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Latino English Language Learners in Middle School and the Effect of General Education Teachers' Use of the Lesson Study Collaborative Model

Chauncey Dante Reese
Walden University

Walden University

COLLEGE OF EDUCATION

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Chauncey Dante Reese

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Dr. Kathryn Swetnam, Committee Chairperson, Education Faculty
Dr. Paula Dawidowicz, Committee Member, Education Faculty
Dr. Mary Howe, University Reviewer, Education Faculty

Chief Academic Officer

Eric Riedel, Ph.D.

Walden University
2012

Abstract

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By

Chauncey Danté Reese

M.A., University of Phoenix, 2005

B.S., Cameron University, 2001

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

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Abstract

General education content teachers in an urban middle school are responsible for the academic performance of Latino English language learners (ELLs) but lack specialized training in language acquisition. The purpose of this qualitative case study was to investigate content teachers' use of the lesson study collaborative model in teaching Latino ELLs. The theoretical framework of cooperative learning and the lesson study planning model guided this study. The research questions addressed the specific English as a second language (ESL) conversations and planning that occurred in interdisciplinary team meetings and lesson study implementation in teaching practice and student performance. Typological analysis of multiple observations and written participant reflections were used to generate patterns for predetermined and inductive typologies. The findings indicated that interdisciplinary teaming did not include collaboration or planning for differentiated instruction prior to implementation of classroom lessons. The findings indicated features of lesson study that facilitated professional growth through learning from the instructional practices of peers, new understandings of lesson planning and design, and the feasibility and necessity of ELL differentiation in content area instruction. Lesson study provided teams the structure and focus to prepare specific learning outcomes for Latino ELLs. It is recommended that educational policymakers explore the lesson study model as a requirement for all content teachers instructing ELLs. The implications for positive social change include (a) improved teaching and learning conditions of Latino ELLs and (b) the national issue of Latino dropout could be addressed from an instructional perspective.

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ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

Dedication

This work is dedicated to my grandparents, Riley and Seiko, who instilled in me the pursuit for education. This work is also dedicated to my son, Edgar, with whom I enjoy the blessings of parenthood and friendship.

Acknowledgments

I would like to acknowledge the administrators and teachers whose participation made this study possible. I extend my heartfelt appreciation to my doctoral committee members: Dr. Kathryn Swetnam (Chairperson), Dr. Paula Dawidowicz (Methodologist), and Dr. Mary Howe (URR). You not only supported this work, you supported me, through your competence, care, and commitment. I also would like to thank my best friend of 20 years, Natasha, who provided encouragement and counsel throughout this pursuit. Finally, I must acknowledge my brother and sister, Lamont and Keiko, for their unconditional love and gentle reminders.

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Section 1: Introduction to the Study

From dirt roads to the information superhighway, American public education has become a large platform for politics and media scrutiny (Alliance for Excellent Education, 2007). Referred to as an "especially contentious field," (Rebell, 2008, p. 1) the educational system has undergone many reforms to meet the needs of an evolving and diverse citizenry. The mandates of the No Child Left Behind Act (NCLB) of 2001 held all public schools accountable in demonstrating progress to meet the academic goals outlined in specific domains of instruction in the overall population by subgroups (U.S. Department of Education, 2004). Standardized testing was a component of this accountability and a determinant of promotion and graduation (Texas Education Agency, 2003). Another performance indicator of the American education system was the number of students in subgroups who successfully completed the K-12 system (Fry, 2003).

Latino students, of which 45% are English language learners (ELLs), had two national first-place finishes: the fastest growing school-aged populace and the highest dropout rate (Alliance for Excellent Education, 2007; Daniels & de Castro, 2007; Jones & Bou-Waked, 2007; Kimball, 2005; Rebell, 2008; U. S. Department of Education, 2007). According to the research of Kochhar, Suro, and Tafoya (2005) of the Pew Hispanic Center, the Latino population will triple in size between 2005 and 2050, accounting for 29% of the population compared with only 14% of the population in 2005. American public schools would undoubtedly be responsible for teaching a large portion of this increase (Rebell, 2008).

The requirements and performance standards placed on public schools under the auspices of NCLB meant the academic needs of the Latino student needed attention. The reality being, these same students would either be entering post-secondary education or the workforce with the skills and knowledge they received from their school experiences. In 2001 alone, the Hispanic dropout rate was 21.1% for students aged 16-19 years, while the dropout rate was 6.9% for non-Hispanic students of the same age range (U.S. Census Bureau, 2006). In 2005, this percentage rose to 22.4% for the same Hispanic population (Jones & Bou-Waked, 2007). In Texas, every year more than 135,000 of the state's 1.2 million secondary students drop out before graduation and slightly less than 50% of Latinos graduate (McNeil, Coppola, & Radigan, 2008, p. 2). These data show that the Latino subset's graduation and dropout rates under NCLB warranted a response from public school systems.

The state of academic performance for Latino and English as second language (ESL) students provided an opportunity for programs such as bilingual education and ESL to be evaluated and audited to ensure a poised position for public education's student receipt and effective design model for four-year graduation. An empirical study by Lofstrum (2007) revealed that the added controls of English proficiency and ESL were "variables found to affect dropout probability" (pp. 18-19). Data for the generational subsets of Latino students also yielded variances. First-generation Hispanics, meaning native-born children of immigrant parents have the following characteristics: immigrate at an older age, had dropped out of school in their home country, had never attended an American school, or had very low English proficiency. Second-generation and third-

generation Hispanics, children and grandchildren of the first generation, were less likely to drop out of school than first generation students due to educational experience and attendance in the U. S. public school system (Jones & Bou-Waked, 2007; Perreira, Harris, & Lee, 2006). In the 2000s, 85% of ESL students were born in the United States to immigrant parents (Public Policy Institute, 2005).

By design, ESL provides linguistic skill sets needed to prepare Latino students for college or their roles as contributors and participants in various echelons of society. However, standardized testing of these skill-sets among subgroups revealed an academic achievement gap ever-widening between ELLs who lack English proficiency and other tested subgroups. With standardized testing a mainstay, ESL programs benefitted from collaboration with general education teachers who shared the responsibility of teaching the Latino ELL. As Johnson (2003) stated, “collaboration improves the quality of student learning by improving the quality of teacher’s teaching” (p. 337). Another factor influencing ELLs was the national trend of ELL classrooms being taught by inexperienced teachers who did not have the pedagogical training necessary to raise the academic performance of ELLs (American Federation of Teachers, 2006). Short, Himmel, Echevarria, and Richards (2008) reported that “many teachers are not being prepared to make content comprehensible to ELLs who are not proficient in the language of instruction, English” (p. 1). This factor will be described in further detail in Section 2 as the collaborative model’s context is detailed.

