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The <u>CATESOL</u> Journal

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Addressing the Needs of 21st-Century Teachers Working With Culturally and Linguistically Diverse Learners

Preparing mainstream classroom teachers to work with culturally and linguistically diverse learners is a growing concern in education as more and more schools host increasing numbers of students whose primary language is not English. Unfortunately, significant numbers of teachers have had little preparation for working with these diverse learners and feel ill equipped to support their academic development. This mixed-methods case study explores the longitudinal impact of a professional-development program designed to increase teachers' knowledge of second language acquisition and of appropriate instructional practices for supporting English language learners (ELLs). Findings suggest that participation in the program had a positive effect on participants' knowledge of language and literacy acquisition, their ability to plan and manage instruction for ELLs, their understanding of appropriate assessment for ELLs, and their classroom practice. A year later, though focal participants claimed maintenance, these effects were only marginally present in their classroom practice.

There can be no educational development without teacher development ... the best means of development is not by clarifying ends but by analysing practice. (Lawrence Stenhouse)

Introduction and Theoretical Context

Promoting teachers' understanding of second language acquisition and immersing them in the practice of working with English language learners (ELLs) has received significant attention in the literature (Ballantyne, Sanderman, & Levy, 2008; de Jong & Harper, 2005; Godley, Wheeler, Minnici, & Carpenter, 2006; Hutchinson, 2013; Lucas, 2011; McAndrew, 2009; McGraner & Saenz, 2009; Samson & Collins, 2012). The reason for this interest is obvious, as many schools in the US, Canada, the United Kingdom, and Australia are experiencing growing numbers of students whose primary language is not English and who are often limited in their academic proficiency in this language (Cummins, Mirza, & Stille, 2012; Dobinson & Buchori, 2016; Dobson, 2009; National Center for Education Statistics, 2014).

In the US, in particular, there has been a strong call for an increase in "robust research to strengthen practice" so that we can avoid the negative consequences proffered by the failure to support ELLs in K-12 classrooms (Working Group on ELL Policy, 2009, p. 1). Findings from the National Assessment of Educational Progress (NAEP) published in *The Nation's Report Card* in 2013 underscore this imperative. Researchers found that non-ELLs scored significantly higher than ELLs in reading and math at the fourth- and eighth-grade levels; with math, in particular, "the achievement gap between non-ELL and ELL students was 25 points at the 4th-grade level and 41 points at the 8th-grade level" (Kena et al., 2014, p. 107).

This rather bleak picture has focused attention on mainstream classroom teachers and their preparation to work with culturally and linguistically diverse learners. Unfortunately, many mainstream teachers have had few educational experiences in working with diverse learners and they report feeling ill prepared to help them with their academic progress (Ballantyne et al., 2008; Cartiera, 2006; Hopkins, Thompson, Linquanti, Hakuta, & August, 2013; Samson & Collins, 2012).

Given this current state of affairs, there needs to be a restructuring of teacher professional development so that the cycle of unpreparedness for working with ELLs can be broken. Unfortunately, Samson and Collins (2012), citing the work of Lucas (2011), indicate that "there has been relatively little attention paid to the essential standards, knowledge and skills that general education teachers ought to possess in order to provide effective instruction to ELLs placed in their classrooms" (p. 2). TESOL, one of the largest international professional organizations focused on English language teaching, has developed professional teaching standards (TESOL, 2010). Although the TESOL standards are "designed for teacher education programs that prepare candidates for an initial certification, endorsement, or license in ESL teaching" (p. 6), they still provide a framework for preparing educators to work effectively with ELLs. Samson and Collins (2012) assert that it is "critical to consider how best to prepare mainstream, or general education, teachers to work with English language learners since they are increasingly likely to have such students in their class" (p. 2).

The TESOL standards include five domains of practice: language; culture; planning, implementing, and managing instruction; assessment; and professionalism. With the exception of the professionalism domain, which is explicitly related to the role of the ESL teacher, the first four, as outlined below, are relevant to mainstream classroom teachers as they work to effectively support the academic language and literacy development of ELLs in their classrooms.

Language and Culture. TESOL (2010) asserts the need of teachers to have a solid knowledge of theory and research on second language acquisition (SLA) and the ability to use this knowledge in supporting the language, literacy, and content-area learning of English language learners. This position is supported by Lucas, Villegas, and Freedson-Gonzalez (2008), who posit that a strong foundation in understanding how language is structured and acquired is crucial, as it allows teachers to simultaneously support ELLs' academic language and literacy development, particularly in content areas. This also includes a solid understanding of culture and cultural groups as pivotal in building effective learning environments (Lucas et al., 2008). Culture, in this case, "focuses on second language learning and the ways in which people's world-views affect their learning, understanding, production and interaction in a second language and a second culture" (Hinkel, 1999, p. 2). Though, as Hinkel laments, teacher preparation often fails to address "the many influences of culture on language learning and teaching" (p. 7), it is imperative for teachers to "become aware of the cultural assumptions regarding the nature of literacy, of literacy learning, and of parent involvement, and incorporate these understandings into their curriculum and instructional approaches" (de Jong & Harper, 2005, p. 114).

