### **RESEARCH QUESTIONS**

This project was guided by our questions about the influence of CMWI on student writing, as well as our questions about whether and how teacher participants would adopt and adapt these principles and practices. Our questions spanning the two years were:

1. What, if any, is the influence of CMWI on student writing performance?
2. How, if at all, do participants integrate CMWI into their instruction?
3. What, if anything, influenced teachers' integration of CMWI into their instruction?
4. How, if at all, does participants' integration of CMWI change over time?

### **RESEARCH DESIGN AND METHODS**

Our goal in year 1 was to describe how the participating teachers adopted and adapted the principles and practices of CMWI. We not only planned to identify and fully describe relevant features of CMWI instruction to guide our analysis in year 2, but also hoped that our findings would inform the ongoing revision and refinement of the CMWI institute. Year 1, therefore, used a multiple-case-study design: we followed the six teacher participants in the summer 2007 institute into their classrooms during the school year.

Our goals in year 2 were to continue refining our description of CMWI and to establish whether the integration of CMWI principles and practices would influence student writing. In year 2, therefore, we used a mixed-methods, quasi-experimental design. In addition to an inductive analysis of qualitative data to describe how the teachers integrated CMWI into their instruction, we addressed the question about student writing with a matched-pair comparison. One teacher from each matched pair participated in an advanced institute, then students of both participating and nonparticipating teachers were administered a pre/post writing assessment. The student writing samples were sent to the NWP Scoring Conference in Chicago, Illinois, for scoring.

### **Years 1 and 2 Data Sources and Research Questions**

The relevance of the four primary data sources to the guiding research questions is represented in table 1. The research questions called for qualitative methods to describe the work of the teachers and a statistical analysis of the students' writing scores.

**Table 1: Years 1 and 2 Data Sources and Research Questions**

	Year	Pre/post writing sample comparison	Classroom observational field notes (informed by instructional documents and photos)	Teacher interviews	Teacher written reflections
1. What, if any, is the influence of CMWI on student writing performance?	2	X			
2. How, if at all, do participants integrate CMWI into their instruction?	1 & 2		X	X	X
3. What, if anything, influences teachers' integration of CMWI into their instructional decisions?	1 & 2		X	X	X
4. How, if at all, does participants' integration of CMWI change over time?	1 & 2		X	X	X

### Year 1 Research Context and Participants

In year 1 the six teachers (five females and one male) came from three midsize to large suburban districts in north Texas. One middle school team comprised two teachers; the other two teams (two teachers each) were from high schools. These were all general education English classrooms with varying numbers of English learners, some of whom were officially identified as eligible for English as a second language (ESL) services. (In Texas eleventh- and twelfth-graders receive no ESL services, regardless of their English proficiency.) Typical of classrooms throughout Texas, Spanish was the native language of most English learners, although one high school included significant numbers of other language groups as well as Spanish. These teachers were also typical—native English speakers with varying levels of knowledge about support for English learners. Although their teaching experience ranged from one to fifteen years, their experience at their current 2007–08 grade level ranged from zero to four years. Table 2 summarizes these teacher characteristics.

**Table 2: Year 1 Teacher Characteristics**

Code	Gender	Native language	Ethnicity	Degree level	Grade level	Kind of class	No. of years teaching	Years teaching at this level
P1Yr1	F	English	Anglo	Master's	12 <sup>th</sup>	English IV	7-10	2
P2Yr1	F	English	Anglo	Master's	9 <sup>th</sup>	Test Preparation	4-6	4
P3Yr1	F	English	Anglo	Master's	7 <sup>th</sup>	Language Arts	11-15	2
P4Yr1	M	English	Anglo	Master's	7 <sup>th</sup>	Language Arts	1-3	3
P5Yr1	F	English	Anglo	Master's	10 <sup>th</sup>	English II	1-3	2
P6Yr1	F	English	Anglo	Master's	9 <sup>th</sup>	English I	4-6	0

### **Year 1 Qualitative Data Collection**

To build rich descriptions of the implementation of CMWI principles and practices in year 1, each of the six classes was observed at least five times throughout the school year. (For the purpose of the study, each teacher chose one section or class of students for data collection.) The first visit provided an overview of the classroom and school environment. During subsequent visits research associates took field notes, recorded classroom lessons, collected any papers distributed to students, and conducted a follow-up interview after the observation. Student work was collected when possible. Field notes of classroom visits were then transferred to the data-collection protocols developed prior to the study. Research associates added their inferences about CMWI principles and practices as they worked through the transcripts.

The six research associates were members of the North Star of Texas Writing Project community. Four of the six were teacher-consultants who had taught in classrooms where demographic changes had occurred, so they had strong background knowledge of the kinds of accommodations teachers must make for a diverse population. Prior to collecting any data, the research associates met for eight hours to develop a working knowledge of their task. Data-collecting techniques were shared, and tapes were viewed to practice the process. During the year, the research associates met periodically to debrief. In spite of these attempts to ensure that the field notes were comparable in focus and detail, the quality of the field notes and documentation was somewhat uneven. Where possible, the research team gathered additional details through observations, conversations with teachers, and a focus-group interview the following summer.

### **Year 1 Qualitative Data Analysis**

The qualitative data were analyzed inductively to identify patterns in teachers' implementation of CMWI principles and practices. To begin the analysis, one set of data from each participating teacher was read and coded. Initial categories that emerged from the data included oral response, written response, and high expectations. The emerging categories were similar to concepts in the CMWI principles and practices. These preliminary categories were then used to perform a more thorough analysis of data from each teacher's classroom, a process that helped us refine low-inference codes in light of elements of CMWI principles and practices. This analysis in turn provided the foundation for higher-inference categories. Debriefing sessions with the teachers were also instrumental in affirming and refining these codes. Using NVivo, one team member then analyzed the qualitative data. Two additional codes were added as a result of this analysis. Further discussion refined and confirmed those codes, helping us identify patterns within and across teachers' instructional practices.

### **Year 2 Research Context and Participants**

In year 2 the nine program teachers (all females) came from five campuses representing four school districts across the state. These nine teachers participated in the summer 2008 CMWI institute and collaborated on data gathering and analysis throughout 2008–09. As in year 1, all were mainstream teachers, not pullout ESL teachers. Two teachers came from a campus in north

Texas; three from central Texas; three from the Rio Grande Valley, near the Texas/Mexico border; and one from a small rural town near El Paso, two miles from the Mexican border. Five were middle school teachers, and four were high school teachers. Data about their ethnicity, language proficiencies, and teaching experience are reported in table 3.

**Table 3: Year 2 Program Teacher Characteristics**

Code	Gender	Native language	Ethnicity	Degree level	Grade level	No. of years teaching	Years teaching at current level	Full participation in program
P1Yr2	F	English	Anglo	Bachelor's+	7 <sup>th</sup> & 8 <sup>th</sup>	1-3	2	X
P2Yr2	F	English	Anglo	Master's	8 <sup>th</sup>	1-3	3	
P3Yr2	F	English	Anglo	Master's	7 <sup>th</sup>	4-6	2	X
P4Yr2	F	English	Hispanic	Master's	6 <sup>th</sup>	16-20	3	X
P5Yr2	F	Spanish	Hispanic	Master's	7 <sup>th</sup> & 8 <sup>th</sup>	+21	5	
P6Yr2	F	English	Anglo	Master's	10 <sup>th</sup>	1-3	3	X
P7Yr2	F	English	Anglo	Master's	9 <sup>th</sup>	1-3	1	X
P8Yr2	F	English	Hispanic	Bachelor's+	12 <sup>th</sup>	11-15	11	X
P9Yr2	F	English	Anglo	Bachelor's+	9 <sup>th</sup> & 12 <sup>th</sup>	4-6	3	

Source: Teacher Data Form

Nine comparison teachers were matched as closely as possible with each of the nine program teachers in year 2. Table 4 displays the demographics for the comparison teachers. Matched pairs can be identified by the corresponding number. C1 through C5 are middle school teachers; C6 through C9 are high school teachers.

**Table 4: Year 2 Comparison Teacher Characteristics**

Code	Gender	Native language	Ethnicity	Degree level	Grade level	No. of years teaching	Years teaching at current level
C1	M	English	Anglo	Bachelor's	7 <sup>th</sup>	2	2
C2	M	English	Anglo	Bachelor's	7 <sup>th</sup>	2	2
C3	F	Spanish	Hispanic	Bachelor's+	8 <sup>th</sup>	11-15	8
C4	F	English	Anglo	Bachelor's+	6 <sup>th</sup>	16-20	7
C5	F	English	Hispanic	Bachelor's+	7 <sup>th</sup>	21+	22
C6	F	English	Anglo	Bachelor's+	10 <sup>th</sup>	4-6	3
C7	M	English	Anglo	Bachelor's+	9 <sup>th</sup>	4-6	4
C8	M	English	Hispanic	Bachelor's+	10 <sup>th</sup>	9	9
C9	M	English	Anglo	Bachelor's+	12 <sup>th</sup>	10	4

Source: Teacher Data Form

The Year 2 teachers' school and community contexts were more diverse than in year 1. In the central and north Texas classrooms, the English learners were in the minority on campus as well as in their particular classrooms. The south and west Texas students were almost all native Spanish speakers, and one of their teachers was a native Spanish speaker. All the schools were typical of schools in their geographical areas. For example, the schools in south and west Texas had high percentages of Hispanic students and English learners. Although program and comparison schools were closely matched in racial diversity, statewide implementation made it challenging to obtain close matches on all potentially significant school variables. Details about the comparative demographics for program and comparison schools can be found in appendices B and C.

## **Year 2 Qualitative Data Collection**

For the purpose of the study, each teacher again chose one class of students for data collection. Similar to year 1, each class was visited by a data collector at least four times during the school year. One of the teachers dropped out of the study in the fall, leaving a total of eight teachers who completed the year with the research team. The statewide team, joined by two new observers from south and central Texas, met in September to establish data-gathering conventions, including an observation/interview protocol. The team met again in November and January to debrief about data collection and discuss preliminary analyses.

Our year 2 data collection was informed in two ways by our experience during year 1. First, from the first day of the institute, we let the teachers know that they were research team members, helping us gather data and providing insights to answer the research questions. We changed our language, calling the participants “teacher-researchers,” and changed our practices to include them as full partners in the project. This action seemed to reduce teacher resistance, which we had encountered during the early months of year 1 when those teachers did not understand their important role in the research project. Most of the year 2 teachers posted monthly online reflections on their instructional decisions and their students’ responses to CMWI, as we had requested. Second, we held a two-day writing retreat in July to support teachers in writing their reflections on the entire year. Five teachers and seven researchers attended. And third, we focused more intently on establishing shared understandings and practices among the data collectors. With generous support from the NWP staff, the team collaboratively developed observation and interview protocols along with data-gathering guidelines and note-taking conventions. Each observation was followed up, when possible, with an interview about the teacher’s rationale for his or her decisions regarding integration of the CMWI principles and practices.

The first visit provided an overview of the classroom and school environment. In the spring semester, the observer focused on an inquiry cycle in process. During each classroom visit, research associates took field notes, recorded classroom lessons, and collected instructional documents. Student work samples were sometimes collected as illustrations of the instructional activities. The research team posted their completed observation and interview protocols to an online discussion group to make the data set available to all on the research team. This password-protected online discussion group also served as an essential communication tool to coordinate the work of our statewide team.

## **Year 2 Qualitative Data Analysis**

In year 2 the observation and interview protocols were coded (according to the year 1 coding dictionary) and entered into NVivo. Various NVivo coding summary reports corroborated the patterns we were noticing in how the teachers implemented the CMWI principles and practices. Next, team members used the protocols and coding summary reports to inform case narratives for each of the eight year 2 participants, with excerpts from the data supporting claims in these case narratives. These case narratives synthesized what we knew about the teachers and were useful in our cross-case analysis (represented in table 5 below). This analysis allowed us to identify cases for which we had strong or weak evidence of each of the categories and

subcategories and helped us identify how some of the teachers changed over time. We continued to consult published literature to inform our understandings of these emerging themes and identified two overarching categories of patterns. One was related to teachers' intentions or their emphases on particular dimensions (social and cultural capital, academic content knowledge, thinking strategies across sign systems, and linguistic knowledge). The second was related to how features of CMWI were manifested in these eight classrooms. Once these themes were sufficiently defined, we revisited the interview protocols and the teachers' written reflections to find further examples of the four dimensions and four features in the data for each teacher. Both of these categories are explained below and are proving useful as we revise the CMWI institutes planned for 2010 and 2011.