Problem Statement

Nationally, in the 2000s, Latino students, largely the limited English proficient (LEP) subset, comprised the highest dropout rate of all American public school ethnicities (Kimball, 2005; U.S. Department of Education, 2007). In the context of performance accountability mandated by NCLB a common element associated with factors related to Latino dropout rate was high-stakes testing (Amrein & Berliner, 2002; Bussert-Webb, 2003; Cortez & Villareal, 2009; Haney, 2002; Hicklin, 2003; Jones, 2001). Amrein and Berliner (2002) used archival time series to examine effects of high-stakes testing and found not only that student learning did not improve but also mastery of academic tasks tended to decrease in the presence of standardized testing with increased drop-outs as a consequence. Jacob (2001) used the regression model and discovered that dropout rates are 6.5% higher for students in states with high school graduation tests compared with states without such examinations. Performing with a margin of 40% worse on the Texas state test, Texas Assessment of Knowledge and Skills (TAKS), than non-ELLs, ELLs in grades 9 through 12 dropped out at twice the rate and had twice the retention rates of their peers (Cortez & Villareal, 2009). With high-stakes testing remaining a measure under NCLB, and LEP students receiving bilingual or ESL services, this study explored this instructional cadre's response to the data and responsibility for educating these children to master the curriculum for which they were assessed. Meier, Hawes, Sargent, and Theobald (2005) asserted that as the number of LEP (limited English proficient) students served by either ESL or bilingual education programs increase, Latino dropout rates will decrease. An important indicator of how

well Latino students are faring in the U.S. public school system is the rate at which they drop out of school (Fry, 2003). This study explored the impact of collaborative lesson planning for Latino ESL students in the content area of middle school science.

This doctoral study contributed to the existing lack of literature on the impact of the lesson study model on instruction and student performance of ELLs. This case study provided qualitative data that is useful in understanding the impact that teachers of ELLs experienced in both personal and programmatic ways. ESL program evaluators were informed regarding services and available resources that were utilized to increase Latino students' academic performance on standardized measures. Knowing trends in Latino dropout rates informs educational policymakers in program assessment and prescribing solutions (Fry, 2003). Collaboratively planning and evaluating content area instruction for ELLs provides an instructional program evaluator with information regarding services and available resources that may be utilized by teachers in assisting to increase Latino students' academic performance on standardized measures and ultimately decreasing the Hispanic dropout rate.

The intent of this inquiry was to examine the use of lesson study as a collaborative planning model by junior high general education teachers in order to help increase ESL student learning for standardized tested curriculum. The lesson study model is the collaboratively planned, observed, and reevaluated lesson of a group of cross-curricular teachers. It was used as an instructional strategy to enhance the learning of Latino ELLs in junior high as measured by standardized testing instruments. Bussert-Webb (2003) found "low-income students of color and English language learners quit

school because of the teach-to-the-test curricula that starts in elementary and continues throughout their educational careers" (p. 12). More than decade ago in the 1990s, Harklau (1994) realized this problem and stressed the importance of general education teachers' attention to the needs of ELLs by stating the main objective of mainstreamed classrooms was to move through the curriculum, with no attention to language development, but rather curriculum mastery. If designed effectively, the ESL instructional program's collaboration with the students' other content area teachers may decrease the dropout rate of Latino ESL students after they are promoted from middle school. Editorial Projects in Education (2007) found more than one-third of dropouts are ninth grade students. Increasing the academic performance of middle school Latino ESL students helps curtail the shock that Balfanz and Letgers (2006) described as the time when freshmen realize that personal academic skills are deficient for high school and the student is either retained or drops out. Allensworth and Easton (2007) claimed that performance in ninth grade was predictive of graduation. In Texas where this study was conducted, 135,000 youth drop-out before graduation and slightly less than 50% of Latinos graduate (McNeil, Coppola, & Radigan, 2008, p. 2).

Lesson study collaboration may provide learning benefits to Latino ELLs because the standardized test that has been the challenge for promotion will be mastered and access to content will occur through effective instruction by general education teachers due to an increased knowledge of how ELLs learn best. After implementation of the lesson study model of collaborative planning the deficits within the current course of delivery were exposed for review or action research.

Nature of Study

This qualitative research study examined the process of the lesson study collaborative planning model to determine the strengths or weaknesses of the model for increasing the performance of middle school Latino ESL students on standardized testing. The following research questions guided the study:

1. In what ways does interdepartmental teaming support or not support ELL students' access to content in general education classes?
2. What differentiated instruction for ELL students is discussed and collaboratively planned in team meetings?
3. How do teachers describe the effects of lesson study collaboration upon instructional practice?
4. How do teachers describe the effects of lesson study collaboration on academic performance of Latino ELL students?

The research questions were investigated using a case study to obtain case-specific information from teacher participants. A detailed discussion of this methodology is provided in Section 3.

Purpose of Study

With an increase of ELLs in American public schools (Alliance for Excellent Education, 2007; Daniels & de Castro, 2007; Jones & Bou-Waked, 2007; Kimball, 2005; Rebell, 2008; U. S. Department of Education, 2007), instructional strategies that facilitated second language acquisition required all teachers to differentiate instruction in order to ensure that all learners experienced meaningful, successful learning as

determined by state testing. The purpose of this case study was to examine the lesson study collaborative model as a collegial instructional strategy for content area and ESL teachers to enhance the learning of ELLs and thus contribute to improved student retention and high school graduation.

The research, theories, and articles cited in this study derived from the question of the effectiveness of the lesson study model, which may benefit the ELLs' learning as measured by standardized tests, retention, and subsequent graduation from high school. Numerous reports indicated standardized testing has contributed to the high Latino dropout rate (Amrein & Berliner, 2002; Bussert-Webb, 2003; Haney, 2002; Hicklin, 2003). In addition, secondary schools are designed departmentally and researchers have provided support for the interdepartmental approach of lesson planning and delivery as a strategy to increase student performance (Carrier, 2005; Huang, 2004; Lewis, 2004). With an understanding of how teacher collaboration enhanced cross-curricular goals, ESL students may benefit from programming that is inclusive of multiple exposure points across content areas and increase the academic success for this population. A more detailed discussion of the effects of standardized testing on Latino dropout rates is provided in the literature review in Section 2.