Planning, Implementing, and Managing Instruction. In accordance with much of the research in teacher education regarding pedagogical content knowledge (see, for example, Ball, Thames, & Phelps, 2008; Schneider & Plasman, 2011), it is vital that the teachers of ELLs possess solid knowledge for teaching academic content and a firm understanding of "evidence-based practices and strategies related to planning, implementing, and managing standards-based ESL and content instruction" (TESOL, 2010, p. 43). Although much has been written about effective teaching strategies for ELLs (see August & Hakuta, 1997), no "single instructional approach or method is likely to be effective for all ELLs given the diversity of backgrounds, resources, and challenges they bring to the learning environment" (Genesee, Lindholm-Leary, Saunders, & Christian, 2006, p. 227). Richards

(2008) stresses this sentiment, stating that teaching is a "complex cognitively-driven process affected by the classroom context ... instructional goals, the learners' motivations and reactions to the lesson, [and] the teacher's management of critical moments during a lesson" (p. 167). Consequently, teachers must have the stamina and fortitude to manage this learning environment so that it is supportive of ELLs.

Assessment. Teachers must understand "issues and concepts of assessment and use standards-based procedures with ELLs" (TESOL, 2010, p. 56) to make sure that assessment and differentiation practices are implemented in the service of their students' learning. As Baecher, Artigliere, Patterson, and Spatzer (2012) note, "Classroom teachers [need] to feel capable of making instructional choices that will support access to content learning and develop language skills" (p. 16). This can be accomplished only if teachers use sensitive assessments from multiple sources to help better calibrate differentiated instruction.

The study that follows investigates mainstream classroom teachers and their preparation to provide support for the academic language and literacy development of ELLs in their classroom through this professional-development framework.

Purpose of the Study

This study endeavored to explore the longitudinal impact on mainstream classroom teachers of the Modular Design for English Language Learners (MODELL) Instruction program, a hybrid (webbased and face-to-face) credit-based professional-development program designed to prepare mainstream classroom teachers to work with culturally and linguistically diverse learners. Through MODELL, training is provided in four distinct areas: the theory of language acquisition, cultural mindfulness, content knowledge addressing state standards, and teaching strategies for working with ELLs. The program involved two courses (one on foundations of language in second language teaching and a second course on assessment) that were offered during two consecutive semesters and included a program-long, classroom-based action research project. MODELL is unique because it is intensive, engaging participants in a yearlong experience focused on theory as well as practice, and it offers a hybrid learning format that combines online learning with professional learning communities. In addition, it emphasizes inquiry-based research that allows participants to tailor their learning needs to actual classroom practice.

The study focused on the program's impact on participants' understanding of the process of language and literacy acquisition, of planning and managing instruction for ELLs, of assessment of ELLs, and of application of learning, as evidenced through classroom practice.

Research Methodology

Case studies involve exhaustive, in-depth investigations of contemporary phenomena (Yin, 2009) within a bounded system (Stake, 1985). As such, they involve the use of several data-collection instruments, which may be both quantitative and qualitative in nature (Yin, 2009) and which depend on the type of research question(s) being asked (Shulman, 1981). Though case studies have been criticized for lack of generalizability, qualitative researchers compellingly argue that the goal of such research is not to make statistical generalizations but to provide insights into complex phenomena in ways that lead to enhanced theoretical understandings and can inform practice in similar situations (Stake, 1985; Yin, 2009).

The study reported here is part of a wider research project aiming to examine the impact of MODELL Instruction. In this article, we focus on data from one cohort of program participants to explore the following research questions: How, if at all, did program participation influence participants' (a) knowledge base about ELLs' language and literacy development, (b) ability to plan and manage instruction to facilitate the learning of ELLs in mainstream classrooms, (c) understanding of differentiated assessment and their ability to design and implement appropriately differentiated assessment plans for ELLs, and (d) classroom practice?

The nature of the research questions, combined with the desire to examine the program's impact both through the participants' perspectives as well as through the perspective of observers and objective measures, dictated the employment of a mixed-methods case study approach, which involved an in-depth, longitudinal study of a group of program participants through a variety of qualitative and quantitative data sources.

Participants

Study participants were the 34 members of a program cohort. Of these, 11 of the participants were in-service elementary teachers, 18 were in-service secondary teachers, and five were preservice elementary teachers. As detailed in the "Data Sources" section, to enhance our data depth, four participants were selected after course completion as focal informants and were followed up one year after program completion. The selection of the focal informants was guided by several considerations, including the presence of a complete data set, their status serving ELLs in a mainstream classroom at the time of the study, and their willingness to participate in the follow-up study. This multipronged approach supported a detailed and nuanced understanding of how program processes influenced participants and fortified the study's validity through triangulation.

Data Sources and Data Analysis

In line with the methodological demands of case study research, research procedures involved a variety of data sources:

Reflective Writings and Online Discussions. As part of their program obligations, participants wrote a series of reflections on course readings and classroom-based experiences and participated in guided online discussions on TESL theory and practice.

Pre-/Post-Surveys of Knowledge (SK). Cohort participants completed a researcher-constructed survey comprising 23 items informed by the ESL certification criteria of Pennsylvania and Washington states. Through this survey, which was expressed in a five-point Likert scale (*strongly agree[1], agree[2], neutral[3], disagree[4],* and *strongly disagree[5])*, study participants were asked to evaluate their TESL knowledge in the four areas of interest for the study: language and literacy acquisition, planning and managing instruction, assessment, and classroom practice. The instrument's validity is supported by its close alignment with widely used certification criteria in terms of both the conceptual categories and the survey items themselves.