## **Year 2 Quantitative Data Collection and Analysis**

To answer our second research question (how, if at all, do participants integrate CMWI into their instruction?), program and comparison student writing samples were collected in September 2008 and again in May 2009. The samples were scrubbed, labeled, coded, and shipped to the NWP offices in Berkeley, California, for individual processing. During the September collection period, the middle school samples size was  $n=127$ , and the high school samples size was  $n=78$ . In May the middle school samples size was  $n=95$ , and the high school sample size was  $n=42$ . The difference is attributed to student mobility, student program exits, and student reassignments.

The quantitative data (student writing samples) were scored by NWP at the annual scoring conference. Results were reported to the research team, and comparisons of the fall and spring writing scores proceeded.

### ***Quantitative evaluative framework***

To ensure technical rigor and credibility, scoring and data processing were conducted independently of the local site. The scoring was based on the NWP Analytic Writing Continuum, a modified version of the Six+1 Trait Writing Model (Bellamy 2005). The Analytic Writing Continuum, which includes refined and clarified definitions of the constructs measured, assesses the following elements of writing:

- **Content (including quality and clarity of ideas and meaning).** The *content* category describes how effectively the writing establishes and maintains a focus, selects and integrates ideas related to content (i.e., information, events, emotions, opinions, and perspectives) and includes evidence, details, reasons, anecdotes, examples, descriptions, and characteristics to support, develop, and/or illustrate ideas;
- **Structure.** The *structure* category describes how effectively the writing establishes logical arrangement, coherence, and unity within the elements of the work and throughout the work as a whole;
- **Stance.** The *stance* category describes how effectively the writing communicates a perspective through an appropriate level of formality, elements of style, and tone appropriate for the audience and purpose;

- **Sentence fluency.** The *sentence fluency* category describes how effectively the sentences are crafted to serve the intent of the writing, in terms of rhetorical purpose, rhythm, and flow
- **Diction (language).** The *diction* category describes the precision and appropriateness of the words and expressions for the writing task and how effectively they create imagery, provide mental pictures, or convey feelings and ideas; and
- **Conventions.** The *conventions* category describes how effectively the writing demonstrates age-appropriate control of usage, punctuation, spelling, capitalization, and paragraphing.

A national panel of experts on student writing, along with senior NWP researchers, determined that the Six +1 Trait model, while sufficiently comprehensive, required certain modifications to make it more appropriate for use in research studies. The following modifications were implemented in the NWP Analytic Writing Continuum prior to the scoring conference:

- The scale of the rubric was extended from four to six points in order to ensure sufficient discrimination and therefore allow increased sensitivity to any changes that might be observed.
- The language defining the traits was clarified to enhance the reliability of evaluative judgments.
- The evaluative judgments were modified to focus exclusively on the student writing (where, on occasion, the rubric previously included references to the reader's reactions or the writer's personality as the basis for judgment).
- Particular traits (notably *content*, including quality and clarity of ideas and meaning; *structure*; and *stance*) underwent considerable revision in order to bring conceptual coherence to the constructs and thereby enhance the reliability and validity of the scores relevant to those constructs.

### ***Scoring of the writing samples***

The writing samples were among those from seven LSRI sites scored at the NWP National Scoring Conference held in June 2008. Student writing was coded, with identifying information removed so that scorers could not know any specifics of the writing sample being evaluated (e.g., site of origin, group [program or comparison], or time of administration [pretest or posttest]). Of the 4,571 papers from students in the middle and high school grades, which included all of the student samples reported in this research project, 855 (19%) were scored twice so that reliability could be calculated.

The scorers participated in six hours of training at the beginning of the conference. Their scoring was calibrated to a criterion level of performance at that time and then recalibrated following every major break in the scoring (meals and overnight). At the middle and high school levels, which were the focus of this study, reliabilities (measured as interrater agreement, defining "agreement" as two scores being identical or within one single score point of each other) ranged from 83% to 93%, with an aggregate across all scores of 87%. (See appendix D for a complete analysis of the reliability of the scoring of student writing.) All data were entered via

optical scanning with built-in checks for acceptable score ranges and the like. The resolution of all discrepancies produced a highly accurate data file for use in our analysis.

**Table 5: Reliability Rates for Writing Scores by Analytic Attribute**

Number scored	Double score rate	All elements	Holistic	Content	Structure	Stance	Sentence fluency	Diction	Conventions
4,571	19%	87%	91%	88%	87%	84%	84%	88%	85%

The scores were then forwarded to the local research site, where they were transferred to Statistical Package for the Social Sciences (SPSS) version 17 for statistical analysis. The CMWI research team ran a repeated-measures analysis of variance (ANOVA) to find the between- and within-subject gains. Repeated-measures ANOVA was chosen as the most appropriate due to the sample size, data availability, and rigor; it is also appropriate for this statistical calculation because it tests the equality of means. (A repeated-measures ANOVA is used when all members of a random sample are measured under a number of different conditions. As the sample is exposed to each condition in turn, the measurement of the dependent variable is repeated.) Student scores of CMWI program teachers were measured against the student scores of comparison group teachers. Further, comparisons of scores were made between pre/post scores for the students of the CMWI teachers.

## FINDINGS

### Research Question 1: What, If Any, Is the Influence of CMWI on Student Writing Performance?

CMWI had a mixed influence on middle and high school students' writing performance, as measured and analyzed by student writing samples during year 2. ANOVA results validated the findings of the initial paired-samples t-test (see appendix E). The paired samples t-test computes the difference between the two variables (pretest and posttest) for each case, and tests to see if the average difference is significantly different from zero. ANOVA analysis also provided additional information about significant results ( $p < 0.05$ ) between and within groups, as well as the power (effect size) for each finding (for detailed results, see appendices).

The general findings are presented in tables 6 and 7 below (for more detailed information, see appendices D and E).

**Table 6: Year 2 Middle School Results of Repeated-Measures ANOVA— Student Writing Scores**

Score	Group	Mean pretest	Mean posttest	Mean difference	$F^1$	$p(F)$
<b>Holistic</b>	Program	2.58	3.08	0.50	4.912	.029
	Comparison	2.83	3.51	0.68		
<b>Content</b>	Program	2.71	3.19	0.48	5.347	.054
	Comparison	2.94	3.64	0.70		
<b>Structure</b>	Program	2.41	2.94	0.53	5.021	.027

	Comparison	2.67	3.30	0.53		
<b>Stance</b>	Program	2.76	3.31	0.55	7.945	.079
	Comparison	3.24	3.71	0.47		
<b>Sentence fluency</b>	Program	2.71	3.08	0.37	.743	.391
	Comparison	2.78	3.28	0.50		
<b>Diction</b>	Program	2.71	3.12	0.41	.701	.404
	Comparison	2.79	3.28	0.49		
<b>Conventions</b>	Program	2.57	2.81	0.24	1.254	.266
	Comparison	2.61	3.12	0.51		

<sup>1</sup> *F* values correspond to the test of significance of the interaction between group and time.

**Table 7: Year 2 High School Results of Repeated-Measures ANOVA—  
Student Writing Scores**

Score	Group	Mean pretest	Mean posttest	Mean difference	<i>F</i> <sup>1</sup>	<i>p</i> ( <i>F</i> )
<b>Holistic</b>	Program	2.75	3.11	0.36	1.497	.000
	Comparison	2.50	2.70	0.20		
<b>Content</b>	Program	2.75	3.11	0.36	1.650	.206
	Comparison	2.42	2.71	0.29		
<b>Structure</b>	Program	2.94	2.90	-0.04	1.670	.204
	Comparison	2.60	2.63	0.03		
<b>Stance</b>	Program	2.66	3.45	0.79	1.595	.214
	Comparison	2.30	3.10	0.80		
<b>Sentence fluency</b>	Program	3.10	3.26	0.16	3.094	.086
	Comparison	3.0	2.42	-0.58		
<b>Diction</b>	Program	2.70	3.34	0.64	6.288	.016
	Comparison	2.20	2.52	0.32		
<b>Conventions</b>	Program	2.61	3.20	0.59	4.036	.051
	Comparison	2.50	2.32	-0.18		

<sup>1</sup> *F* values correspond to the test of significance of the interaction between group and time.

Table 6 shows that middle school students made significant gains in *holistic score*, *content* (MD=0.50), *structure* (MD=0.53), and *stance* (MD=0.55) scores. These results indicate that the students were able to write with perspective, then arrange, support, and develop their ideas significantly better than at the beginning of the year. Table 7 also shows that high school students made significant gains in *stance* (MD=0.79), *diction* (MD=0.64), and *conventions* (MD=0.59). These results indicate that the students were able to write with improved perspective, mature vocabulary, and stronger use of grammar and mechanics when compared to the beginning of the year. These findings are consistent with CMWI principles and practices.

This quantitative analysis provides initial evidence that CMWI was effective in increasing middle and high school students' writing proficiency and leads us to the following claims in response to research question 1:

1. Middle school students improved in all areas of the Analytic Writing Continuum; furthermore, their improvement was statistically significant in the areas of *holistic score*, *content*, and *structure*.

2. High school students improved in all areas of the Analytic Writing Continuum except *structure*; furthermore, their improvement was statistically significant in *holistic score, diction, and conventions*.

### ***Limitations on the quantitative findings***

The relatively small student writing sample size must be taken into consideration when interpreting the findings. Initially, the sample size for middle and high schools students was more than 200. However, the sample size was reduced before the first collection point due to low student enrollment and teacher placements. The size was again reduced at the second collection point due to student mobility and students who were exited to mainstream programs. After the second collection point, middle school *n* (total) = 95 and high school *n* (total) = 42.

Because of budget, time, and local site constraints, it was difficult to find comparison teachers with characteristics (such as students eligible for free or reduced-price lunch, professional development, students' academic attainment, and school size) similar to the program teachers; this was especially true at the middle school level. The discrepancy between the pretest scores of the middle school program and comparison groups helps explain the differences in the results shown in table 6. However, it is not clear whether this discrepancy was due to variable support during the administration of the writing prompt or to inherent differences in student writing proficiency. (See appendices D and E for detailed graphs of the error bar for student mean achievement at 95% confidence intervals.)

### **Research Question 2: How, If at All, Do Participants Integrate CMWI into Their Instruction?**

Initially, the research team had difficulty seeing patterns in the teachers' discrete decisions or actions revealed in the data. On closer analysis, however, the layered and interdependent nature of these teachers' instructional decisions became apparent. As we identified recurring patterns in teachers' integration of CMWI, we also revisited relevant published research and checked our emerging insights with the teacher-researchers. The following discussion is grounded in the analysis of qualitative data from four year 1 teachers and eight year 2 teachers. The analysis revealed rich diversity in the ways these teachers integrated CMWI into their instructional decisions.

Although CMWI teachers enacted the principles and practices they learned in the CMWI institutes in diverse ways, we found two general categories of patterns related to implementation—one related to the teachers' goals for their students (which we call *dimensions of student language and literacy learning*) and one related to their instructional decisions (which we call *features of the instructional landscape*). First, the findings suggest that CMWI teachers focused in various ways on four dimensions of language and literacy learning: 1) social and cultural capital, 2) linguistic knowledge, 3) thinking strategies across sign systems, and 4) academic content knowledge. Second, across these four dimensions we found evidence of four features of complex learning landscapes in the classrooms of CMWI teachers: 1) caring communities of practice, 2) invitations to make connections, 3) inquiry and dialogue, and 4) mediation. Table 8 synthesizes our findings in response to research question 2, showing teacher changes in each of these categories.

**Table 8: Summary Chart: Dimensions of Literacy Learning and Features of CMWI Classroom Landscapes**

+++	Evidence of CMWI as organizing framework for instruction
++	Evidence of routine use of CMWI
+	Evidence of minimal use of CMWI
+ ---> ++	Evidence of increasing use of CMWI during study
0 ---> +	Evidence of initial use of CMWI during study

Yr 1, 2, both	Teacher	Dimensions of literacy learning				Features of CMWI classroom landscapes			
		Social/ cultural capital	Linguistic knowledge	Thinking strategies	Academic content knowledge	Caring communities of practice	Connections	Inquiry/ dialogue	Mediation
Yrs 1/2	Natalia	++	+	++	+	++	+	+-----++	++
Yr 2	Caroline	+	+	++	++	+	+	++	++
Yr 2	Haley	++	+	++	++	++	+	+	++
Yr 2	Lauren	0	0	+	++	0	0	0	0
Yr 2	Hannah	0 ---> +	0 ---> +	++	+	0 ---> +	0	0 ---> +	0 ---> +
Yr 2	Brianna	++	+	++	+	++	++	0 ---> +	++
Yr 2	Faith	++	+	++	+	++	++	0 ---> +	++
Yr 2	Olivia	++	++	+	++	++	++	++	++

The influences of CMWI on the teachers' instructional decisions are more fully addressed in the findings related to research question 3 below, but because those complex influences provide the context for our findings related to teachers' integration of CMWI, we mention them here. Each teacher brought unique experiences and priorities to the institute, and they returned to unique campus and classroom contexts. Each was cognizant of their particular curricular mandates and the need to prepare students for the state-mandated tests. They were also sensitive to their students' developmental and affective needs. These differences meant that each teacher interpreted and adapted the CMWI principles and practices in particular ways. That is, contextual differences made it difficult for the teachers to replicate the CMWI practices in any standardized way.