Conceptual Framework

This study was grounded in two paradigms that support instructional collaboration: cooperative learning model and lesson study collaborative planning (Honigsfeld & Cohen, 2005; Ledlow, 1999; Sachs, Candlin, Rose, & Shum, 2003; Smith, Teemant, & Pinnegar, 2004; Stewart & Brandefur, 2005). The cooperative learning

model provided the basis and benefits of collaboration: the lesson study collaborative planning model provided a framework for teacher collaboration and was used to increase academic performance of Latino middle school students.

Cooperative Learning

Born in the social psychological research of the 1920s, cooperative learning did not receive its classroom application until the 1970s (Sachs, Candlin, Rose, & Shum, 2003). Depicted as a group activity in which learning is dependent on a social structure of information exchange between learners in groups (Olsen & Kagan, 1992), cooperative learning "has been adopted as an instructional technique and an area of investigation by teachers and researchers worldwide" (Sachs et al., 2003, p. 1). Cooperative learning was the framework for the collaborative lesson planning. All communication occurred in a group settings, no independent work existed or was included. Planning, execution, observation, and reflections within the implementation phases occurred as a team. A detailed review of the cooperative learning model and its application to this study is discussed in Section 2.

Lesson Study Collaborative Planning

The lesson study collaborative model was implemented through teacher collaboration and team accountability for participation. This paradigm provided a framework for transfer of learning and language acquisition. According to Chokshi and Fernandez (2005), lesson study historically began with teachers developing one goal within one content area. In the research setting, teachers worked in departments and teams independent of an ESL teacher, this model provided an agenda-driven format for

lesson planning and review that allowed input from content teachers and ESL teachers for specific lessons. Section 2 provides more detail of the model and its application for this study.

Definition of Terms

Terms unique to this study are defined here:

Academic teams: This type of team is an interdepartmental organization of teachers who share the same students. This team shares the responsibility of teaching and assessment of a group of 100-150 students (NWREL, 2002).

Content area: Content refers to general education of classes including mathematics, science, social studies, and English (Reilly, 1988).

English as a second language (ESL): ESL programs are those that enable limited English proficient students to become competent in the comprehension, speaking, reading, and composition of the English language through the integrated use of second language methods (Texas Administrative Code, 1996).

English language learner (ELL): English language learners are often characterized as (a) immigrants or refugees who plan to remain in the country or (b) students who may return to their native countries after a period of study (Institute for Cross Cultural Training, 2008).

Latino: The United States Census Bureau (2000) reported a definition of *Hispanic* and background information as:

> A question that asked for self-identification of the person's origin or descent. Respondents were asked to select their origin (and the origin of other household

members) from a "flash card" listing ethnic origins. Persons of Hispanic origin, in particular, were those who indicated that their origin was Mexican, Puerto Rican, Cuban, Central or South American, or some other Hispanic origin. It should be noted that persons of Hispanic origin may be of any race. (p. 1)

For this doctoral study, the terms Latino and Hispanic will be used interchangeably.

Limited English proficiency or proficient (LEP): The U.S. Census Bureau's definition for LEP is the self-assessed ability to speak English less than very well (AMA, 2008). School systems, however, use either oral or written standardized testing to determine proficiency.

Assumptions

In this study, it was assumed that:

1. Participants taught content area curriculum to Latino ELLs without input from an ESL teacher in preplanning.
2. Teachers were forthright when describing experiences about teaching ELLs.
3. The researcher was able to create and facilitate unbiased discussions, data collection procedures, and analysis.

Limitations

By virtue of its qualitative design and subgroup focus, this study had limitations and delimitations to note.

1. The timeframe of the study was a 4-week instructional cycle due to state and district testing calendars that guided curriculum delivery and assessment.

2. Collection and interpretation of data were dependent upon peer relationships and familiarity of the researcher with the site. These procedures, which were influenced by the interpersonal exchanges between the researcher and participants, affected honesty in responses and comfort level in volunteering responses.

Scope and Delimitations

Scope

1. The research sample consisted of middle school, content area teachers of an urban, southern state school district.
2. The lesson study collaborative model was applied only to science content instruction.

Delimitations

1. This study excluded all teachers not a member of an academic team.
2. This study excluded non Latino ELL student subgroups of learners for instructional targets.

Significance of Study

Latino students, of which 45% are English language learners, represent America's fastest growing school-age populace as well as the leading dropout group (Alliance for Excellent Education, 2007; Daniels & de Castro, 2007; Jones & Bou-Waked, 2007; Kimball, 2005; Kochhar, Suro, & Tafoya, 2005; Rebell, 2008; U.S. Department of Education, 2007). It was paramount for educators to explore ways to meet the academic needs of this subgroup of learners to pass the annual high-stakes test.

Studies revealed that the inadequate transition from English for speakers of other languages (ESOL) programs to mainstream classes was detrimental to student matriculation (Hernandez & Nesman, 2004; Watt & Roessingh, 2001). Depending on program design, middle school Latino ELLs are either in sheltered classes where the teacher of record is ESL certified in addition to holding credentials for the subject area taught or in general education classes without an ESL trained teacher. The contribution of this study is three-fold. First, it added to the limited amount of published research on the design of and response to general ESL programming to increase retention and graduation of LEP students. Gandara, Larson, Rumberger, and Mehan (1998) described the instruction of ELLs as a national challenge: "We must recognize that for underachieving Latino youth to adjust to and thrive in mainstream America, they typically must cross multiple cultural boundaries simultaneously: Latino culture, mainstream, middle-class culture, adult culture, peer culture, and school culture" (p. 14). Furthermore, Chokshi and Fernandez (2004) stated, "there is not yet any formal evidence that directly links teachers' participation in lesson study to assessments of student performance" (p. 521). Although this study did not attempt to determine a correlation between teacher participation in lesson study and student performance on standardized measures, information about the lesson study implementation is anticipated to contribute to future studies of lesson study and its relation to student outcomes.

Second, this study suggested an instructional planning intervention, lesson study, which can be used to target the substandard academic performance of Latino ESL students on content area standardized tests. To fully understand the impact of high-stakes

testing on ELLs it was important to understand the relationship of ethnicity and language in this context (Bussert-Webb, 2003). Since this study revealed research that supported advantages, this research may lead to the inclusion of cooperative planning models within the context of a campus master schedule and curriculum design.