Observations of Teaching Practice. The instruction of the inservice participants was observed by ESL-trained program personnel four weeks into the program and toward the end of the program. We also observed the four focal participants' teaching a year after program completion. Observations were guided by a 23-point observation rubric derived from the SK. Scoring was conducted using a threelevel scale (*evident, somewhat evident, not evident*). Additionally, the observer took field notes on the rubric with the purpose of substantiating rubric scores.

Follow-Up Interviews. The four focal participants were interviewed a year after program completion. Interview questions aimed at exploring the interviewees' perceptions and the potential impact of the MODELL Instruction program on their thinking and instructional practice in relation to working with ELLs.

The pre- and post-SK and teaching-observation rubrics were analyzed using descriptive statistics to determine group trends and to compare early and later program data. Since completion of the survey was voluntary and some of the participants did not have classroom placements (i.e., preservice teachers and some in-service participants such as librarians and administrators), the researchers ended up with only 24 complete data sets for the analysis.

To confirm significant changes in average responses before and after the test/observation, both per question and per individual with a sum of all responses, *t*-tests were used with an alpha level of 0.01 to verify differences and means, and these results were confirmed by nonparametric Wilcoxon tests for difference of medians. For the surveys, cross-tabulations of survey responses were categorized as *agreement* (raw score=1 or 2), *neutrality* (raw score=3), and *disagreement* (raw score=4 or 5) to ascertain whether participants were switching from disagreement toward agreement with respect to each question. To confirm categorical changes among *agreement/neutrality/disagreement* (surveys) and *evident/somewhat evident/not evident* (observation rubrics), tests of marginal homogeneity were performed.

The qualitative data (reflective writing texts, online discussion, and interview transcripts) were approached using qualitative content analysis (Kohlbacher, 2005). As a first step, all qualitative data were sorted into two main categories: early program data and late program data. Subsequently, the data were scrutinized using both focused and open coding. Focused coding involved using the research questions as a framework and developing codes to describe data evidence regarding each of our focal points of interest. At the same time, open descriptive coding was used to capture data content beyond the conceptual confines of our research questions. The descriptive codes produced were continuously reexamined with the purpose of refining code categories and developing progressively abstracted conceptual categories. As a last step, the early and late program data were compared to identify potential content differences.

Results

Guided by the considerations delineated by the research questions, the examination of the impact of the MODELL Instruction program on participants focused on four categories: language and literacy acquisition, planning and managing instruction, assessment, and classroom practice.

Language and Literacy Acquisition

Early Program Data. One of the purposes of this study was to examine if and how the participants' knowledge of second language acquisition evolved through their participation in the MODELL Instruction program. The analysis of the pre-program data of the SK indicated averages of well over 2 (toward *disagreement*) in the Language

and Literacy Acquisition category (see Table 1). The highest areas of disagreement were in understanding the process of literacy development for ELLs and in the ability to apply theory, research, and knowledge to facilitate this development.

Table 1

Survey of Knowledge Data: Language and Literacy Acquisition

Item	Language and literacy acquisition	Early program data	Late program data	Before to after change	P-value: Test of marginal homogeneity
1	I know, understand, and use the major concepts from ap- plied linguistics and second language acquisition to con- struct learning environments that support English language and literacy development and content-area achievement.	2.92	1.67	1.25	<0.001
2	I have a good knowledge of the process of first and second language acquisition.	3.08	1.63	1.45	<0.001
3	I have a good knowledge of the process of literacy develop- ment for second language learners.	3.25	1.71	1.54	<0.001
4	I have a good knowledge of strategies to assist English language learners in the differ- ent stages of second language acquisition.	3.00	1.50	1.50	<0.001
5	I know how to assist English language learners to com- municate using verbal and nonverbal language.	2.96	1.63	1.33	<0.001
6	I apply linguistic concepts and knowledge of language sys- tems to teach English language learners in the four skill areas of listening, speaking, reading, and writing.	3.21	1.83	1.38	<0.001
7	I apply concepts, theories, research, and knowledge of languages other than English to facilitate English language development.	3.50	1.96	1.54	<0.001
8	I apply concepts, theories, research, and practice to pro- mote English literacy.	2.88	1.79	1.09	<0.001

The study participants' early course writings were characterized by a sense of bewildered developing awareness regarding second language development and literacy acquisition, which underscored their self-evaluative data in the knowledge survey. All participants made references to a newfound or increasing cognizance of the particular instructional needs of ELLs, the stages of second language acquisition (SLA) and their instructional implications, the differences between social and academic language development, the impact of culture on learning, and the significance of comprehensible input. Many also commented on how misunderstandings led them to instructional missteps:

There are times that I expect more from students than they are able to produce. Too often, I am looking at the level of the class instead of the personal level of each student. I need to foster comfort in order to build self-confidence so that students produce more.

I was pushing those students who are early in their development to work twice as hard by focusing too much on the content of the classroom instead of meeting them where they are in their development.

The pre-program classroom observations confirmed that the application of SLA theories and a solid understanding of ELL literacy development were only marginally present in the participants' instructional practice (see Table 2).

Late Program Data. An analysis of the post-program SK data revealed participants' growing belief in their knowledge and ability to apply SLA theory to support the literacy development of ELLs. The question-by-question analysis yielded averages below 2 (toward *agreement*) in the Language and Literacy Acquisition category (see Table 1). All questions within the category show a pre- and post- difference significant at the .01 level.