Despite individual differences in how CMWI was interpreted, two overarching categories of implementation patterns emerged: 1) teachers' instructional goals or intentions, which we see as interdependent *dimensions of student language and literacy learning* and 2) teachers' instructional decisions, which we describe as *features of the instructional landscape* in each classroom. The following discussion explains and illustrates the findings presented in table 8 above. Teachers' names are pseudonyms; students are referred to by initial.

### ***Teachers' intentions: Four interdependent dimensions of language learning***

In answering the second question—how these teachers integrated CMWI into their instruction—we noticed four dimensions of literacy that the teachers who embraced CMWI emphasized in various combinations. These four emphases were consistent with the components of Virginia Collier's (1995) "pyramid model" of language acquisition: 1) social cultural, 2) linguistic, 3) cognitive, and 4) academic. Some teachers saw these as interdependent dimensions; others saw them as competing and felt some level of conflict about how to set priorities.

**1. Social and cultural capital.** Most of the program teachers acknowledged and built on students' social and cultural capital in one of two ways—by building interpersonal relationships or by encouraging students to use their cultural knowledge.

*Social/interpersonal relationships.* The CMWI principles and practices were most evident in classrooms where teachers saw interpersonal relationships as central to their communities of practice. These teachers saw positive personal relationships with the students as connected to the students' willingness to take risks in their reading and writing. Chloe, a ninth grade teacher, provides a good example; she wrote in a reflective letter at the end of year 1:

*E's language gaps were obvious from the first day.... After spending a couple of weeks getting to know her, I found out that she has moved around a lot. Originally from Mexico, her family has moved from California to Texas in the last few years. E started to accelerate in her reading and writing progress about a month into the year. She was thrilled to have choice in what she read, looking for characters who resembled her or books that had Spanish words in them.... I wish I had more personal writing from E in addition to the responses she writes in her journal to her reading. I think that had I been able to provide writing time after the class wrote their poems, E's would have been rich in voice and she would have drawn from the craft of the author we were reading.*

Haley, a seventh grade language arts teacher, offers another example of the importance of interpersonal connections in CMWI classrooms. When asked why she chose to attend the CMWI summer institute, she recalled having to tell a seventh grade ELL Latino student, A, that he had failed the state mandated test again. She explained:

*I had to tell my A that he did not pass either of his TAKS tests. He was my only student [who did not pass]. How did he not pass? I felt so ashamed having that conversation with my innocent, fun-loving A. What I wanted to say to him was 'I am sorry.' I did not feel that A failed. We failed A: I failed A. After a year of supporting A through individualized instruction and encouragement, A improved but did not pass the TAKS.... The reality of it is that A was not prepared.... I have to admit, neither was I. I believe CMWI will be a huge step towards my preparation for the future A's that will walk into my classroom.*

Haley's interpersonal approach was also evident in her instruction, as an observer wrote:

*During the "Fear" unit, Haley placed students in small groups and asked them to share their ideas for their fear paper. Students were encouraged to "steal" ideas from each other. I sat in on one group's conversation and was amazed at how many of the students related to the Mexican myth of La Llorona: The Weeping Woman. Some of the students shared family stories of the myth while others reported actually seeing La Llorona during summer camp. Another [time] Haley asked about students' names as a springboard to a writing assignment. Haley asked, "What do you like about your name?" All of the students shared personal stories of where their names came from or what they meant.*

Like Haley and Chloe, CMWI teachers consistently focused on personal relationships with their students and the social interaction among students. They used readings, discussions, and writing assignments as opportunities to learn more about their students as well as to share information about themselves and to deepen these personal relationships. By forming strong positive relationships with their students, program teachers were able to learn more, not only about students' personal realities but also about their academic strengths and needs.

*Cultural knowledge.* Program teachers also helped students use their funds of knowledge ( and Amanti 1992; et al. 1993; Moll et al. 1992) to mediate their language acquisition and content learning. CMWI teachers often defined funds of knowledge as the student's home culture or ethnicity, and most of them selected reading materials and writing assignments with this in mind.

To capitalize on these funds of knowledge, some of the teachers worked hard at learning about the students' lives outside school. For instance, Olivia lived in a small town just four miles from the Texas-Mexico border and had firsthand knowledge of her high school students, the community, and issues that affected their daily lives; she deliberately integrated her students' funds of knowledge into her instruction. Religion was important to the community and her students, so these values emerged in classroom discussions of literature that was heavily focused on issues of religion, like Arthur Miller's *The Crucible* and John Milton's *Paradise Lost*. She invited students to engage in critical examination of social issues—migrant workers, the border fence, discrimination, and immigration—through the lens of their own experience as members of a poor, predominantly Mexican American community.

Program teachers also defined funds of knowledge more broadly to include popular culture and media. For instance, Caroline regularly brought in magazine and newspaper articles as well as books not typically taught in high school English classes. She often used Internet resources to support students' inquiries. She not only brought community resources into the classroom, but she also took her students into the community, including a field trip to work at a local soup kitchen and a visit to the local university. Similarly, Haley saw that a student was really interested in video games and knowledgeable about the game structure, plot, and rules. The next day she asked him and other students to discuss their interest in video games and promised "I am going to find a way to use video games in our class!"

These are just a few examples of how CMWI teachers integrated students' funds of knowledge to support their learning. In reading and writing activities, students were commonly asked to make personal connections and to rely on their cultural resources to help them make interpretations. Thus CMWI teachers' knowledge of students' experiences and value systems informed their instructional choices and mediated students' learning.

**2. Linguistic knowledge.** We define this dimension as the knowledge students have about one or more of the linguistic systems—semantics, syntax, phonemics, grapho-phonemics, and pragmatics. It also includes *conventions* like spelling, punctuation, and capitalization. Students learning a second (or third) language use this knowledge in cross-linguistic transfer, code-switching, and the use of cognates. Researchers in second language acquisition agree with Collier (1995): "To assure cognitive and academic success in a second language, a student's first language system, oral and written, must be developed to a high cognitive level at least through the elementary-school years" (np). This means that English learners' native language is an important resource as they build proficiency in English.

Accordingly, most of the CMWI teachers allowed or encouraged students to use their first language as they were thinking or talking about what they wanted to write, or as they were discussing unfamiliar vocabulary or the meaning of a challenging literary passage. In this way, the linguistic knowledge dimension of learning intersected with the social/interpersonal dimension and supported students' developing English proficiency. For example, Olivia, whose students were almost all native Spanish speakers, often listened to students as they asked

questions in Spanish, but she always responded to them in English. Her stated goal was for them to be able to function successfully as English speakers and writers in college courses. She knew that they would use Spanish as a thinking tool, but she encouraged them to write their final products in English.

Sometimes the teachers framed instruction about linguistic conventions not as a resource for thinking and writing, but as a necessary task of test preparation. For example, Haley explained that her students' benchmark test scores were low in the areas of conjunctions, independent/dependent clauses, pronoun antecedents, capitalization of proper nouns, transition words, verb tense, and revision for clarity. She believed it was her responsibility to teach her students to master these objectives. She explained to a student, "Baby, you are going to learn how to use independent and dependent clauses because that is my job. My job is to teach you well, and your job is to learn."

Finally, CMWI teachers often addressed the linguistic knowledge dimension using mentor texts—literary selections that illustrate particular syntactical constructions or effective word choice. An observer in Haley's class noted:

*The students are reading the book and writing sentence structures independently and in small groups. They are examining The Giver for examples. After the sentence lesson the students are reading along as the teacher reads the book. There is a lot of practice in the beginning with compound sentences by looking at The Giver as a mentor text. The students recognize that Lois Lowry writes many complicated sentences that they cannot name.... Haley encourages collaboration between the students and encourages them to help one another.*

Although these are clear examples, we saw less evidence of CMWI teachers' focusing on the linguistic dimension than on the other three (social and cultural capital, thinking strategies across sign systems, and academic content knowledge). These "mainstream" teachers, who were not primarily responsible for ESL instruction, may not have been thoroughly aware of how linguistic knowledge can help students build competence in academic discourse in English. Most of these teachers were themselves monolingual, so they did not have personal experiences to support the use of this dimension with their students. Also, most of these teachers had few newcomers in their classes; a focus on linguistic issues might be more evident in their work with students at beginning levels of English proficiency. Finally, we acknowledge that our understanding of this dimension is more detailed than when we first designed the CMWI institutes. We are modifying the content of future CMWI institutes to better address linguistic knowledge as a resource for thinking, reading, and writing.

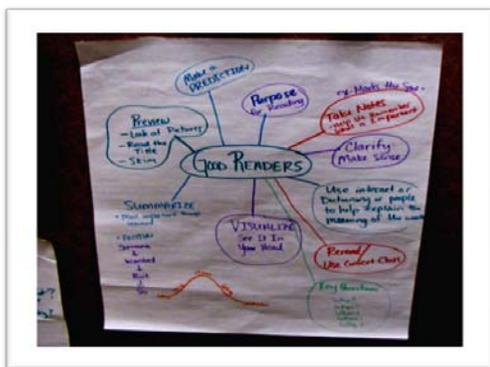
**3. Thinking strategies across sign systems.** A third dimension of language learning focuses on cognitive strategies, a category in which we include problem solving; "levels" of thinking as in the revised Bloom's taxonomy (Anderson and Krathwohl 2001); and reading/thinking strategies such as predicting, connecting, visualizing, summarizing, questioning, self-monitoring, etc. (e.g., Flower and Hayes 1981; Graves and Liang 2008; Harvey and Goudvis 2007; Olson and Land 2007). We use the phrase "across sign systems" because we noted that these teachers encouraged students to use these strategies with graphics, drawings, and media presentations, as well as with linguistic texts.

Attention to these strategies is clearly significant for English learners. Judith Langer and

colleagues (1990), who studied bilingual fifth-graders, found the “use of good meaning-making strategies rather than degree of fluency in English, differentiated the better from the poorer readers. . .” (463). In documenting the effectiveness of a cognitive-strategies approach to writing instruction for secondary English learners, Carol Olson and Robert Land claim that “it is the teacher’s responsibility to make visible for students what it is that experienced readers and writers do when they compose; to introduce the cognitive strategies that underlie reading and writing in meaningful contexts; and to provide enough sustained, guided practice that students can internalize these strategies and perform complex tasks independently” (2007, 274). CMWI teachers prioritized strategy instruction in various ways:

- Caroline worked with high school students who had not passed at least one English course and/or were judged to be at risk of failing the state-mandated test. She helped her students create the chart in figure 1, which became a well-used anchor and reminded students of target reading strategies.