Finally, this study provides useful information to public school districts that are searching for ways to increase AYP of its LEP subset on state-mandated tests. NCLB required that 95% of all enrolled students including LEP students participate in a state assessment and furthermore, required a school or district to demonstrate adequate yearly progress (AYP).

Social Contributions

With the influx of school-age Latino immigrants and with the rising Latino birthrate, federal law mandated that public schools receive and respond to the educational needs of this subgroup and get help in providing it subgroups (U.S. Department of Education, 2004). However, society will not only absorb the migrant resident, but also the dropout student. Dropouts would only further strain the economy by imposing a lifetime of costs on society. Adding the costs of Medicaid, incarceration, and loss of revenue, high school dropouts are a financial burden to their communities. According to the research of Jones and Bou-Waked (2007), the dropouts of the Texas class of 2007 over a lifetime will cost taxpayers $377 million. This cost is $48 million more than that same cohort of students costs the nation in wages, productivity, and taxes (Alliance for Excellent Education, 2007). Furthermore, the Alliance for Excellent Education (2006) found that raising the graduation rates of Hispanics to the levels of Whites by 2020 would

increase their earning potential to $310 billion, thus adding considerably to the U.S. economy.

By construct, public education is the education of the masses, in hopes of producing citizens who can live and compete in a global society. This study offers another intervention for the at-risk student. In a literate and technologically advanced society as the United States, Latino students who lack English proficiency are subject to low-end pay and increased challenges for survival (Hao & Pong, 2008; Ramirez & de la Cruz, 2002, Zhou, Vallejo, Tafoya-Estrada, Xiong, 2008). Schools can use existing resources and time to implement a model such as lesson study to maximize personnel and the hours in the school day. If students have an improved school experience, success on examinations that determine promotion, and become multilingual, they increase their potential to become productive citizens, which, in turn, would benefit both their livelihoods and local communities.

Results of this study provided suggestions and implications for social change in school systems experiencing problems of high Latino dropout and high Latino failure rates on standardized tests. Those are provided in detail in Section 5 of this study. According to Nevarez and Rico (2007), models of school reform are considered "independent of context and should be tailored to the practices, values, and needs of schools where Latinos reside" (p. 6). Examining collaborative planning in the instructional program and providing recommendations for evaluation of ESL collaboration across content areas on any campus that serves Latino ELLs changed the course of ESL programming from being solely interventional to being a curricular guide.

Improving the performance of this Latino subset on standardized testing is expected to provide tangible, documented success, increase the access of Latino ESL students to more rigorous courses of study, and lessen the likelihood of economic burden to the local economy.

Summary

Section 1 presented the rationale for exploring lesson study collaborative planning as a procedure of the junior high general education teachers of Latino ELLs. Dropout rates and the influences thereof provided target areas of ESL program design and instruction that helped lower the Latino dropout rate by students passing mandated promotional tests. The cooperative learning theory and the lesson study collaborative planning model guided this study.

Section 2 provides a review of literature underlying current ESL practice and imposing educational policy that was case specific to Latino dropout rates. Section 3 explains the research methodology of this qualitative study. In Section 4, the collected data are presented and analyzed. In Section 5, the conclusions, recommendations for further research and commentary on the process are given.

Section 2: Literature Review

The purpose of this study was to examine the lesson study collaborative model as a collegial instructional strategy employed by content area and ESL teachers to enhance the learning of ELLs. In this section, the literature is reviewed on the experiences of teachers as learners in cooperative group settings and using the lesson study collaborative model to guide that learning. Literature regarding the effect of standardized testing upon Latino students was abundant; however, research detailing ESL program collaboration with general education teachers and response to interventions was scarce to nonexistent. The following topics are covered: a history of the connection between NCLB and ELLs; the two frameworks guiding this study: cooperative learning and lesson study; and the case study methodological approach. Content for this literature review was drawn from these key-words for articles: *dropout, English as a second language, Latino, students, lesson study,* and *teacher collaboration*s, Internet searches of the ERIC, Pro-Quest Education Journals, EbscoHost , and Walden library databases. These key-words for articles were: *dropout, English as a second language, Latino students, lesson study,* and *teacher collaboration*. These words were used to search the following databases: ERIC, ProQuest Education Journals, and EBSCOHost E-books.

History of the Underlying Problem

The NCLB and ELL Connection

Inherent challenges existed in enforcing the NCLB Act of 2001 within ESL programs. According to the National Council of Teachers of English (NCTE, 2007), "As the number of ELLs increased, the politics of English language learning became more

prominent and complicated" (p. 1). As wrote and enforced by NCLB, ELLs are required to (a) meet the same academic standards as native speaking counterparts and (b) be assessed in English if the student has been in the United States for 3 or more consecutive years (Texas Education Agency, 2011). Under this mandate, states must (a) have at least 95% of the total ELL population of the school tested in reading/language arts, math, science, and social studies, and (b) have all of the ELL test scores appear on state data as one ethnic subgroup to be distributed and published by states, districts, and school (Publication Education Network, 2006, p. 1) An area where ESL instruction and NCLB assessment did not correlate was in the testing of students in English. Nonnative speakers have linguistic constraints that hamper their ability to benefit from instruction in English (Abedi, 2004). But NCLB required mastery of English from participants who had not had equal or similar educational and life experiences as the students for whom the tests were designed. According to the legislation, ELLs were expected to master academic content knowledge and acquire a second language simultaneously.

The measure established by NCLB, adequately yearly progress (AYP), was demonstrated in measurable test scores. One of many groups advocating for ELLs in regard to standardized testing is the EdSource, a California-based educational policy organization. In 2004, EdSource stated that "if NCLB goals are to be met and achievement gaps reduced, schools must move beyond the performance only orientation of AYP to understand why results are as they are and how to improve them" (p. 4). EdSource further argued that "ELL subgroups are being left behind and schools and

districts serving significant proportions of ELLs are less likely to meet their AYP goals and more likely to be subject to corrective action" (p. 4).