The participants' reflective and other writings during the later part of the program align well with what they self-reported in the post-SK. These writings showed evidence of a continuing growth in their understanding of SLA and of ways to use this knowledge to support ELLs in their classrooms. Most participants discussed a developing awareness of the need to monitor their own language (e.g., use of idioms, sports metaphors) and the language used in textbooks (passive voice, specialized vocabulary) and to intentionally work toward making such usage accessible to ELLs.

Table 2

Classroom Observation Data: Language and Literacy Acquisition

Item	Language and literacy acquisition	Early program data	Late program data	Before to after change	P-value: Test of marginal homogeneity
1	Teacher knows, understands, and uses the major concepts from applied linguistics and second language acquisi- tion to construct learning environments that support English language and literacy development and content-area achievement.	2.00	2.32	0.32	0.03
2	Teacher has a good knowledge of the process of first and sec- ond language acquisition.	1.24	1.96+	0.70	0.002
3	Teacher has a good knowledge of the process of literacy devel- opment for second language learners.	1.25	1.92*	0.65	0.002
4	Teacher has a good knowledge of strategies to assist English language learners in the differ- ent stages of second language acquisition.	1.76	1.96	0.20	0.26
5	Teacher knows how to assist English language learners to communicate using verbal and nonverbal language.	1.28	1.60	0.32	0.08
6	Teacher applies linguistic concepts and knowledge of language systems to teach English language learners in the four skill areas of listening, speaking, reading, and writing.	1.40	2.08*	0.67	<0.001
7	Teacher applies concepts, theories, research, and knowl- edge of languages other than English to facilitate English language development.	1.32	1.64	0.32	0.04
8	Teacher applies concepts, theories, research, and practice to promote English literacy.	1.36	2.20	0.84	0.004

Note. *Single missing value for two participants. *Single missing value for one participant.

As demonstrated in Table 2, this growth trend was also evident in the comparison between the pre- and post-observations of the participants' instruction, which showed an improvement in the averages for all items in this category. The highest growth was recorded in the participants' ability to apply theories, research, and practice to promote English literacy. With the exception of two items (knowledge of strategies to assist ELLs in the different stages of language acquisition and knowing how to assist ELLs to communicate using verbal and nonverbal language), all items showed difference statistically significant at the .05 level.

Focal Participants, One Year Later. When interviewed a year after the end of the program, the focal participants asserted greater understanding of both language and literacy acquisition levels, noting that they had learned to be more patient in regard to students' acquisition of English and to pay attention to ELLs' proficiency levels. However, during the follow-up classroom observations, the observer found only traces of evidence of a firm understanding of language and literacy acquisition theory affecting classroom practice. Indeed, in this round of observations, the rubric scores averaged 1.5 (between *not evident* and *somewhat evident*) for the category. So even though in interviews the four in-service participants reported feelings of deeper understanding and competence in the realm of language and literacy acquisition, the translation of these understandings was not clearly evident in classroom practice one year out.

Planning and Managing Instruction for ELLs

Early Program Data. Participants were asked in the pre-program SK about their knowledge of how to plan, implement, adapt, and manage classroom instruction to support ELLs. The question-by-question analysis of this early data yielded averages well over 2 (toward *disagreement*) in this category (see Table 3). The highest areas of disagreement among the participants were in knowing how to modify instructional activities and in knowing how to develop, implement, and evaluate these activities for diverse learners.

The analysis of the participants' course writings in the early part of the program suggests the emerging development of new tools for examining the appropriateness of instructional practice, which was often accompanied by the admission of the inadequacy of their current practices:

When I typically design the groups that I work with for reading support, I choose students who have similar skills, abilities, and knowledge of reading strategies. I am noticing now that this is not the optimal grouping for students who are learning to read and acquiring a second language.

Table 3Survey of Knowledge Data:Planning and Managing Instruction for ELLs

Item	Planning and managing instruction for ELLs	Early program data	Late program data	Before to after change	P-value: Test of marginal homogeneity
9	I know and understand effec- tive practices and strategies for planning, implementing, adapting, and modifying curriculum and instruction in a variety of English language learner-delivery models.	3.17	1.75	1.42	0.001
10	I know well how to modify instructional activities to sup- port the learning of English language learners according to their language proficiency, native language development, and literacy development.	3.38	1.71	1.67	<0.001
11	I know well how to develop, implement, and evaluate a va- riety of curricular and instruc- tional activities for diverse English language learners.	3.46	1.88	1.58	<0.001
12	I know well how to collabo- rate with ESL professionals to design and implement ap- propriate instruction to assist English language learners in the process of acquiring Eng- lish and cognitive academic language skills.	3.08	1.75	1.33	<0.001
13	I have good knowledge of available school-support services that can assist the English language learners in language acquisition/content learning.	2.46	1.87*	0.57	0.033
14	I apply effective practices and strategies for organizing and managing a variety of support- ive learning environments, for example, cooperative groups, independent learning, and individualized instruction.	2.42	1.58	0.84	0.009

15	I apply a range of teaching strategies, structures, and models to support the devel- opment of basic interpersonal communication skills (BICS) and cognitive academic language proficiency (CALP), incorporating the four skill areas of listening, speaking, reading, and writing.	2.88	1.79	1.09	<0.001
16	I collaborate with ESL profes- sionals, other teachers, admin- istrators, and other educa- tional staff to support English language development, basic interpersonal communication skills (BICS), and cognitive academic language proficiency (CALP), incorporating the four skill areas of listening, speaking, reading, and writing.	3.04	1.96	1.08	<0.001

Note. *Single missing value for one participant.