**Figure 1: Anchor Chart Traits of Good Readers**



- Elizabeth, a ninth grade teacher in year 1, emphasized the cognitive-strategies dimension when teaching the classics. While her students read *Romeo and Juliet*, Elizabeth helped them make sense of the story by using a graphic novel adaptation of Shakespeare’s play. She combined reading, retelling, and discussion to support her students’ understanding. She and the students discussed and wrote scene summaries and predicted what might happen next. They discussed why the illustrator represented the characters and action in particular ways. Elizabeth’s students also wrote learning logs from one character’s perspective. As they wrote she moved around the room, supporting them individually rather than leaving them to use these strategies on their own.
- During her read-alouds to seventh-graders, Haley frequently stopped and talked about how she was making meaning: “I just read the word ‘subordinate.’ I don’t know what that means. I am going to write it on the board and see if I can figure it out.” Haley then separated the word into syllables and asked the students to help her define the prefix and suffix. She encouraged students to do the same when they read and acknowledged students with a class award if they showed her their own word bank of unknown vocabulary words.
- Faith also used interactive read-alouds with her seventh-graders, even within the curricular framework and instructional plan mandated by the school district. An observer in her classroom described how she focused on strategy instruction:

*After the students' (daily journal) writing, Faith reads a story aloud, stopping to engage the students in conversations about the story and what the moral might be. The students are relaxed and all of them participate, commenting and making connections with personal stories. Then Faith takes the students through a structured activity, helping them summarize each part of the story. She moves around the room, helping individuals as they need support, checking to make sure students indent their paragraphs and reminding them to use transitional words.... At the beginning of the year, Faith offers a great deal of structure for her students--prompts for the journal writing, a graphic to guide the summary writing. She is expected to follow C-Scope, a curricular framework and instructional plan, but Faith substitutes culturally relevant reading selections.... She clearly knows her students and strives to plan instruction that will invite students' enthusiastic and joyful participation.*

- Chloe, a ninth grade teacher in year 2, framed her strategy instruction as the “four Ps”: purpose, prior knowledge, previewing, and prediction. She wrote to the research team:

*As a reading acceleration class (test preparation) speeding ever so swiftly toward March 5th (the state testing date), we are of course in the throes of practicing reading strategies and critical reading of texts.*

As these examples illustrate, differing curricular expectations across districts and grade levels meant that CMWI teachers integrated thinking strategies across sign systems into their daily or weekly routine in particular ways, yet they saw this dimension as central to their work with students.

**4. Academic content knowledge.** Academic content knowledge is the final dimension in our data analysis that seemed to reflect teachers' intentions or priorities. We define this dimension as student learning related to curricular standards and mandated assessments. As Virginia Collier (1995) explains, “With each succeeding grade, academic work dramatically expands the vocabulary, sociolinguistic, and discourse dimensions of language to higher cognitive levels.” (np). More specifically, we see academic learning as including both a body of disciplinary knowledge (in this case the overlapping content areas of language, literacy, and literature) and a specialized discourse: the language and social practices used in language arts and literature classes. Jeff Zwiers (2004–05) makes a strong argument for a focus on academic learning: “Many English language learners need to learn English at accelerated rates to perform on grade level. Fluency in social language is not enough to help close the achievement gaps that are often created by a lack of academic language. We must train our students to hear, harness, and own the academic language that they need for success” (63).

CMWI teachers used multiple strategies to make the academic dimension meaningful and accessible to their students. For instance, Layla, a twelfth grade teacher, faced the challenge of helping English learners learn about British literature. She began the year by leading the students in thinking about definitions of culture, posing six questions about cultural practices in the students' communities. Later, when it was time to read *Beowulf*, Layla recalled:

*I gave the students information about the culture of the Anglo-Saxons before starting. About halfway through the story of Beowulf, we stopped and answered these six questions again, but this time about the Anglo-Saxons. It seemed to be an effective way to help them think about how history and life conditions affect the values a culture adopts.*

After this unit, Layla's students read definition essays by professional writers, then wrote their own definition essays using those six questions about their own communities to suggest topics.

Similarly, Olivia, the high school teacher in the small town on the Mexican border, chose challenging literature for her students, but she made it accessible to them by using a transactional, problem-posing approach that engaged them in highly academic work and conversations. In one exchange, a student asked Olivia a question about Toni Morrison's *The Bluest Eye*:

*Student: Is he trying to help her or hurt her?*

*Olivia: He does rape her.... 'At least he loved her enough to touch her.' What kind of comment is [the character] making by saying that? What does that tell you about her?*

The student seemed a little unsure, so Olivia added, "The only person that loved her enough to touch her did something horrible. This is the best treatment that she could get. What does that tell you about everybody else and the way they treated her?" Olivia told the student to think about it for a little while and then they would talk about it. This exchange illustrates how a transactional approach (asking questions and posing problems, rather than just supplying a correct answer as in more transmission-oriented models) can make academic content accessible to students.

With the middle school students, academic content knowledge often focused on vocabulary development and reading/writing skills in preparation for standardized tests. Faith's example illustrates how teachers used students' first language to help them learn English academic vocabulary. Because the majority of her students were bilingual, Faith encouraged the fluid use of English and Spanish in her classroom, accepting both languages at all times from herself and students. Faith built on students' knowledge of their first language to enhance their acquisition of academic English, making the English academic vocabulary more accessible to English language learners.

As these examples illustrate, perhaps our most important finding related to academic content knowledge is that, although all the CMWI teachers acknowledged its importance, not one of them focused solely on this dimension. Academic content knowledge was always developed in the context of social and cultural capital, linguistic knowledge, and/or thinking strategies across sign systems. It is perhaps the integration of these four dimensions of learning—albeit operationalized and prioritized in various ways—that makes CMWI so flexible, robust, and adaptable to different groups of students in diverse contexts.

### *Features of CMWI learning landscapes*

The second overarching category in the qualitative data we identified as "features of CMWI learning landscapes." These teachers shaped four primary features of their classroom learning landscapes: 1) caring communities of practice, 2) invitations to make connections, 3) inquiry and dialogue, and 4) mediation. Each of these aspects of the learning landscape is explained below; for an example of how one-seventh grade teacher integrated them all into her classroom, see appendix F.

**Caring communities of practice.** A community of practice has three characteristics: 1) mutual engagement in a 2) joint enterprise or shared work for which they develop a 3) shared repertoire of practices. In the CMWI classroom data, we can clearly identify those three

characteristics of a community of practice; in addition, we also see a consistent emphasis on caring relationships.

*Caring.* CMWI teachers encouraged mutual engagement in these communities of writers by encouraging respectful and caring relationships among their students (John-Steiner 2000; Noddings 2005). This built trust and encouraged students to take risks. For example, Brianna encouraged this risk taking in her seventh grade class by setting expectations for student interactions. She reminded students to respect others' answers and contributions, she allowed students to share freely without having to be called on all the time, and she accepted and acknowledged all contributions and validated students' responses. In this nonthreatening environment, students took risks, changed their minds, shared, and learned. Brianna said that all the students' answers "were right" so this "makes them feel good." In her mind, students' desire to share and participate would "build a better community." She added, "They are not afraid; they get involved; they ask questions."

*Mutual engagement.* Mutual engagement can be described as a respectful stance toward shared work. Brianna demonstrated this stance when she used one student's success as a model for others. Brianna began with "I would like to share the beginning of one student's story, but I need to get his permission". After obtaining the boy's permission, Brianna shared the introduction of his story with the class; the student smiled as she read.

*Joint enterprise as writers.* To achieve student engagement in this joint enterprise as writers, CMWI teachers sometimes framed literacy instruction as a set of literacy practices or tasks inherent to the work of a particular discourse community—e.g., readers, authors, scholars, or investigative reporters (Edelsky 2003). Most CWMI teachers seemed to establish these "joint enterprises" implicitly and subtly; others named the joint enterprise explicitly and made sure that all students were engaged as members of the community. For example, Olivia treated her twelfth-graders like college English majors, helping them write literary critiques of challenging novels and making formal presentations to one another as if they were attending a conference. Caroline, whose students were assigned to her class because they had either failed the state test or an English course, focused on helping her students build identities as "successful students," heavily emphasizing study strategies, habits, and school achievement. Elizabeth set up a writing blog for each of her ninth-graders, who posted an original piece every other week. When she realized how eager most students were to have a safe place to publish their writing, she said, "I am amazed at the online community of writers I have created! . . . It's as if they have been writing all the time at home and just needed somewhere to showcase their work." These are just three examples of how teachers established a joint enterprise in the classroom:

*Shared repertoire of practices.* A shared repertoire of practices is understood by each of the members of a group, in this case the teacher and students in the class. For the teacher-consultants and their students, the practices are related to the workshop model of writing instruction. The practices include time for reading and writing, often at or for specific time periods, writing in a writer's notebook/journal, conferring with the teacher or peers, revising and editing written work, and publishing work for authentic audiences. The teacher-researchers in this study had all experienced these shared practices during their invitational summer institute. Evidence of these shared practices were evidenced in the teacher-researcher classrooms through posters on the wall, such as in Brianna's classroom, and through time schedules for events such

as journal writing or sustained silent reading that were seen written on the agenda in Layla's classroom.

One of the most difficult expectations in the shared repertoire is the notion of authentic audiences. The teacher-researchers made strong efforts to make this happen for their students. For example, Olivia used her college textbook with her students. In this way, she was preparing them for college, and thus the work they created needed to be appropriate for a college audience. With this high expectation, her students wrote gothic novels and learned to discuss literature like *The Crucible* and *Paradise Lost*. Their final work was put into an anthology the students created on their own.

**Invitations to make connections.** A second feature of CMWI learning landscapes was that teachers continually invited students to make meaningful connections—with students' cultural backgrounds, interests, and prior knowledge and connections within and across texts. Luis Moll and others' (1992) concept of funds of knowledge as curricular resources supports this emphasis on personal and cultural connections. Furthermore, research on reading comprehension emphasizes the importance of making connections between and across texts. CMWI teachers helped students make all these kinds of connections as they read, wrote, and thought about significant issues.

Elizabeth, a year 1 participant, focused on helping her students make personal connections. She led her students through an inquiry cycle that culminated in a multi-genre project. One student's project (a collection of pictures, poems, and narrative) focused on her mother. One of her poems was called "The Stone I Love"; the narrative, which included stories of her family who were immigrants from Lithuania, told how her mom is "nutty, out there."

Layla used whole-group discussions with her twelfth-graders to help them make connections to literature. "I use discussions as anticipatory sets—I get them talking and thinking about something in their own lives, and then I move into, 'Well, let's see what Hamlet thinks about that.'" Because her classes include immigrants from Central America, Cambodia, and Vietnam, Layla understands the challenge of helping her students see connections to ancient British literature (which is not always easy for native English speakers either). Through writing and discussion, Layla encouraged students to think about connections to cultural practices and folk literature—even about monsters in their cultures—before reading about the Anglo-Saxon hero Beowulf and his monster, Grendel.

Brianna emphasized the importance of multiple kinds of connections: her writing assignments revolved around students' lives and friends, subjects that motivated them to write and talk. At the same time, Brianna was teaching adjectives, literary elements, dialogue, and so on. Brianna also began making explicit connections from day to day, unit to unit, in an effort to help students see and understand the "big picture" for learning: "I want you to think about everything we are doing here.... I have a plan ... figure out my plan ... we are looking at the model. Anytime we look at an example, we do it for a purpose ... we look at our examples and the author's example. What are we trying to build here?" (One student yelled, "A connection!") Brianna noted that the CMWI model had allowed her to see the importance of activating students' prior knowledge and helping them see connections to that knowledge in new learning experiences. This is particularly noteworthy because Brianna was in the first year of implementing a mandated curricular/instructional framework that prescribed fairly rigid rules for how teachers should move through the discrete skill lessons. Helping her students make

connections proved to be one way for Brianna to exercise her own judgment about instruction despite a fairly rigid new system.

**Inquiry and dialogue.** Because the inquiry cycle was a central component of the CMWI advanced institute, we were not surprised that CMWI teachers integrated inquiry into their instruction. (We pair “inquiry” and “dialogue” here because of the inevitable connection between the two. As Gordon Wells (2007) points out on page 266, “When students pursue investigations, they develop ideas and acquire information that they want to share and debate.”). What did surprise us was the wide range of ways these teachers enacted inquiry and dialogue in their classrooms.

*Various participation/dialogue structures.* Teachers used various participation structures to encourage different kinds of dialogue. Layla moved from the whole group to individual writing to paired response to writing and back to the whole group, a rhythm she seemed to tailor to students’ needs in the moment. Natalia spoke to the whole class as she made assignments and conducted brief lessons, but as soon as the students were busy, she moved from individual to individual, engaging each student in a private conversation. Caroline used both whole-group discussions and individual work time, usually within one class period. Brianna used small-group tasks. Elizabeth used student blogs to facilitate online conversations among students. These are just a few of the participation structures we observed in CMWI teachers’ classes. All of the teachers who attempted to integrate CMWI used a variety of participation structures, choosing them deliberately to encourage various kinds of dialogue. (When teachers struggled with student engagement or with student performance, we noticed that they seemed to be depending on whole-group explanation/discussion as a default participation structure.)

*Long- and short-term inquiry cycles.* Some CMWI teachers planned and implemented long-term inquiry cycles to frame the reading of literary texts, strategy lessons, and writing opportunities. For example, Elizabeth and Natalia planned comprehensive inquiry units that culminated in multi-genre projects. Chloe and Layla worked with the other twelfth grade teachers on their campus to organize their British literature course into inquiry cycles, focusing on issues like social class and culture. Haley and Hannah framed their inquiry as I-Search projects (Macrorie 1988). Hannah introduced multiple technological tools for her students to use in their inquiries. At Haley’s middle school, the I-Search project developed during the second year into a campus-wide initiative. With her high school students, Caroline began with a whole-class reading of Suzanne Collins’s *The Hunger Games*, moving from an issue-oriented inquiry cycle about hunger in the local community to a social action project and field trip to a local soup kitchen.