NCLB ushered in a renewed focus on vigor for the correlation of these assessments to the curriculum it was designed to measure. According to Ormrod (2003), standardized testing assisted educators in guiding the instructional design, diagnosed learning, determined amount of learning, and promoted learning. Ormrod further defined standardized measures as having similar assessment procedures for all students. Even though these measures assessed all students on similar objectives, ELLs do not possess the needed background, schooling, experience, or vocabulary to perform satisfactorily on these examinations as their native English speaking counterparts. Another challenge created by NCLB was that each state was allowed to create assessments, minimally in math and reading, for the purpose of evaluating whether or not its schools were meeting national standards. With each state writing and teaching individual curriculum and developing tests, it was difficult to establish a correlation among schools and states. Hicklin (2003) noted that state accountability systems were the "driving-force" (p. 4) behind standardized testing.

Texas Standard Testing Timeline

The standardized testing accountability system of Texas became the model for the NCLB (McNeil, Coppola, Hielig, & Radigan, 2008).

> The Texas accountability system is an extreme form of centralized management, with a strict hierarchy in which rules and sanctions are set at the top, with every

level of the system accountable to the level above it for measurable performance. (McNeil et al., 2008, p. 3)

According to a legislative brief published by the Latino Education Policy in Texas (2007), standardized testing in Texas began in 1979 with the Texas Assessment of Basic Skills (TABS) test in 3rd, 5th, and 9th grades in math, reading, and writing. The Texas Educational Assessment of Minimal Skills (TEAMS) was introduced in 1984 for 1st, 7th, and exit-level, 11th grade. The 1990s ushered in a new focus on minimal skills to academic skills in the Texas Assessment of Academic Skills (TAAS). Texas is the first state to assess the state-mandated curriculum, Texas Essential Knowledge and Skills (TEKS). This test was replaced by the Texas Assessment of Knowledge and Skills (TAKS). This latter assessment is the last test designed for Texas and is the measure the state received approval by the United States Department of Education (USDE) to use as the indicator for AYP. Texas Administrative Code (2005) stated that ELLs would be exempt from state testing during their first year in U. S. schools; TAKS would be administered all subsequent years.

Effects on Latino and ELL Students

Published research of standardized testing confirmed that minority, low socioeconomic (SES), and LEP students are harmed by standardized testing measures (Amrein & Berliner, 2002; Bussert-Webb, 2003; Haney, 2002; Hicklin, 2003). When other administrative tasks such as tracking students and grade retentions were taken into account and coupled with standardized testing, there were implications for reform within and without the ESL program. Texas instances of Latino testing factors contributing to

dropout have occurred in the following areas: issuance of disciplinary suspensions prior to testing administrations, retention in grades not requiring passing for promotion, tracking students into special education programs for exemptions, or using LEP exemptions (McNeil et al., 2008).

State universities and state-funded centers followed the Latino dropout rate of Texas Latino youth. Hicklin (2003) examined data for test scores using least squares analysis in a one-way fixed effects model in a quantitative study. Hicklin found prior case studies usually "limit the number of students in the analysis" (p. 2) and that "many scholars argue that the unexpectedly weak statistical relationship can be attributed to the indirect effect of limited English proficiency exemptions on testing" (p. 2) which ultimately affected the numbers used for the dropout rate. The purpose of Hicklin's analysis was to test the assumption that higher Latino dropout rates increased the rates of Latinos passing the state exams. This study explored the practice of encouraging low achieving Latino students to drop out so that the average-to-high performing Latino students would raise the passing rate on the state exam. Unlike previous research that focused on the language barrier, Hicklin used the test-takers as the variable. This study emphasized that causal factors of dropout accounted for only one fourth of the variance yielding suggestive evidence that the state's measurement may not be valid and lacks systematic element to explain test takers' variances. Hicklin found that the percentage of Latino LEP students had a strong, negative relationship with the state test's pass rate. This finding supported the assumption that the language barrier was an obstacle for Latino LEP students required to participate in standardized testing.

Bussert-Webb (2003) used quantitative and qualitative articles and personal teaching experience from working in a Texas-Mexico border district to frame a study exploring the implications of high stakes testing upon Hispanic children with limited English proficiency. Bussert-Webb hypothesized the rationale for high-stakes testing as being flawed. Using district data, personal documents, and state data, Bussert-Webb identified themes expressed in a plethora of literature that exposed educational malpractice for SES minority students and ELLs. Bussert-Webb recommended varying the testing instruments and methods. The results yielded a heavy emphasis on teaching to the test, which Bussert-Webb said could be eliminated using "quantitative and qualitative research-based best practices in the classroom to ensure that students not only meet accountability standards but also develop requisite attributes and abilities" (p. 25). The instructional implications Bussert-Webb reported address the challenges current legislation places upon ELLs and school districts under NCLB.

Valenzuela, Fuller, and Heilig (2006) used case study and logistic regression analysis to explore the disappearance (p. 5) of English language learners from Texas high schools. These researchers maintained that Texas had skewed dropout rates because each year a student is missing an answer document from state tests he is considered a dropout. Using state and district data, the study isolated the characteristics of the "disappearing" students to include gender, school location, socioeconomic code, type of school, and test scores. These elements constituted the Latino dropout rate of the 2-year comparison of the study. This research also suggested that Texas had not taken into account the case-specific needs of ELLs. These researchers suggested that the use of the TAKS test had

"caught ELLs in the crosshairs of education policy" (p. 195). As with previous researchers, this study recommended varying the forms of assessment for ELLs to include: grades, portfolios, and class rank (p. 196).

Using an inner-city elementary school and its ELL subset, Wright (2002) used formal interviews, classroom observations, and district and school documents to explore and answer the question how standardized tests affected the ESL curriculum. According to Wright, ELLs citizens who live in low-income neighborhoods and attend either inner-city or rural, migrant worker area schools are disproportionately impacted by standardized measures. Wright's research further indicated that the test was linguistically biased against ELLs. Sentence structure of questioning prompts and time restraints were two test-related hindrances that impaired ELLs' ability to pass the test. The preponderance of the literature indicates there are little positive effects of standardized testing for ELLs (Abedi, 2002; August & Hakuta, 1997; Coltrane, 2002, Reeves, 2004; Rivera, Stansfield, Scialdone, & Sharkey, 2000).

Cooperative Learning

The cooperative learning model was used to frame this study. The cooperative learning discussed in this study was presented from the vantage of teacher as learner, rather than the student as learner. Few researchers have focused on teachers' learning experiences compared to students' learning (Meirink, Meijer, & Verloop, 2007). Birthed in the social psychological research of the 1920s, cooperative learning did not receive its classroom application until the 1970s according to Sachs et al. (2003). Depicted as a group activity organized where learning is dependent upon a social structure of

information exchange between learners in groups (Olsen & Kagan, 1992), cooperative learning has been globally adopted as an instructional technique and an area of interest by teachers and researchers (Sachs et al., 2003). Cooperative learning exhibited the sociocultural perspectives of learning according to Smith et al. (2004), these views were as follows:

1. Knowledge is cultural understanding and competent participation.
2. Learning is social.
3. Teaching is assisting.
4. Performance is situative.