In early writings, the participants reflected often on how to reshape the ways in which they planned and implemented their instruction. Many discussed nascent ideas about reforming their classroom climate to encourage more risk taking and experimentation with language. In addition, a number of participants envisioned strategies for encouraging ELLs' engagement and classroom participation as inquiry projects and quick-writes before oral responses. Also, several participants contemplated the use of alternative learning environments for supporting ELLs (e.g., heterogeneous cooperative groups, individualized interaction and instruction) and the need to consult with ESL professionals for additional support. The early program classroom-observation data showed that the program participants had only minimal knowledge of how to plan and manage instruction for ELLs. Furthermore, the participants did not demonstrate ability to collaborate with ESL professionals to design and implement instruction or to support language development (see Table 4).

Late Program Data. The late program data show promising growth in participants' practice and awareness in planning and managing instruction effectively for ELLs. Indeed, a question-by-question analysis of the post-program SK responses yielded averages significantly below 2 (toward *agreement*) in this category (see Table 3), with all but one question (knowledge of available school-support services that can assist the English language learners in language acquisition/ content learning, p value= 0.03) showing pre- and post- differences significant at the .01 level.

Table 4

Classroom-Observation Data: Planning and Managing Instruction for ELLs

Item	Planning and managing instruction for ELLs	Early program data	Late program data	Before to after change	P-value: Test of marginal homogeneity
9	Teacher knows and under- stands effective practices and strategies for planning, implementing, adapting, and modifying curriculum and instruction in a variety of Eng- lish language learner-delivery models.	1.16	1.92	0.76	0.003
10	Teacher knows well how to modify instructional activities to support the learning of English language learners according to their language proficiency, native language development, and literacy development.	1.64	2.12	0.48	0.03
11	Teacher knows well how to develop, implement, and evaluate a variety of curricular and instructional activities for diverse English language learners.	1.52	2.24	0.72	0.002
12	Teacher knows well how to collaborate with ESL profes- sionals to design and imple- ment appropriate instruction to assist English language learners in the process of ac- quiring English and cognitive academic language skills.	1.04*	1.16	0.04	N/A
13	Teacher has good knowledge of available school-support services that can assist English language learners in language acquisition/content learning.	1.16	1.36	0.20	0.27
14	Teacher applies effective practices and strategies for organizing and managing a variety of supportive learning environments, for example, cooperative groups, indepen- dent learning, and individual- ized instruction.	2.08	2.68	0.60	<0.001

15	Teacher applies a range of teaching strategies, structures, and models to support the development of basic interper- sonal communication skills (BICS) and cognitive academic language proficiency (CALP), incorporating the four skill areas of listening, speaking, reading, and writing.	1.80	2.40	0.60	0.004
16	Teacher collaborates with ESL professionals, other teachers, administrators, and other educational staff to support English language develop- ment, basic interpersonal communication skills (BICS), and cognitive academic language proficiency (CALP), incorporating the four skill areas of listening, speaking, reading, and writing.	1.00	1.24	0.24	N/A

Note. *Single missing value for one participant.

This growing confidence was also echoed in the participants' reflective writings. Many articulated their determination to foster supportive environments in which ELLs feel free to express themselves, experiment with language, and carve out comfortable social positions in their classrooms. These declarations were supported by specific practices, such as promoting the use of the students' native language(s) in school contexts, encouraging the use of multiple modes of expressing knowledge, refraining from overcorrecting, and helping "ELLs with the cultural divide by covering social norms through asset-building lessons."

In addition, all participants discussed how they were endeavoring to appropriately modify instructional activities in deference to English-proficiency levels, such as focusing on more direct vocabulary instruction and the use of student-created glossaries. A commitment to monitoring their language and to purposefully facilitating ELLs' comprehension of potentially challenging concepts was ubiquitous in the participants' late program data.

I am trying to stay two steps ahead of my mouth in the classroom. I am trying to speak thoughtfully using words that I am confident my ELLs will understand. When I am reading to my class, I am stopping more frequently to explain vocabulary. I am constantly on the search for objects to use as examples in my room. In an attempt to make the learning more accessible to all students, we have made it a practice to pre-teach new concepts to the ELLs and to any other students who may be lacking in the background necessary to be successful in a lesson that contains a significant amount of new information. This proves to be time consuming, but definitely worthwhile.

Furthermore, participants proffered other supportive strategies, including the use of visuals to facilitate communication, taking on the role of scribe for novice ELLs, facilitating "new experiences that enhance the students' core knowledge," such as field trips and community expert visits, modeling through thinking aloud, the supported use of manipulatives, and the implementation of purposeful and flexible learning configurations for different purposes. Several participants also noted that their experiences with the program had led them to seek out the ESL teachers in their settings and to work with them to improve the learning experiences of their shared students.

Participants' successful use and growing confidence with several scaffolding strategies for ELLs was also mirrored in their classroombased inquiry projects. Among strategies applied, explored, and incorporated into their teaching were several types of journals (dialogue, math, student-teacher); drama techniques, such as Reader's Theater and kinesthetic learning; spiral review; the use of manipulatives for content and vocabulary instruction; and the deployment of songs, chants, patterns, and rhymes in early writing instruction.