Other teacher-researchers used smaller inquiry cycles in their daily interactions with students. For example, Haley and Olivia consistently responded to almost all individual student questions by asking deeper and more probing questions. Faith also deliberately used questions with middle school students (even within her restrictive curriculum framework). She recalled:

*Throughout the year (at the beginning of each class), instead of my old “TLW” (The student will be able to . . .), I placed a burning question on the whiteboard. Students knew that this was the focus of our learning, and that by the end of the unit they should be able to answer that question. After almost a whole year of me posing the essential question, students selected their own “burning question” for the photo story project. Now they had an opportunity to pose their own questions—the only criterion was that the question had*

*to deal with something about them. I wanted this project to be something personal to them, something with meaning that they could look back on years from now and get a glimpse of how they were when they were twelve (or thirteen). . . . Some [students'] burning questions included:*

- *What is my purpose in life?*
- *Why is life so beautiful?*
- *Why does everything have to change?*
- *Why is life so hard?*

In May, Faith said the best evidence that her students were “getting it” was that “they [were] creating their own questions.” She said this led to improved attitudes toward writing. She also reported that, before she tried it, she thought it would hard to use the inquiry cycle, but that it was a “more natural process” than she had expected.

Caroline’s experience offers another example of how teachers integrated inquiry into literacy instruction. Caroline attended the CMWI institute in summer 2008 after her first year of high school teaching. Although she already believed in an inquiry approach, she wanted to incorporate that process in her teaching. As she wrote, “At the beginning of the year, I wanted to help my students become expert ‘noticers,’ but I often found myself providing answers instead of letting students search and explore.” Caroline wanted to leverage students’ everyday experiences and apply them to what they were learning in school. She also wanted to make sure that all students felt successful, had an opportunity to share what they knew already, and could explore their individual learning goals. She began by framing reading and writing as inquiry processes: What do good readers do? What is the writing process? However, after a year of work with the CMWI team, she came to see the need for inquiries about content as well as skills or strategies. As she put it, “Deep, rich content helps make powerful inquiries that provide students the opportunity to practice their literacy skills in a meaningful context.”

By spring 2009, Caroline’s classroom walls provided evidence of many inquiry cycles, including topics related to the Middle Ages, what good readers do, revenge, and effective research skills. Her spring inquiry cycle, “My Life in Ten Years,” was designed to help students start thinking about what they needed (educationally) to get the things they wanted in ten years. She explained that this inquiry cycle was intended to provide both meaningful lessons that would keep students engaged at the end of the school year and a competitive advantage when they went to college or to begin their careers.

As these examples illustrate, each of the inquiry cycles conducted by CMWI teachers served as a framework: sometimes for a long-term curricular project, sometimes for a daily lesson plan, and sometimes for a two-minute reading conference. Across all of our examples, questions played a central role in opening possibilities for English language learners (and native English speakers) with diverse cultural backgrounds and varying language proficiencies to make sense of their worlds on their own terms and to share what they were learning with other members of the community.

**Mediation.** Our findings support James Lantolf’s (2006) argument that second language acquisition occurs when people participate in authentic social and cultural situations, appropriate and internalize oral and written language practices and concepts, and eventually create original responses and adaptations. The supporting structures (concrete and symbolic/semiotic) that

facilitate this process are “mediational tools.” Drawing on Jerome S. Bruner (1966), Lantolf explains:

Bruner (1966) proposed that activities, artifacts, and concepts function as cultural amplifiers and suggested that as with physical tools—hammers amplify our strength and sticks amplify our reach—symbolic artifacts (e.g., literacy) amplify memory and increase our capacity to organize and communicate knowledge (cited in Lantolf, 2006, p. 70).

The teachers who most clearly integrated CMWI set up predictable routines, made challenging and interesting resources available, and invited their students to engage in inquiry-based reading and writing practices—all of which served to mediate students’ language and literacy learning. This mediation seemed to help students 1) make sense of their experiences, 2) appropriate particular language and literacy practices, 3) internalize meanings, and 4) create and express new representations and messages. Once this basic classroom “landscape” was in place to help mediate their students’ language and literacy learning, CMWI teachers observed their students so that they could step in with more mediation when needed and step back, giving students more independence, when possible. More specifically, our findings suggest that these CMWI teachers regularly used a range of concrete tools to mediate their students’ learning. The two we saw most often, anchor charts and mentor texts, are described below.

*Anchor charts.* An anchor chart is a handmade poster, a graphic representation that serves as a reminder of something students are learning. Posted in the classroom, it becomes a concrete reference tool that “anchors” key concepts students are using in their ongoing work. After participating in the academic literacy program, Layla noted her understanding of the important role concrete tools like anchor charts can play in mediating students’ learning: “The next time I do this unit, I want to focus on the word *culture* first, as one of my beginning-of-the-year activities.... I envision some kind of poster hanging in my room with an exploration of this term, so that I can refer to it throughout the year.”

An incident in Haley’s class illustrates how an anchor chart supported one student: As Haley was conferencing with the student, she turned to the back of the room and pointed to a poster with a large pizza drawn on it. She explained that the student was trying to write about the *whole* pizza but that she wanted him to write about *one piece* of the pizza. This helped the student understand how to write small, detailed “slices” of an event. Haley regularly referred to instructional posters to support her students’ understanding of skills and strategies, as well as reminders about how to manage their time during the writing workshop.

Like Haley, Caroline also used anchor charts regularly. She gradually built an anchor chart on the research process with her students. At the outset, she said, she “wanted to know what my English IV seniors already knew about the research process, so I had them draw pictures to represent the different steps.” During the following weeks, they each wrote a research proposal explaining what they wanted to research, why, how they would do it, and how they would share their learning. During that time, the class also experienced many mini-lessons on academic writing: incorporating quotes, including analysis, revising, and organizing. At the end of that time, Caroline asked her students to generate a list of skills needed to complete a research project. Their list was much longer and included advice such as:

- Pick good, reliable sources.

- Think outside the box.
- Interpret what the author means.
- Include your thoughts/analysis.
- Write—claims, evidence, analysis.
- Revise/edit.
- Examine different points of view and cultures.
- Think about the audience.
- Know your purpose.
- Be interested

From this student-generated list, Caroline created the anchor chart shown in figure 2; the anchor chart thus both mediated students' current learning and became a point of reference for their future research projects.

**Figure 2: Anchor Chart Generated by Caroline's Students About Their Research Process.**



*Mentor texts.* CMWI teachers used multiple genres and mentor texts to illustrate strategies and provide examples of an author's decisions. Mentor texts thus provided mediation for learning meaning-making strategies students could then apply on their own. Elizabeth explained her use of mentor texts early in fall 2007: "We all made life maps to help generate ideas for personal writing. Then we looked at five different examples of memoirs and talked about how the details in each contributed to the author's voice. We then set to work writing. A few days after we let the dust settle, we revisited our memoirs and took them through the revision step." As the year went on, Elizabeth's use of mentor texts became more frequent and sophisticated as she integrated mentor texts with other practices and tools:

*My students have strong voice and are good at ideas, but they lack details and have trouble with capitalization and compound sentences. Because of this, I would like to show my students more samples of strong sentences and look for mentor texts that come from a multicultural author or have a multicultural theme.... I now use more mentor texts before I set them free to write.*

Like other CMWI teachers who reported using mentor texts to help students with their academic writing, Haley used many different mentor texts in her units. For example, she used “The Raven,” by Edgar Allen Poe, as a mentor text during the “Fear” unit. Haley read the poem aloud while the students listened and annotated their responses in the margins. After the class read this text, the students and Haley talked about how Poe’s linguistic choices created a suspenseful mood and fearful tone.

### **Research Question 3: What, If Anything, Influenced Teachers’ Integration of CMWI into Their Instructional Decisions?**

In reviewing the data to determine what influenced teachers’ integration of CMWI into their instructional decisions, we noted six predominant influences. Four of these were grounded in teachers’ beliefs about what would be most beneficial to their students: 1) to validate their students’ identities/lives, 2) to apply teaching to the real world, 3) to help their students see themselves as readers, and 4) to maintain students’ interest. Two additional influences—which teachers experienced as barriers to decision making—came from 5) personal demands and 6) campus and community demands.

#### ***Positive influence on CMWI decisions: The need to validate student identities***

At the same time that the teachers were developing their classroom communities, they were making instructional decisions in an attempt to validate students’ experiences. Chloe wrote that she “noticed from the first week’s activity [the life map] that the students struggled pulling their own experiences together to find relevant details.” She had personally found this activity satisfying and had “anticipated using the activity for ideas or prewriting in later workshops,” but when she looked at their work, she “stuffed them quickly back into the students’ folders and haven’t referred to them since.” Chloe had discovered that validating students’ identity is not as easy as it might seem. But she did not give up and chose to read Nancy Farmer’s *The House of the Scorpion* with her students, a text she described as “a strong read-aloud.” She saw this as a text that lent itself to shared reading and would also engage her students, who had a wealth of diverse language experiences, through a story that “touched on the idea of identity and what it means to be human.” Her decision was clearly an attempt to validate the students’ experiences while at the same time build on their connections with—and understanding of—the characters.

Layla was intent on building her curriculum around her twelfth grade students’ experiences. She said, “Before the year began, I planned to center all my units around cultural and community concerns. I wanted to help my high school students think about their own identities and use these identities to help them become better writers.” Like Layla, Natalia made the decision to use her community-building activities to help her high school students be academically successful and to validate their life experiences. As she set CMWI in motion in her classroom, she stated firmly that she would start by connecting to students’ lives:

*This began with day one of class. I talked about myself and gave samples of my writing. I revealed personal things, not superficial, about my own life and some struggles I faced as a young person. In telling about myself I mentored our first two assignments, the life map and a life essay (autobiography). We took our first draft of the life essay through the writing process which included peer review and teacher consultation and created our first published piece of writing.*

***Positive influence on CMWI decisions: The need to write for the real world***

Teachers and researchers claim that many adolescents feel that school has nothing to do with their lives. As adolescents seek to learn more about themselves, they also need to see how what they are currently doing is relevant. For example, Olivia was intent on giving meaning to the work she did with her students. She had come from their community and wanted the same success for her students that she had experienced. Now enrolled in a graduate program, Olivia believed that her students were also headed to university, and she wanted them to see college in their future. She decided to use a college text, one used in her graduate program, in order to help prepare them for higher education.

Chloe also wanted her students to connect classroom instruction to their lives. In a letter to the research team, she explained how her decision to use a particular book had played out:

*It was important to me to remind the kids of the value of literacy and the right to education, so I chose Gary Paulsen's Nightjohn (1993) as the first read-aloud. The kids were quickly engaged in the book, and we discussed it when questions came up after a day's reading, but it was never forced. The students began asking each other if the title character's decisions were good or bad, if they would make the same decisions, and they slowly brought up connections to their life experiences.*

Like Olivia and Chloe, many CMWI teachers made decisions based on their desire to help their students understand the importance of reading and writing to their lives.

***Positive influence on CMWI decisions: The need to see students as readers and writers***

In 1987, Frank Smith encouraged teachers to invite their students into the "Literacy Club." This invitation was directed to everyone. He purported that if we were in the company of readers and writers, we would naturally be able to see ourselves in this same light; you "become like" the company you keep. This same theoretical frame was held by teachers using CMWI when making instructional decisions. For example, Faith made a strong statement in regularly greeting her students with "Good afternoon, writers!" Hearing this phrase on a daily basis can help students envision themselves as learners and writers.