Relatively young compared to other research-based interests in education, ESL instruction provides an opportunity for cooperation to spawn socialization, project-based performance, and acculturation within a sect of the public school populace that statistically contributes to low-performance (Smith et al., 2004). Smith et al. indicated a strong impact on student achievement as well as increased motivation and improved social interactions with adults and peers. Because ESL is not an isolated instructional program, but an integral component of secondary class offerings, cooperative learning will provide a springboard for all stakeholders to contribute and interact around central issues that affect LEP student performance. Each of the four perspectives offered by Smith et al. (2004) was used to examine teachers as participants and learners in this study.

Educational benefits have been documented by research on cooperative learning in various academic settings (Liang, 2004). Liang (2004) noted that cooperative learning

provided an opportunity for content learning by its participants. In this study, cooperative learning was experienced by teachers as they worked together in teams to respond to the academic needs of ELLs under their supervision. The social aspect of teacher collaboration was articulated by Smith et al. (2004): "Learning occurs through internalization and automation of social activities. Individuals actively construct personal understandings and abilities of cooperative interaction and negotiation of shared meanings in social contexts" (p. 39). Smith et al. also stated that cooperative learning provided strategies for becoming an effective and equitable teacher. Cooperative learning was a component of educational pedagogy that may provide general education teachers a structured opportunity to successfully experience ESL accommodating instructional strategies from ESL teachers. ESL specific pedagogy that general education teachers may lack could be acquired through sharing, thinking, and problem-solving with others (Dorn & Soffos, 2005).

Cooperative learning in this study was the lesson planning and evaluation of teachers' lesson delivery by an academic team. Within cooperative learning, teaching "consists of structuring goal-directed learning activities and assisting performance of learners during meaningful and productive social interactions" (Smith et al., 2004, p. 40). Borrowing from the work of Kagan (1992), Ledlow (1999) used the acronym P.I.E.S.G. to focus on the four essential components of group work: positive interdependence, individual accountability, equal participation, simultaneous interaction, and group processing. Each is summarized below:

1. Positive Interdependence- A commitment to success as each person's efforts

benefits the whole group.

2. Individual Accountability- Each member is accountable for contributing his or her share of the task.
3. Equal Participation- All students have to participate in the learning process.
4. Simultaneous Interaction- Encourages face-to-face interaction and promotion of each other's learning by sharing resources.
5. Group Processing- Students are taught how to provide effective leadership, and develop decision-making, trust-building, communication, and conflict-management skills. (p. 4)

Ledlow (1999) showed characteristics that support cooperative learning as an educational benefit to teachers as learners. The interchange of expertise and experience creates instructional options for teachers by maximizing the social context and interaction that naturally exists in the academic team construct in which participants are presently involved. Participants can experience what Jones (2007) described as "positive teacher talk that results in improved student achievement, and increased teacher knowledge and understandings" (p. 2). This study targeted teacher knowledge and understandings in relation to the instruction and assessment of Latino ELLs. No studies were found that contrasted cooperative learning as a model for collaborative learning in educational settings. Cooperative learning was used for the context of the lesson study collaborative planning implementation.

Lesson Study Collaborative Planning

The best way to bring about reform in the classroom is to adopt a model where small groups of educators work collaboratively, focusing on improving daily instruction (Stewart & Brendefur, 2005). Practitioner knowledge becomes professional knowledge when that knowledge is accessible (Hiebert, Gallimore, & Stigler, 2002). This idea was also promoted by Honigsfeld and Cohan (2006) who highlighted the need for in-service teachers to participate in professional development for examination of their practice and to grow in their professional knowledge.

Secondary teachers, who work in departmentalized, subject-driven classrooms, perceive their roles independent from the whole academic system of shared responsibility (Huang, 2004). This situation has teachers teaching content, not children. Typically secondary lesson planning occurs in isolation. This form of isolation limits efforts of improving teaching on broader scales both within and between disciplines (Cerbin & Kopp, 2006). Demographics and learning differences warrant that general education teachers avail themselves of training and experiences that strengthen their abilities to make content comprehensible to all learners under their tutelage. Huang (2004) stated that "It is simply natural that language teachers take care of students' language development and subject area teachers take care of students' subject area content learning" (p. 97). When literacy responsibility is expanded to other disciplines, teachers are challenged to consider the differences of learning between native and nonnative speakers in their classrooms (Carrier, 2005).

A model that reduced the instructional isolation of secondary teachers, but allowed content experts (general education teachers) to work with ESL teachers in a guided, student-centered fashion was lesson study. "Lesson study provides the impetus for teachers to examine current research, pre-assess students based on these findings, plan an effective lesson, broaden their existing understanding of teaching strategies" (Pothen & Murata, 2008, p. 2). Lesson study was also implemented in school improvement contexts because it lent itself to sustained changes in instruction (Richardson, 2001). Fernandez (2005) noted that pedagogy was constructed and expanded when teachers participated in the lesson study collaborative model.

1. In what ways does interdepartmental teaming support or not support ELLs accessing content in general education classes?
2. What differentiated instruction for ELLs is discussed and collaboratively planned for in team meetings?
3. How do teachers describe the effects of lesson study collaboration upon their practice?
4. How do teachers describe the effects of lesson study collaboration upon Latino ELLs' academic performance?

A translation of the Japanese words *jugyou kenkyuu*, lesson study was introduced to the United States educational community by Stigler and Hierbert in 1999 (Lewis, Perry, & Murata, 2006). Lewis et al. noted that U.S. understanding and use of lesson study rests on two published examples of the full lesson study cycle: Yoshida (1999) and Fernandez and Yoshida (1994). With just a few years of familiarity, many U.S.

researchers are “proposing randomized controlled trials, horse-race style comparisons, and other summative research designed to find out whether lesson study works” (p. 6).