Despite, or maybe even because of, the participants' growing understanding of what is needed for effective planning and managing of instruction, a few participants reported an uncomfortable dissonance between what they knew needed to be done and what they considered themselves able to do:

I now realize that I have students that are emergent readers, developing readers, and expanding readers. This has become extremely frustrating to me because I have such a difficult time pacing my lessons so that all of my students' needs are met.

As shown in Table 4, the positive trend in participants' ability to appropriately plan and manage instruction for ELLs was somewhat verified through the post- observations of teaching: All post- observation averages are higher, though only five of the eight items had a difference significant at the .05 level. The observer noticed a greater variety of instructional supports, student-centered activities, approaches to managing instruction, and more frequent checks for understanding. However, late data showed little growth in the participants' ability to access school support personnel, including ESL professionals, with whom to collaborate in supporting language development through classroom instruction.

Focal Participants, One Year Later. All interviewees reported an increased level of comfort and self-confidence regarding the effective teaching of ELLs, as well as greater use of differentiated instruction. One participant asserted that she had not only gained many strategies and resources for working with her ELLs, but that she had been encouraged to use her natural strengths as an educator to better meet theirs. Another participant noted that the program helped her understand differentiation for all students as a process of meeting the learner "where they're at" and working together to make learning appropriate and meaningful for all.

Regrettably, as with the observation evidence related to language and literacy acquisition, the observer found only traces of actual research-based TESL instructional strategies' being applied in the focal participants' classrooms one year after the conclusion of the program, as scores averaged 1.75 (toward *somewhat evident*) in the category, substantiating a dissonance with translation into actual classroom practice.

Assessment of ELLs

Early Program Data. The pre-program SK data about participants' knowledge and understanding of how to assess the language and literacy development of ELLs suggested lack of confidence in this area. The question-by-question analysis of this early data produced averages over 2.5 (toward *disagreement*) in the Assessment category (see Table 5).

Remarks related to assessment were rather rare in the participants' reflective writings during the early part of the program. These references were characterized by the articulation of a dual tension: the acknowledgment of a need to "get to know and constantly monitor student progress" and skepticism about the appropriateness and fairness of assessment practices that were in place at the time.

Unsurprisingly, early observation data revealed that an understanding of the issues, principles, and methods-appropriate assessment of ELLs was an element strikingly absent from classroom practice (see Table 6). While the observer did note a promising level of competency in implementing a variety of classroom-based assessments for academic-progress monitoring, the elements pertaining to recognizing potential linguistic and cultural biases inherent in assessments and to the use of a variety of language-proficiency instruments

Table 5 Survey of Knowledge Data: Assessment

Item	Assessment	Early program data	Late program data	Before to after change	P-value: Test of marginal homogeneity
17	I know and understand issues, principles, and methods of assessment related to the education of English language learners.	3.13	1.67	1.46	<0.001
18	I use a variety of language proficiency instruments and assessment methods for various purposes, for example, determining eligibility, place- ment, monitoring progress, and informing instruction.	3.46	2.04	1.42	<0.001
19	I apply a variety of classroom- based assessment tools and methods to inform instruc- tion and monitor academic progress.	2.52*	1.79	0.74	0.089
20	I recognize potential linguistic and cultural biases of as- sessment instruments and procedures and implement appropriate modifications and accommodations.	2.58	1.92	0.66	0.009
21	I have good knowledge of assessment tools that can be used to document English language learners' progress in various curricular and instruc- tional activities.	3.38	1.71	1.67	<0.001

Note. *Single missing value for one participant.

and assessment methods at the programmatic level were absent (see Table 6).

Late Program Data. The analysis of the post-program SK data again suggested a growing belief in the participants' knowledge and understanding of how to adequately assess the language and literacy development of ELLs. The question-by-question analysis in this category yielded averages around 2 and below (toward *agreement*) in this category (see Table 5), with all but one pre- and post- averages being statistically significant at the .01 level.

In contrast to the participants' early reflective writings, assessment was quite prominent in the late program data, a phenomenon

Item	Assessment	Early program data	Late program data	Before to after change	P-value: Test of marginal homogeneity
17	Teacher knows and under- stands issues, principles, and methods of assessment related to the education of English language learners.	1.00	1.64	0.64	0.001
18	Teacher uses a variety of lan- guage proficiency instruments and assessment methods for various purposes, for example, determining eligibility, place- ment, monitoring progress, and informing instruction.	1.04	1.48	0.44	0.007
19	Teacher applies a variety of classroom-based assessment tools and methods to inform instruction and monitor academic progress.	1.96	2.56	0.60	0.002
20	Teacher recognizes potential linguistic and cultural biases of assessment instruments and procedures and implements appropriate modifications and accommodations.	1.00	1.64	0.64	0.002
21	Teacher has good knowledge of assessment tools that can be used to document English language learners' progress in various curricular and instruc- tional activities.	1.32	2.08	0.76	<0.001

Table 6Classroom Observation Data: Assessment

potentially driven by the assessment focus of the course offered during the later part of the program. One fairly common theme in the participants' writings was a general frustration with the way externally imposed high-stakes testing (a) pushed teachers to cover curriculum rather than focus on the learning needs of their students and (b) did not have the capacity to effectively evaluate the learning of their ELLs because of linguistic and cultural biases:

Another huge challenge for ELLs (and their teachers) is standardized testing. ELL students are ill prepared to take the difficult assessments required beginning in 3rd grade ... Instead of letting us teach them and give them the time they need to grow and learn, we feel the need to pressure and push them beyond what they are ready to do.