Likewise, Chloe already saw her students as readers and writers. She explained why she modeled various aspects of the literacy process with her students:

*I try to model for them the types of responses that provide deeper thinking about texts (questioning, connecting, predicting). My hope is that they will begin to apply the strategies we use when reading together to their independent reading. I also am watching for them to think about themselves and reflect as readers. I plan to have them go back*

*through their journals and think critically about what they wrote to reflect on their goal from the beginning of the year and who they are as readers.*

### ***Positive influence on CMWI decisions: The need to keep students engaged***

Engagement is an important issue when thinking about the work that students do in a classroom. Teachers using the CMWI model want their students to be more than engaged. They want the students to be challenged by the work they do. As Caroline explained:

*At dinner tonight, I was talking to my mom about what I am doing and am planning to do with my English 4, British literature, classes. Right off the bat, she said, “Oh, British literature. That is boring.” I said, “No, listen to how I am going to teach it.” After I got done, I was like “Wow, I’ve figured out how I am going to teach British literature through inquiry!” She was like “Well, that is not boring!” I don’t know how it is going to turn out, but I am a little more excited about moving forward with my classes!*

When the teacher is excited and engaged, this enthusiasm often bleeds over into the students’

engagement. Later that month, Caroline posted again about her work with British literature. She centers her decisions on what will make the work challenging and engaging for students:

*It was by no means a completely student-directed conversation; however, it was the most back-and-forth conversation that has happened in this class all year. I think what was reaffirmed for me the most was that even these struggling students (many who are on the edge of not graduating) have something to say! These are the very students who sit in their classes and say nothing, yet with the **right topic and some scaffolding they carried on a very passionate and insightful conversation** [bold added].*

### ***Barrier to CMWI decisions: School demands***

After the CMWI advanced institute, our participants were eager to get back to their classrooms to implement the ideas. However, barriers sometimes affected their ability to take action and make decisions about what happened on their campuses. These barriers sometimes came in the form of school district demands, and teachers’ responses differed. For example, at the same time that Faith was hoping to implement some of the ideas from the CMWI institute, the school district imposed some curriculum demands: the teachers were to use CSCOPE, a “comprehensive, customizable, user-friendly curriculum management system” (CSCOPE website 2010). The intent of CSCOPE is to guide the teacher’s instruction so that students will be successful. However, like all scripted “packages,” CSCOPE does not necessarily meet the needs of all students. Faith’s response was to follow CSCOPE but replace the recommended *The Adventures of Tom Sawyer*, by Mark Twain, with Xavier Garza’s *Creepy Creatures and Other Cucuys* “since the stories are more familiar to the students in the border area.” Thus, Faith made decisions based on both demands. At the end of the year, Faith indicated she had worked on photostories before and was now modifying the project to work around both CSCOPE and the CMWI inquiry cycle. In this case, rather than seeing barriers, the teacher determined that she could base her decisions on both of these programs.

On the other hand, Lauren felt that district demands did not allow her to make decisions to include what she had learned from the CMWI professional development. She indicated that if it were up to her, she would “have [the students] take one scene and translate it according to a different perspective, like how would a gangster interpret this or more modern--how could [students] rewrite this as a romance or how could they rewrite it to relate more to their own lives. I would want students to manipulate the language to play with it.” However, she did not see that she had the opportunity to act on these ideas. She continued, “But I have so many restrictions. Restrictions come from my team, the chair, and my principal. We don’t really have autonomy as teachers. It is just difficult for me to do what I want. It is difficult to start something new.” Lauren felt that the system trumped the decisions that she would like to make.

Similarly, Caroline explained that she was having trouble making decisions. She noted that her instruction was influenced by what happened to students at other times of the day.

*I am struggling between teaching strategies as we go through an inquiry cycle vs. teaching strategies as I help students get through their academic assignments. You would think this is the same, but it is not! I feel pressure to help my students be successful on what external forces (other teachers, TAKS, etc.) are asking them to do, yet I am frustrated because these assignments and assessments are in complete opposition to an inquiry approach!!! If I could structure their assignments (or school was based on an inquiry approach), the strategies and instruction would be so much more meaningful.*

If the decision were up to Caroline, the students would experience learning that was more focused on their needs. In her view, her final decision could either directly align with CMWI or be in direct opposition to the school’s expectations. Because it is early in the school year and early in Caroline’s teaching career, it is difficult to know if she will be able to reconcile these two.

### ***Barrier to CMWI decisions: Personal demands***

When teachers learn something new to do in the classroom, it often requires that they must “let go” of something they are currently doing. Many teachers find this impossible; we hear teachers talk about “Mrs. A,” who has taught for 31 years and has taught the same class 31 times. Change can be very difficult, but it is often necessary if we want to see progress. During the program, Faith realized that she must let go of some of her ideas if she were going to practice what she had learned during the professional development. In an inquiry cycle, she had students develop their own questions to help her get used to letting go. The students “picked topics I would not have picked,” such as abortion and gay rights and marriage. Faith decided it was OK to let students pursue their interests. She explained that the students were willing to share and writing in paragraphs. Many were working well in groups and had expressed their “joy for this class.” Faith’s decision to let go had been rewarded, which might allow her to make other similar decisions in the future.

While Faith was able to set aside some of her beliefs prior to implementing CMWI, Lauren was not able to make that same decision. Lauren said that she “went to the CMWI training to see if there were any skills I can learn, but it is like I already do that.” When asked what she had in her class that related to CMWI, Lauren said, “Nothing. This is more teacher-directed; CMWI wants me to be more student-directed. I didn’t do any student-directed activities

or teaching. I have a hard time figuring out how to fit in the CMWI stuff into my everyday lessons.” Unlike Faith, Lauren stood firm that the prescribed curriculum had no room for the ideas she learned in CMWI.

Olivia expressed one other barrier to her decisions about using CMWI practices in her classroom. Many programs adopted by school districts claim to be the “silver bullet” or to have the answer to improved scores. Along with such claims, these programs bring specific formats to follow. Teachers are given “scripts” that sometimes narrow the lesson to exactly what the teacher is supposed to say and how the student is expected to answer. However, CMWI has no set procedures or guidelines. Thus, deciding how to use the principles and practices to guide instruction becomes more difficult for the teacher. It causes the teacher to reflect on prior lessons, determine what did and did not work, and finally decide what to try. In an interview Olivia stated:

*When I came back to school, that’s one of things I was looking at, how long I was spending in each area [of the inquiry cycle]. It became confusing when examining if all my lessons were truly inquiry, if all lesson should be, does it have to begin a certain way, etc. Does it have to formally begin this way, do we have to be going through the cycle formally, saying it to students overtly, making sure that the students knew they were doing exploring, searching, etc.? How much did the students need to know when they were going through the process?*

As Olivia reminds us, if the new ideas or curriculum seem too confusing, teachers may not even attempt the new approach.

#### **Research Question 4: How, If at All, Does CMWI Participants’ Integration of CMWI Change Over Time?**

When teachers return to their classrooms after professional development, they may incorporate the new practices to varying degrees. Some practices are ready to use “Monday morning.” However, other practices require more time for teachers to determine how to incorporate them into their classroom. For most CMWI teachers, this was a welcome and relatively quick process, just a matter of getting organized for the new methods. Others—a small minority—did not see the information as useful for improving their teaching. Furthermore, our findings suggest that not only was there no one way to integrate the CMWI principles and practices, but also that the ways each individual teacher incorporated these practices changed over time.

#### ***Hannah’s implementation: Small adaptation with sudden, big effect***

Although there was evidence of inquiry in initial observations of Hannah’s classroom (“Memoir Investigation” was noted listed on the board along with a couple of probing questions), the students acted bored and unengaged:

*Hannah: Someone tell me what you think.*

*Student: She was old because of the 50.*

*Hannah: If no one shares, I am going to call on Eric.*

*Student: I am not sharing.*

*Hannah: Eric, do you have a sister?*

*Student: I do, but I am not sharing.*

At the outset, Hannah's questions were not dialogue generating, but she wanted more students to participate. In the spring Hannah began using a "smart board," and students started using their clickers to ask questions, ask for help during class, and ensure that they had the information they needed to complete their I-Search project. After months of struggling to achieve student engagement, Hannah's small adaptation—the use of technology in the I-Search project (Macrorie 1988)—finally provided the mediation her students seemed to need and resulted in a dramatic change in their engagement.

### ***Caroline's implementation: Steady with dramatic adoption and adaptation over time***

Caroline had just completed her first year of teaching and was eager to attend professional development. She was already thinking about the changes she wanted to make for her students. When she left the advanced institute, she had great plans and energy to take back to her classroom: "I was determined to build a rich community in my classroom, a community of readers and writers." The researcher confirmed that many of the NWP principles were evident in her classroom, where she worked with students who had not passed the state-mandated test.

Throughout the year Caroline attempted to use what she learned at the advanced institute. In January she wrote:

*I can't say that I have been able to successfully implement inquiry units the way I had envisioned. However, I have successfully built relationships with these students and helped them to move forward academically. They all started school in the U.S. in 5th or 6th grade and had to learn English. They have successfully been passed from one grade to the next doing minimal reading and writing and getting next to nothing out of the assignments they have been given.... They are starting to understand the work it takes to read for comprehension and write to communicate your ideas with an audience. We still have a lot of work to do, but I believe we have built some common language and ideas with which to talk about our reading and writing, and I have done more this year to foster enjoyment in these activities rather than dread.*

Caroline's implementation was gradual despite her initial urgency. Yet although Caroline was hoping for a greater impact on the students during that first year, she saw that she was making progress. The following year Caroline continued to implement CMWI principles and practices. She created opportunities for students to read for real reasons and to inquire about the future by planning a trip to the local university and a soup kitchen. She is currently leading an initiative on her campus to support freshmen in an innovative campus-wide pilot program.

### ***Faith's implementation: Intentional adoption, subtle but significant adaptation***

As a middle school teacher of students who lived on the Texas-Mexico border with diverse language backgrounds and experiences, Faith was intent on ensuring that her students were ready for the mandated test and high school. However, her school's recent adoption of CSCAPE, a curriculum management system, constrained her ability to implement instructional

changes. Nonetheless, Faith found ways to incorporate CMWI approaches intentionally without compromising the CSCOPE structure. For instance, she substituted texts that were culturally relevant for the ones recommended by CSCOPE. She also incorporated small-group work. And while she continued to follow the CSCOPE grammar sequence, rather than focusing the discussion on the correctness of grammar, Faith changed the instructional format. The researcher noted that she “led a lively conversation about punctuation, spelling, grammatical usages, etc. Rather than using this as a ‘testing’ situation, she used it as a way for students to look closely at appropriate usage and talk about the underlying rules.”

By the end of the year, Faith had rephrased the day’s objective on the board; instead of “The student will ...,” she now listed a “burning questions” related to students’ work, such as:

*What makes a photostory super cool?*

*How can I enhance the mood of my story with narration?*

Faith noticed that students were more engaged because they were coming up with their own questions, something she connected to the CMWI approach. While these changes were not huge, they were subtle and very intentional on Faith’s part. And most important, they were accomplished within the framework of a mandated curriculum.

### ***Lauren’s implementation: Little or no adoption***

Lauren held high expectations for her students but considered herself to be in charge of their success in school and their future: “I have to prepare them for college.” In her teacher-centered classroom, students were expected to take notes from PowerPoint presentations and complete the assignments she gave. She described her students as “ELLs as well as the other kids who tend to have deficits.” Acknowledging that her style “is more teacher directed,” Lauren explained why she did not adopt the CMWI approach, which “wants me to be more student directed. I didn’t do any student-directed activities or teaching. I have a hard time figuring out how to fit in the CMWI stuff into my everyday lessons.” (She did, however, begin to allow her students to “retake a test and ... let them go back and correct the answers and look for text support.”)

In a spring 2009 interview, she further explained why she did not adopt CMWI approaches:

I went to the CMWI training to see if there were any skills I can learn, but it is funny because you think about the accommodations you make for kids, and I’m like ‘I already do that.’ You assess them as you go.

In addition to her sense that she had nothing to learn from CMWI, Lauren felt that even if she wanted to implement suggestions from CMWI, the district and campus expectations did not allow that flexibility—a distinct contrast from Faith’s example above.

### ***Brianna’s implementation: Gradual and deliberate, explicit adoption***

Brianna was deliberate and explicit in integrating CMWI into her classroom. She recognized that her students needed time to achieve her expectations. As she told a colleague at

her school, students must take many “little steps” before they begin to see progress, so teachers must remain patient and also take many “little steps” before the students “get it.” As part of taking those little steps, Brianna acknowledged that prior to the CMWI professional development, she had taught differently; for instance, in the past she had relied on worksheets, but she had come to realize that this type of practice does not allow the students to take ownership of the learning because it is not authentic. Noticing that her students could not transfer their correctly completed worksheet skills to real writing, Brianna began teaching parts of speech using models of literature—for example, Patricia Polacco’s children’s books.

Brianna also became more explicit with her students about the importance of making connections. She told her students, “I want you to think about everything we are doing here... I have a plan...figure out my plan...we are looking at the model. Anytime we look at an example, we do it for a purpose... we look at our examples and the author’s example. What are you trying to build here?” One student yelled, “A connection!” After praising him, Brianna began to talk about the connections between the examples.