According to Chokshi and Fernandez (2005), lesson study began with teachers developing one goal within one content area. Lesson study is characterized by groups of teachers who regularly meet to work on lesson design implementation, testing, and improvement (Stigler & Hierbert, 1999). Figure 1 graphically depicts the lesson study collaborative model. The process is characterized by the following steps: formation of team, focus of study, plan of study, observation preparation, teaching and observation of lesson, lesson debriefing, and lesson reflection and progress (Richardson, 2004; Stigler & Hiebert, 1999).

As shown in Figure 1, the lesson study model is a reciprocal process of constantly reviewing and revising lessons until a team’s desired and articulated goal is reached.

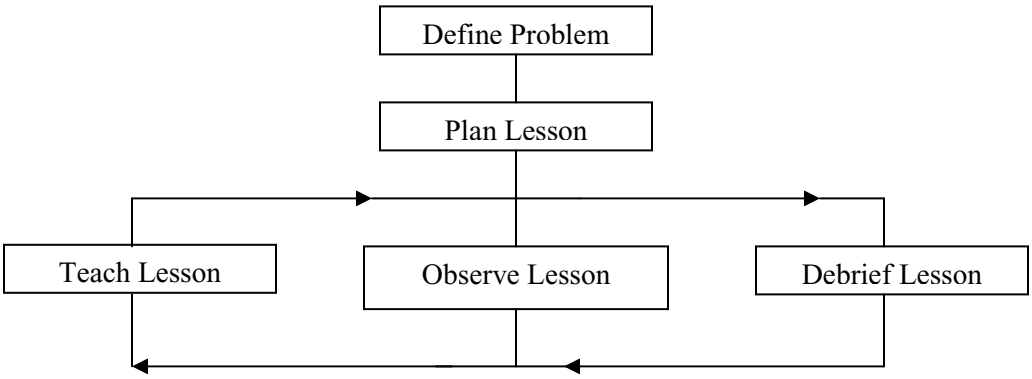

Figure 1. The lesson study model illustrating the reciprocal nature of the process of planning, teaching, evaluating, and reteaching a specific, collaboratively planned lesson.

Lesson study begins with team formation. Teachers are recruited based on those who worked with similar groups of students. One member of each group, usually an individual not teaching at the campus, is designated the “knowledgeable other”

(Richardson, 2004, p. 3). This expert can be an instructional specialist, a college professor, a retired teacher, or a member of the community. This person brings an objective, student-centered view to the team. Once the team has been established, the teachers decide upon the skill or objective that is to be taught. Richardson (2004) cautioned teachers to remember that this lesson should link to other curricula. Teachers use questioning prompts to govern goal-setting such as: How is this unit related to the curriculum? How does this lesson relate to the lesson study goal? This goal can be derived from the existing data or from a larger goal the team has established for student outcomes. After the problem or targeted objective has been articulated, teachers begin actual planning. This planning is where the "bulk of team's work occurs" (Richardson, 2004, p. 3).

In planning, members begin sharing about lesson experiences with the topic. Thinking like the students, questions are posed that will frame a lesson anticipating students' responses. Lessons include four parts: steps of the lesson, student activities, and teacher responses to student anticipated student reactions, and methods of evaluation (Lesson Study Research Group, 2001).

Lesson evaluation is the observation component of lesson study. Observation preparation consists of giving each observer a role so that information recorded from the actual lesson focuses on different aspects of the lesson delivery. Teaching and observing the lesson is the portion of the study that is notated by observers. These notes focus on what the teacher missed during instruction and the conversations students are having about their learning. The protocol suggested by the Lesson Study Research Group (2001)

described observations by notating the following: observers or non-interfering with the natural flow of lesson delivery, observers should stand at the back and sides of the classroom, and observations should be notated on the lesson plan itself.

Debriefing is the next step of the process. This time is dedicated for teams to review findings. Debriefing follows an agenda, and roles of facilitator, timekeeper, and recorder are assigned to keep debriefing focused and moving (Lesson Study Research Group, 2001). The last step, reflection and progress, is when the team decides reteaching should occur or notes should be catalogued for revisits. Instead of immediately meeting to discuss the outcomes of the lesson study, it is recommended that reflection be given time (Lesson Study Research Group, 2001). "Lesson study is far more complex than simply having teachers write lessons together. It is neither lesson planning nor curriculum design in the traditional sense" wrote Richardson (2004, p. 1). This collegial interaction provided a framework for establishing a routine that united the varying levels of education, experience, and expertise existent within a department, campus, or district. "It not only breaks the isolation of individual teachers, but it also makes sure that the learning taking place in these groups is connected and magnified through widespread and diverse links across lesson study groups" (Chomski & Fernandez, 2005, p. 675). Lesson study's sole priority was to ensure student learning not just teacher teaching.

As opposed to traditional study teams of teachers within the same department or grade, using the lesson study model, ESL teachers would be provided an opportunity to work collaboratively with other departments. Each content area objective has the potential to be supplemented with an ESL teaching strategy. The lesson study model

serves as a meeting agenda within the context of collaboration to reduce the "tendency to wander in conversations, talk about specific students' progress, or talk in generalities that did not lead to focused ideas for improving a lesson" (Stewart & Brendefur, 2005, p. 684). Jones (2007) stated that "the level of collaboration determines the depth of new understandings" (p. 32). Lewis, Perry, and Hurd (2004) noted that "U.S. educators are often surprised to find that lesson study in Japan usually begins with an overarching question, such as 'What kind of people do we hope our students will become?'" (p. 3). Lewis et al., also stated that "lesson study addresses students' long-term development--their eagerness to learn, for example, or their concern for others--as well as the content of a particular lesson or unit" (p. 4). Keeping ELLs' learning connected to their personal long-term goals will forge a connection between life and learning.

The teachers' focus facilitates a building of shared professional knowledge that is case-specific for the team's learners and campus. Evidence from published research using lesson study supports a benefit to the ELLs by teachers working collaboratively for authentic contexts designed for school related tasks within content area classes (Lewis, Perry, & Hurd, 2004). Lewis (2004) stated that educators improved instruction through lesson study by: thinking carefully about lesson goals, studying the best lessons, learning subject matter, and developing instructional expertise. Schmoker (2006) warned educators that lesson study collaboration is not needed for every lesson, but "such interaction illustrates how regular opportunities to help one another construct, assess, and refine lessons, units, and assessments could have an impact far beyond each team-made lesson or unit" (p. 113).