Another significant theme in the late reflective writings was formative assessment and the development and implementation of a variety of classroom-based assessment tools for monitoring ELLs' English language acquisition and their attainment of content-area learning objectives. These included the modification of classroom assessments to allow for the expression of skills and knowledge through multiple semiotic systems, the use of writing (quick-writes, journals) to facilitate oral communication, and the use of student portfolios.

Late classroom-observation data also paint a more promising picture of assessing ELLs both competently and effectively. The observer noticed a more prevalent awareness and consideration of them in all aspects of classroom practice, assessment included. The observer's field notes documented greater incidence of comprehension checks throughout lessons as well as an increased use of informal, formative assessments to monitor the progress of ELLs throughout lesson delivery. The rubric analysis supported this observation, as the differences between the two observations were statistically significant for all items in this category at the 0.01 level (see Table 6).

Focal Participants, One Year Later. One year after participation in the program, an overwhelming majority of the completers studied did demonstrate some level of competency with relation to assessing English language learners. One participant noted that she now taught content in "chunks" and included more formative and informal assessments throughout the lesson, providing greater opportunities for her students to successfully demonstrate their learning. Another participant reported increased awareness and implementation of varied informal assessment tools. While the observer made note of an increased awareness of diversity in the classroom reflected through the participants' classroom practice, the observation rubric average for this category was an underwhelming 1.65 (toward *somewhat evident*) for the category.

Classroom Practice

Early Program Data. Participants were asked in the pre-program SK to report on their knowledge and understanding of how to apply, identify, and analyze instructional practices. Similarly to the other categories, the question-by-question analysis of this early data produced averages over 3 (*disagreement*) in this category (see Table 7).

Item	Classroom practice	Early program data	Late program data	Before to after change	P-value: Test of marginal homogeneity
22	I apply principles of second language instructional tech- niques to the development of lessons and activities.	3.17	1.79	1.38	<0.001
23	I identify and analyze aspects of an English-dominant learn- ing environment and institu- tional practices that impact the academic achievements of linguistic-minority students in mainstream settings.	3.04	1.67	1.37	<0.001

Table 7 Survey of Knowledge Data: Classroom Practice

The participants' early reflective writings included only minimal evidence of the application of second language instructional techniques to the development of lessons and activities. Despite emerging understandings of major concepts from applied linguistics and second language acquisition, participants appeared to mostly be grappling with conceptualizing how this newfound knowledge could be applied within their instructional contexts rather than with actually applying it. Also, participants began to identify aspects of their educational contexts that could have limiting effects on the ELLs, such as curricular and testing pressures.

Early classroom-observation data revealed that only a modest number of participants demonstrated a focused and mindful attention to planning, implementing, and supporting English language learners through classroom practice, and even fewer who demonstrated the ability to analyze the English-dominant learning environments and instructional practices that typify mainstream settings (see Table 8).

Late Program Data. The post-program SK data revealed the participants' perception of a growing ability to apply instructional techniques and practices to support ELLs. The question-by-question analysis yielded averages below 2 (toward *agreement*) in this category (see Table 7). There were significant differences after the course intervention at the .01 level in both questions within the category.

The study participants' reflective writings during the later part of the program included numerous references to implementing principles and techniques learned through their course work. Much of this work was traced in their reflective reports on the inquiry projects that

Table 8 Classroom Observation Data: Classroom Practice

Item	Classroom practice	Early program data	Late program data	Before to after change	P-value: Test of marginal homogeneity
22	Teacher applies principles of second language instructional techniques to the development of lessons and activities.	1.36	2.20	0.84	<0.001
23	Teacher identifies and analyzes aspects of an English-dom- inant learning environment and institutional practices that impact the academic achieve- ments of linguistic-minority students in mainstream set- tings.	1.08	2.04	0.96	<0.001

served as a longitudinal capstone assignment for the program. Some of the most commonly referenced techniques were the use of multiple modalities to facilitate comprehension, concept development, and communication (e.g., picture-/word-card aids for vocabulary development and for communication, picture prompts for writing, and graphic organizers); the implementation of varied groupings for instruction (e.g., small collaborative groups, peer tutoring, purposeful pairings, and whole class); and the use of journaling as a tool for literacy development. Though early implementation attempts were often tentative and not immediately fruitful, most participants reported several successes in the end:

Their quiz and test scores demonstrated a slight improvement over the course of the study, but the potential exists for a greater improvement over the long term. This is demonstrated, much to the instructor's amazement, by the student's insistence on the continued use of the vocabulary anchors for the remainder of the academic school year.

The biggest shock to me is how my ELL's have reacted since I placed them in a group containing fluent English speaking students. At first it took some time for them to adjust to their new group-mates. ... After about a week I noticed things starting to change. My ELL's are taking risks now and sharing their opinion with their group. Their participation in class discussions is also

starting to increase. Based on what I have seen so far, I believe this grouping will be my highest participation total yet.

In the post- observation of participants' teaching, the observer found strong evidence of growth in the application of second language instructional techniques to classroom practice (see Table 8), plainly witnessing an impact of the program's focus on providing a modified, appropriate classroom environment for all students. Notably, both areas in this category demonstrated growth of almost a whole point, and the comparisons were statistically significant at the 0.001 level.