Reflecting on how she was applying CMWI beliefs and practices, Brianna explained, “It is just happening every day. [The students] are not afraid, they get involved, they ask questions ... there is no fear.” She also reported improvements in her ELL students’ understanding of English grammar, which she attributed in part to her use of “translation and examples.” In short, Brianna was very intentional about her implementation of CMWI principles and practices and did her best to help her students benefit from this experience.

### ***Natalia’s implementation: Gradual and steady adoption over two years***

Natalia was the only teacher who participated in the data collection during years 1 and 2. She attended the invitational summer institute in 2007 and followed that month long experience with the advanced institute. During the first year of the implementation, her content was focused on the state-mandated test preparation. Natalia applied CMWI principles and practices one-on-one with the students in her nontraditional classes (after a brief introduction of a lesson, Natalia met individually in whispered meetings with her students in various parts of the classroom). She showed respect for her students, who had yet to pass the state-mandated test, noting that “this brings an added apprehension to writing for them.” During year 1 she was observed using individual conversations, careful modeling, and mentor texts (including her own completed assignments).

During year 2 Natalia’s implementation of CMWI principles and practices became more overt. While remaining respectful to her students and maintaining some of the one-on-one work, she now did more work with the whole class and groups. She was also able to describe more explicitly how she was implementing CMWI: “It’s an inquiry into ‘How can I effectively write so that so that I can achieve what I need to do on this test?’ They are exploring, they are questioning, they are synthesizing everything they need to know for this.” Natalia was ultimately able to articulate her progression with implementing CMWI, explaining, “Last year [CMWI] was much more daunting; this year it’s all interwoven. It’s not like a separate thing. We’re still doing this [test preparation], and we still can.” She also appreciated her collaboration with her colleague Caroline, who helped her implement CMWI. Another factor in Natalia’s steady adoption of CMWI was her openness to learning and her view of herself as a learner. At the end

of year 2, Natalia said, “I’m definitely still learning. I’m asking myself about that inquiry cycle.”

***Olivia’s implementation: Immediate adoption, then gradual adaptation***

Olivia quickly embraced the CMWI principles and practices. Hoping to prepare her twelfth grade students for college, she came to the professional development asking, “What can I do that will give them the right tools for college? When I take a class, I always look at what I can bring back, what I can apply. The theory piece [of CMWI], to me, was just another way of asking questions, another way of looking at texts. It seemed to just go very naturally with these other goals.” In this sense, the advanced institute helped her be reflective about what she was already doing in her classroom. She recalls, “The advanced institute was very helpful and made me take a look at my instruction in terms of the different components involved. One of the things that stands out in my mind: we were discussing past lessons, and some of the things we looked at were lessons that were and were not successful.” Thus during the advanced institute, Olivia was already reflecting critically about what was and was not working in her classroom.

However, “once we got back into school, and once we started having all of the things that interrupt school, it was harder to get back on track in the inquiry cycle.” First, unlike the environment in the advanced institute, she did not have the support of colleagues to help her think through the changes that could be made. Second, her district had just adopted CSCOPE, a curricular framework with rigid curricular demands. Third, fitting her new ideas into 45-minute classes slowed her implementation. Last, but certainly not least, were the students, whose strengths and needs are at the very heart of CMWI. While Olivia was prepared to implement CMWI in her classroom, she knew that she would need to match the pace of the students.

Olivia noticed an increase in the depth of discussion and student engagement, as reflected in students’ presentations and reactions to their peers’ presentations. Students began to question her and each other, including asking for justification for their responses and choices, something Olivia had not seen as much before. One student relayed a story about asking questions of his mom, who wanted to know who was teaching him to ask certain kinds of questions. Thanks to her ability to be reflective and her patience, Olivia was able to apply the CMWI principles and practices with her students in a gradual manner. Her experience illustrates how the day-to-day exigencies of school can slow teachers’ implementation of new practices—and the importance of the ongoing support of a professional development group.

**Implications for Research and Practice**

The findings from this two-year study provided the CMWI research team with insights about the complex decisions teachers make as they help English learners improve their academic writing. Not only have these insights influenced our work together, but they also suggest implications for research, for instruction, and professional development.

First, we saw mixed influences of CMWI on student writing; in general where gains were positive, they were also modest. So it will be helpful to look more closely at teachers’ exposure to and adoption of the program. The student writing scores in the classrooms of teachers who fully participated in all components of the professional development improved. The scores of those teachers who attended the summer institute but were not able to benefit from follow-up

support showed mixed results. This suggests the effectiveness of the CMWI approach to professional development, but it serves as a reminder that such professional development is more likely to have positive effects on students when it is ongoing and when participating teachers receive follow-up support as they implement what they learned.

Second, the two overarching categories describing how teachers implemented CMWI point to the need for more research focusing not only on student writing but also on the complex dynamics of literacy teaching and learning. These interdependent categories—the *dimensions of student language and literacy learning* and the *features of the instructional landscape*—provide a useful framework and a lexicon for exploring and talking with one another about these complex dynamics. Further research should focus on discovering relationships among 1) the dimensions of language and literacy learning, 2) the features of CMWI learning landscapes, and 3) changes in student writing. In other words, how can teachers use these dimensions and landscape features to best support academic writing improvement? This could include further research on how teachers (and their students) think about academic writing: What are the critical concepts? What are the skills and strategies related to academic and analytic writing? How can we shape students' experiences to help them appropriate this knowledge and these skills?

Third, a related implication for instruction is that the four interdependent dimensions (and cultural capital, linguistic knowledge, thinking strategies across sign systems, and academic content knowledge) can also be thought of as potential resources available to students. It is critical for us to be more explicit with students about these resources—about how students might use what they know in each of these areas to achieve particular goals. In addition, further research might suggest to teachers when and how each of these can or should be foregrounded in classrooms where English learners are learning academic discourse. Most specifically, we need to learn more about how linguistic knowledge (of both native languages and English) can support academic success.

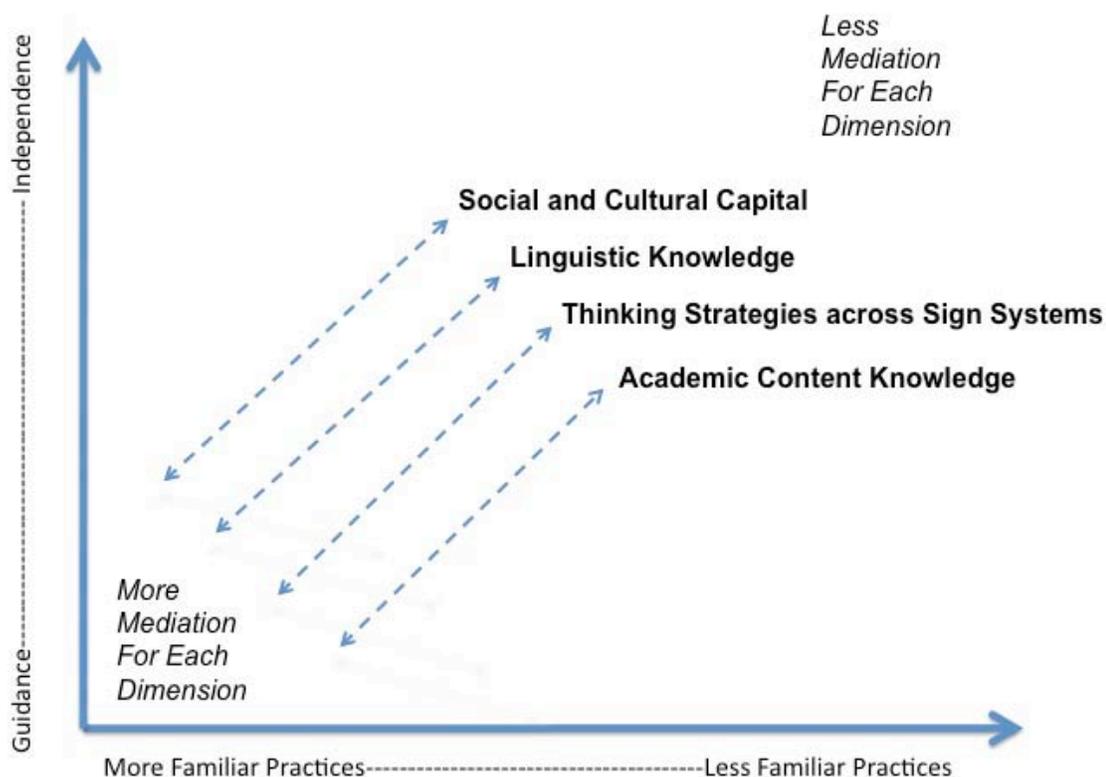
Fourth and also related to the above findings, the CMWI instructional landscape features—caring community, connections, inquiry and dialogue, and mediation—suggest that the sociocultural approach is a rich and generative theory base for teachers of English learners. The findings point to the power of the notion of a “caring community of practice” as a classroom descriptor, and they underscore the importance of tools like mentor texts and anchor charts—semiotic tools that are embedded in and emerge from the work of a community of practice. Future research should further refine our understandings of each of these landscape features as well as their roles in broader sociocultural approaches to language and literacy learning.

Fifth, related to the relatively small sample size in this study, future research should include larger numbers of students in both program and comparison groups, as well as more appropriate matches between program and comparison teachers. A related implication is the importance of uniform administration of writing prompts so that stronger inferences based on the comparison of pre/post scores can be made. In addition, writing prompts should be academically focused to elicit writing samples consistent with the program goals.

Finally, this study has implications for our understanding of how teachers differentiate instruction, how they make decisions to meet particular needs of diverse learners. The complex nature of these teachers' decisions to mediate different learners' work in different ways meant that teachers were continually orchestrating various levels of support, sometimes stepping in to provide more guidance and sometimes stepping back to allow student independence. Sometimes

they framed instruction that helped students use familiar concepts and language; sometimes they nudged students toward the unfamiliar. Over the course of this project, with input from the teachers, we generated and revised the instructional landscape diagram in figure 3 to help us think about this complex mediation process. Figure 3 shows the intersection of two kinds of support—the level of guidance and the degree of students’ familiarity with the content or tasks. The dotted lines represent teachers’ mediational moves for each of the four interdependent learning dimensions identified in these data. Heavy guidance and familiarity result in highly mediated instructional interactions. Less guidance and less familiarity result in low mediation. Appropriate mediation will vary for individuals and the group, as it will vary over time—sometimes within a single class period. When Haley realized a student was confused during a writing conference, she referred to the pizza anchor chart on the wall to remind him to write about just one piece of the pizza, one detail of the larger topic (page 29, above). When she realized that her students were interested in and knowledgeable about video games, she decided to find a way to integrate video games into her instruction (page 20, above). These are just two examples of the instructional moves to mediate student learning that are captured in our data. Such instructional options could never be thoroughly described in a scripted instructional program. These mediational moves happen when teachers are familiar with a range of instructional tools, know their students well, and care enough to adjust instruction to match students’ strengths and needs.

**Figure 3: CMWI Instructional Landscape Diagram (Adapted from Eoyang and Holladay 2010).**



This diagram helps us visualize and describe these teachers' complex instructional responses to individual and group strengths and needs. Although this diagram is consistent with the “gradual release of responsibility” familiar to many literacy teachers (Pearson and Gallagher 1983), it also shows that the simple phrase “releasing responsibility” does not capture the complexity of teachers' overlapping, interdependent, and dynamic decisions and actions. The differentiated instruction provided by the teachers using the CMWI frameworks helps us more clearly understand how effective teachers enact sociocultural and constructivist theories as they attempt to meet the needs of today's students.

These findings have enriched our work as a CMWI community of practice—a statewide community of researchers and teachers committed to supporting all students' learning. Our future CMWI professional development institutes will be enriched by these classroom examples and these teachers' insights. Our future research will build on the richness of these cases to frame questions that can better establish connections between teacher decisions and student learning. We look forward to continuing our support for the young adults in our secondary classrooms who are most often left behind. Together we are learning to see the diverse language and life experiences of both our teacher colleagues and their students in a different way. Rather than gaps to be filled or deficits to be mended, we now see rich resources for dialogic inquiry and transformational learning.