Focal Participants, One Year Later. One year after participation in the program, a majority of the focal participants did demonstrate some evidence of working to appropriately scaffold culturally and linguistically diverse students in their classrooms. While the evidence was, again, not overwhelming (rubric score average for the category was 1.62 out of a maximum of three), both participant action and thought processes, as probed through personal interviews, did reveal a more concerted effort to provide individualized instruction, scaffolding, and simple instructional modifications to make content more comprehensible.

The impact of the program on participants' classroom practice was deeply discussed in each of the focal completers' interviews. Generally, participants felt strongly that the program directly benefited their work with ELLs in terms of instructional "best practices" as well as through relationship building. Two participants noted self-discovery of the fact that through employing ELL-appropriate instructional strategies, all students could directly benefit. Thus, they thought that learning how to better teach ELLs allowed participants to fine-tune their craft for the benefit of their increasingly diverse classroom populations, in all senses of that term. Another participant stated that she gained the ability to better understand and connect with her students in the classroom, and, through that, better tailor instruction to the needs of individual students.

Discussion

There is little doubt that the need to prepare mainstream classroom teachers to work with culturally and linguistically diverse learners is at a critical juncture. It is imperative that all educators have a firm foundation in understanding the challenges faced by ELLs and a secure grasp in applying classroom strategies that support their English language learning, literacy, and academic success. The challenge lies in what constitutes this professional development. Much has been written about the necessary curriculum components, and several researchers have commented on the need to provide long-term professional support for teachers trying to make these postive modifications to instructional practice (Ballantyne et al., 2008; Lucas, 2011; McGraner & Saenz, 2009; Samson & Collins, 2012; Working Group on ELL Policy, 2009).

The evidence is strong that participants in this study grew in their capacity to understand and support ELLs as a result of their involvement in the MODELL Instruction program. The pre- and post-program surveys of knowledge and reflective writings revealed positive changes in the participants' ability and confidence in providing the kinds of learning environments that will significantly affect ELLs' language and literacy development. This was also reflected in the participants' instructional practices toward the end of the program. However, the classroom-observation data collected one year after completion of the program exposed some incongruence between the focal participants' self-reports in the interview data and the actual implementation of knowledge and instructional strategies used to support ELLs. This finding is particularly worrisome because the focal participants seemed to be completely unaware of the attrition of TESL practices from their teaching practice. This situation may lead to a false sense of expertise and of their ability to appropriately respond to the needs of ELLs, and it may in effect serve as a limiting factor in the learning of the ELLs in their classrooms. Some possible explanations for the regression of application one year after program participation (as derived from interview data) could be due to new student populations, changes in teaching assignments, or new school district mandates blocking attempts to focus on ELLs. Nevertheless, this discrepancy highlights a concern about teacher training and development and its long-term efficacy in unstable instructional environments.

In addition, evidence is emerging about the need to provide professional-development opportunities that go beyond the individual mainstream classroom teacher who has ELLs. Many of the participants recognized that supporting ELLs is not something they can do on their own, and that there is a need for some kind of collaborative effort between them and other ESL support personnel. The frontloading of the kinds of knowledge and experiences in a program such as MODELL is a key component to this collaboration, but there also needs to be a strong relationship between all educators working to support ELLs. This collaborative relationship would provide muchneeded continuity between the mainstream classroom and the ESL support program by delivering a team-based, coherent, and comprehensive educational experience for ELLs. From the data in this study, it is clear that even long-standing, continuing development requires the kind of sustainability that can come only from collaborative networks and training that provide the kinds of scaffolding needed to make for permanent change.

Last, our data point to a need to perhaps rethink professional-development programming for teachers. It is known from research that the current practice of providing short-term, one-shot training does not work (McGraner & Saenz, 2009). However, even longer, more indepth programs such as MODELL may not be enough to provide the kinds of shifts in knowledge and practice that are needed to substantively support the development of ELLs' language and literacy skills. A shift to a constructivist approach to development with ongoing, multiple-year support that is persistent, data driven, and reflective may be warranted to effect sustained instructional transformation.

Study Limitations and Implications for Further Research

Several limitations need to be acknowledged when considering the findings of this study. First is the small number of study participants, which disallows generalizations to a particular population. Nonetheless, as discussed in the methods section, the findings of this research can be used to inform other attempts at teacher professional development and teacher preparation for working with ELLs in mainstream classrooms.

Another limitation is the voluntary nature of the professional program whose impact was examined in this study. As the number of students of diverse linguistic and cultural backgrounds is expanding in public education, the need to effectively train all teachers to work with their diverse students is also becoming more urgent. It may therefore be tempting to transpose these findings to mandatory professional development for ESL education. However, the fact must be acknowledged that the study participants actively sought the kind of training offered by this professional-development program, which may have influenced both their commitment to the program content as well as their willingness to apply their newfound knowledge in their instructional practice.

Given the findings and the study limitations identified above, several different issues must be addressed with further research. First, larger-scale studies of similarly purposed professional-development programs would be helpful in producing findings that are generalizable and replicable to other contexts. In addition, long-term ethnographic case studies could help shed light on the problem of content and strategy attrition found in the follow-up phase of this study. Finally, given the ubiquity of teacher professional programs and the pressing needs they are tasked to address, it is important to continue doing further research to help answer questions regarding what constitutes adequate and effective professional development that has desirable and long-lasting impact on participants' teaching.

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