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## **APPENDICES**

Appendix A: Culturally Mediated Writing Instruction Inquiry Cycle

Appendix B: Year 2 Middle and High School Student Demographics and Comparison Schools

Appendix C: Year 2 Middle and High School ESL/Non-ESL Students by Group

Appendix D: Year 2 Middle and High School Mean Differences Between CMWI and

Comparison Group

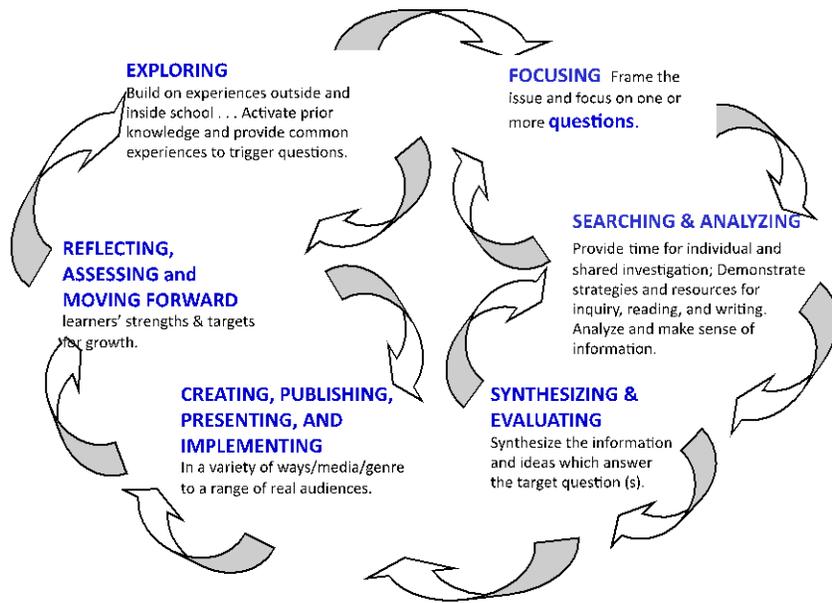
Appendix E: Year 2 Middle and High School Repeated-Measures ANOVA Results for All

Matched Cases on Holistic and Analytic Scores

## Appendix A: Culturally Mediated Writing Instruction Inquiry Cycle

# Inquiry Cycle

Adapted from Short, K. et al. (1996). *Learning together through inquiry*. Portland, ME.: Stenhouse Publishers.



### Appendix B: Year 2 Middle School Student Demographics and Comparison Schools

Criteria	Program school 1	Comparison school 1	Program school 2	Comparison school 2	Program school 3	Comparison school 3
Served by NWP staff development	Yes	No	Yes	No	Yes	No
Percentage on free or reduced-price lunch	50	40	39	19	85	96
Racial diversity (percentage)						
African American/Caucasian/Hispanic	7/27/65	3/41/55	24/35/33	16/56/25	<1/1/99	<1/1/99
Special education	13	11	10	9	11	16
Gifted and talented	6	11	10	14	10	5
Limited English proficient (%)	9	7	8	2	19	28

Source: Texas Education Agency, 2007–2008

### Appendix B: Year 2 Middle School Student Demographics and Comparison Schools (continued)

Criteria	Program school 4	Comparison school 4	Program school 5	Comparison school 5
Served by NWP staff development	Yes	No	Yes	No
Percentage on free or reduced-price lunch	93	96	93	96
Racial diversity (percentage)				
African American/Caucasian/Hispanic	<1/3/96	<1/1/99	<1/3/96	<1/1/99
Special education	15	16	15	16
Gifted and talented	10	5	10	5
Limited English proficient	23	28	23	28

Source: Texas Education Agency, 2007–2008

### Appendix B: Year 2 High School Student Demographics and Comparison Schools

Criteria	Program school 6	Comparison school 6	Program school 7	Comparison school 7	Program school 8	Comparison school 8
Served by NWP staff development	Yes	Yes	Yes	No	Yes	No
Percentage on free or reduced-price lunch	23	23	23	42	91	95
Racial diversity (percentage)						
African American/Caucasian/Hispanic	11/62/23	11/62/23	11/62/23	15/49/32	<1/2/96	<1/1/99
Special education	10	10	10	13	9	8
Gifted and talented	12	12	12	14	6	5
Limited English proficient	6	6	6	12	20	19

Source: Texas Education Agency, 2007–2008

### Appendix B: Year 2 High School Student Demographics and Comparison Schools (continued)

Criteria	Program school 9	Comparison school 9
Served by NWP staff development	Yes	Yes
Percentage on free or reduced-price lunch	46	27
Racial diversity (percentage)		
African American/Caucasian/Hispanic	7/28/63	4/45/51
Special education	14	11
Gifted and talented	6	12
Limited English proficient	5	3

**Appendix C: Year 2 Middle School ESL/Non-ESL Students by Group**

Criteria	Program group	Comparison group
ESL	56	39
Non-ESL	0	0
Total	56	39

**Appendix C: Year 2 High School ESL/Non-ESL Students by Group**

Criteria	Program group	Comparison group
ESL	22	20
Non-ESL	0	0
Total	22	20

**Appendix D: Year 2 Middle School Mean Differences Between CMWI and Comparison Group**

	CMWI (treatment)			Comparison		
	<i>Pretest</i>	<i>Posttest</i>	<i>Mean change</i>	<i>Pretest</i>	<i>Posttest</i>	<i>Mean change</i>
Holistic score*						
<i>M</i>	2.58	3.08	0.50	2.83	3.51	0.68
<i>SD</i>	.96	.91		.76	.76	
<i>N</i>	56	56		39	39	
Content*						
<i>M</i>	2.71	3.19	0.48	2.94	3.64	0.70
<i>SD</i>	.87	.79		.76	.79	
<i>N</i>	56	56		39	39	
Structure*						
<i>M</i>	2.41	2.94	0.53	2.67	3.30	0.53
<i>SD</i>	.90	.91		.73	.74	
<i>N</i>	56	56		39	39	
Stance*						
<i>M</i>	2.76	3.31	0.55	3.24	3.71	0.47
<i>SD</i>	.96	1.01		.85	1.00	
<i>N</i>	56	56		39	39	
Sentence fluency*						
<i>M</i>	2.71	3.08	0.37	2.78	3.28	0.50
<i>SD</i>	1.03	1.02		.89	.81	
<i>N</i>	56	56		39	39	
Diction*						
<i>M</i>	2.71	3.12	0.41	2.79	3.28	0.49
<i>SD</i>	.90	.98		.76	.77	
<i>N</i>	56	56		39	39	
Conventions						
<i>M</i>	2.57	2.81	0.24	2.61	3.12	0.51
<i>SD</i>	.94	1.05		.75	.80	
<i>N</i>	56	56		39	39	

\*Results are statistically significant.

### Appendix D: Year 2 High School Mean Differences Between CMWI and Comparison Group

	CMWI (treatment)			Comparison		
	<i>Pretest</i>	<i>Posttest</i>	<i>Mean change</i>	<i>Pretest</i>	<i>Posttest</i>	<i>Mean change</i>
Holistic score						
<i>M</i>	2.75	3.11	0.36	2.50	2.70	0.20
<i>SD</i>	1.06	1.07		.89	.98	
<i>N</i>	22	22		20	20	
Content						
<i>M</i>	2.75	3.11	0.36	2.42	2.71	0.29
<i>SD</i>	1.06	1.06		.93	1.10	
<i>N</i>	22	22		20	20	
Structure						
<i>M</i>	2.94	2.90	-0.04	2.60	2.63	0.0
<i>SD</i>	.93	.95		.99	.99	
<i>N</i>	22	22		20	20	
Stance*						
<i>M</i>	2.66	3.45	0.79	2.30	3.10	0.80
<i>SD</i>	1.04	1.06		.98	1.26	
<i>N</i>	22	22		20	20	
Sentence fluency						
<i>M</i>	3.10	3.26	0.16	3.0	2.42	-0.58
<i>SD</i>	1.09	1.0		1.03	1.02	
<i>N</i>	22	22		20	20	
Diction*						
<i>M</i>	2.70	3.34	0.64	2.20	2.52	0.32
<i>SD</i>	1.19	.89		.95	1.10	
<i>N</i>	22	22		20	20	
Conventions*						
<i>M</i>	2.61	3.20	0.59	2.50	2.32	-0.18
<i>SD</i>	.79	1.10		.83	1.10	
<i>N</i>	22	22		20	20	

\*Results are statistically significant.

## Appendix E: Year 2 Middle School Repeated-Measures ANOVA Results for All Matched Cases on Holistic and Analytic Scores

Score	Variance component	df	Mean square	F ratio	Test of significance P (F)	Effect size
Holistic	Between subjects					
	Program group (pre/post)	1	5.261	4.912	.029	.050
	Error (between)	93	1.071			
	Within subjects					
	Occasion (pre, post)	1	15.750	38.300	.000	.292
Content	Group x occasion	1	.408	.992	.322	.011
	Error (within)	93	55.17			
	Between subjects					
	Program group (pre/post)	1	5.379	5.347	.023	.054
	Error (between)	93	1.006			
Structure	Within subjects					
	Occasion (pre, post)	1	15.719	33.884	.000	.267
	Group x occasion	1	.667	1.437	.234	.015
	Error (within)	93	0.464			
	Between subjects					
Stance	Program group (pre/post)	1	4.507	5.021	.027	.051
	Error (between)	93	.897			
	Within subjects					
	Occasion (pre, post)	1	15.676	30.633	.000	.248
	Group x occasion	1	.150	.293	.590	.003
Sentence fluency	Error (within)	93	.512			
	Between subjects					
	Program group (pre/post)	1	8.47	7.945	.006	.079
	Error (between)	93	1.114			
	Within subjects					
Diction	Occasion (pre, post)	1	11.845	19.320	.000	.172
	Group x occasion	1	0.097	.159	.691	.002
	Error (within)	93	0.613			
	Between subjects					
	Program group (pre/post)	1	.891	.743	.391	.008
Conventions	Error (between)	93	1.199			
	Within subjects					
	Occasion (pre, post)	1	8.801	12.580	.001	.119
	Group x occasion	1	0.180	.257	.614	.003
	Error (within)	93	.700			
Conventions	Between subjects					
	Program group (pre/post)	1	1.389	1.254	.266	.013
	Error (between)	93	1.108			
	Within subjects					
	Occasion (pre, post)	1	6.187	11.279	0.00	.109
Group x occasion	1	.793	1.446	.232	.015	
Error (within)	93	0.549				

Note: ES is partial eta-squared. Program  $n = 56$ ; comparison  $n = 39$ .

### Appendix E: Year 2 High School Repeated-Measures ANOVA Results for All Matched Cases on Holistic and Analytic Scores

Score	Variance component	Df	Mean square	F ratio	Test of significance P (F)	Effect size
Holistic	Between subjects Program group (pre/post)	1	2.307	1.497	.000	.912
	Error (between)	40	1.541			
	Within subjects Occasion (pre, post)	1	1.664	3.432	.071	.079
	Group x occasion	1	.140	.289	.594	.007
	Error (within)	40	.485			
Content	Between subjects Program group (pre/post)	1	2.791	1.650	.206	.039
	Error (between)	41	1.691			
	Within subjects Occasion (pre, post)	1	1.691	4.233	.046	.094
	Group x occasion	1	.033	.061	.806	.001
	Error (within)	41	0.535			
Structure	Between subjects Program group (pre/post)	1	2.136	1.670	.204	.040
	Error (between)	40	1.279			
	Within subjects Occasion (pre, post)	1	.023	.039	.844	.001
	Group x occasion	1	.070	.121	.730	.603
	Error (within)	40	.582			
Stance	Between subjects Program group (pre/post)	1	2.668	1.595	.214	.038
	Error (between)	40	1.672			
	Within subjects Occasion (pre, post)	1	13.333	19.561	.000	.328
	Group x occasion	1	0.000	.000	.990	.000
	Error (within)	40	0.682			
Sentence fluency	Between subjects Program group (pre/post)	1	4.450	3.094	.086	.073
	Error (between)	40	1.439			
	Within subjects Occasion (pre, post)	1	.854	1.227	.275	.030
	Group x occasion	1	2.817	4.047	.051	.094
	Error (within)	40	.696			
Diction	Between subjects Program group (pre/post)	1	9.133	6.288	.016	.136
	Error (between)	40	1.452			
	Within subjects Occasion (pre, post)	1	4.841	6.950	.012	.148
	Group x occasion	1	.508	.729	.398	.018
	Error (within)	40	.697			
Conventions	Between subjects Program group (pre/post)	1	5.167	4.036	.051	.092
	Error (between)	40	1.280			
	Within subjects Occasion (pre, post)	1	.906	1.560	.219	.038
	Group x occasion	1	3.073	5.292	.027	.117
	Error (within)	40	.581			

Note: ES is partial eta-squared. Program  $n = 22$ ; comparison  $n = 20$