After interviewing Japanese educators over the past 10 years and reviewing the U.S. research into lesson study, Lewis, Perry, and Hurd (2004) found "key pathways" to instructional improvement via lesson study: (a) increased knowledge of subject matter, (b) increased knowledge of instruction, (c) increased ability to observe students, (d) stronger collegial networks, (e) stronger connection of daily practice to long-term goals, (f) stronger motivation and sense of efficacy, and (g) improved quality of available lesson plans (pp. 19-21). No published research could be found that contrasted with the lesson study collaborative model (Chokshi & Fernandez, 2004; West-Olatunji, Behar-Horenstein, & Rant, 2008).

Research Methodology

The primary rationale of this study was to examine lesson study as a collegial instructional strategy employed by content area and ESL teachers to enhance the learning of ELLs. The central problem connected to the research was the lack of ESL collaboration with the general education teachers of ELLs. One way to examine the efficiency of this model was conducting qualitative research. Qualitative research, as characterized by Creswell (1998) is a "process of understanding based on methods of inquiry that explore social or human problems" (p. 15). Denzin and Lincoln (1994) described qualitative research as the "study of things in their natural settings, attempting to make sense of the phenomena in terms of the meanings people bring to them" (p. 2). The natural or authentic context of the phenomenon coupled with the interaction between researchers and the individuals studied provides the field study from which social research benefits (Burgess, 1988). Qualitative study is composed of five different

methods based upon foci: ethnography, phenomenological, grounded theory, biography, and case study (Creswell, 2003). Qualitative research was characterized by Wilson (2000) as including less formal interviewing procedures as quantitative research and includes observation, discussion, and analysis of participants' products.

Case study was the method chosen for this study due to the fact that each campus in the school's district is site-based. This means that programming and ESL instructional delivery are not standard across campuses. Isolating the instructional use of lesson study in one junior high school lent itself to a specific relationship between services and students' performance that differed on other campuses. Education is a field that has embraced and increasingly uses case study method for instructional use (Tellis, 1994). Case study can be "representative of a common practice and improves practice" (Merriam, 2002, p. 179). Eisner (1991) stated that case studies detail description capabilities that can provide a model to be used in evaluation of instruction. Flyvbjerg (2006) noted that in instructional contexts, "well-chosen case studies can help the student achieve competence" (p. 222). The "student" in this research study will be the actual teacher-participants.

Research, as defined by Stake (1995) described case study as an in-depth exploration of a program that involves an individual or a group. Yin (1994**)** framed the definition by relating the case study to cotemporary phenomenon within an authentic context when there is no defining boundary between the phenomenon and the context. Believing this context dependence is necessary; Flyvbjerg (2006) stated that "context-dependent knowledge and experience are at the heart of expert activity. This knowledge

and expertise also lies at the center of case study as a research and teaching method or more generally, a method of learning" (p. 222). Providing two justifications for the closeness that case study needs to have with real-life contexts, Flyvbjerg (2006) formulated that "if researchers wish to develop their own skills to a high level, then concrete, context-dependent experience is just as central for them as to professionals learning any other specific skills (p. 223). Tellis (1997) described case study as an incorporation of the views of the "actors" in the case under study (p. 3).

Case study can be designed in multiple or single-case design. Tellis suggested the latter replicable cases are unavailable. Tellis summarized three types of case study designs: (a) exploratory, (b) explanatory, and (c) descriptive. In exploratory case studies, research questions and hypothesis are formulated after the fieldwork and data is collected. In explanatory designs, researchers are seeking causation and often employ pattern-matching techniques. In descriptive case studies, "researchers begin with a descriptive theory, or face the possibility that problems will occur during the project" (p. 5). The "salient point in the characteristic that that case studies possess is its multi-perspectival analysis" (Tellis, 1997, p. 6). Using the acting analogy, Tellis stated that case study, unlike other methods, considers the voice of relevant groups and the interactions between them. Flyvbjerg (2006) stated that an advantage of case study methodology is its ability to close in on real-life situations while testing the views related to the phenomena. Case studies vary from the other four qualitative methods by its focus and intentions.

Although the Latino ELL subgroup is a cultural group, the focus of this research was on the educators of these students, not the students themselves. In an ethnographic

approach, a cultural group in its natural setting would have been observed over a long period of time (Creswell, 2003). This investigation highlighted an instructional strategy used across disciplines, not the experiences of a participant cultural group. A phenomenological approach would have warranted the isolation of one phenomenon and its relationship to the participants. The focus of this research was not to identify a factor (phenomenon) that was contributing to the low performance of Latino students on standardized testing or the high Latino dropout, but rather the composite and comprehensive delivery of the ESL program's service via collaboration.

Grounded theory research would have required the researcher to "derive a general, abstract theory of a process, action, or interaction grounded in the views of participants in a study (Creswell, 2003, p. 14). I was not attempting to derive a theory from participants' views of the issue. Published research demonstrated an agreed upon factor contributing to Latino dropout, standardized testing (Amrein & Berliner, 2002; Bussert-Webb, 2003; Conchas, 2001; Goerdel, 2003; Gordon, Libero, Piana, & Keleher, 2000; Haney, 2000; Hernandez & Nesman, 2004; Hicklin, 2003; Rocha, 2003). This investigation evaluated the planning process of teachers of ESL students. The final tradition, narrative research, lent itself to the publication of this research, but not the investigation. Creswell (2003) stated that narrative research occurs when participants provide stories about their lives in collaboration with the researcher's. Although case studies contain narrative, summarizing the narrative into a few main points is difficult because the case study itself is the result and report (Flyvbjerg, 2006). As in the case of

phenomenology, my lack of experience as a Texas junior high Latino ELL would subtract from the effectiveness and accuracy of this model.

Qualitative Case Studies Related to Lesson Study

Literature databases revealed limited studies using lesson study in a qualitative case study model. Dumitrascu and Horak (2008) noted that more research is needed of the "opportunities, avenues, and facets of learning that participating teachers experience in lesson study" (p. 1). Borko (2004) found that minimal empirical research that described how teachers learn in collaborative settings. The proceeding studies have successfully used the case study approach to improve instructional practice through collegiality.

In an effort to answer if lesson study was in fact an effective model in helping teachers improve their practice, Rock and Wilson (2005) had six teachers participate in a qualitative study and found that "the lesson study process embodies the core features of professional development that have significant positive effects on increased teacher knowledge and skills and changes to instructional practice" (p. 9). After deciding to focus on differentiated reading strategies, the teachers followed the lesson study process. Beginning with writing personal problem statements, the teachers planned an initial lesson. After the lesson was delivered, the teachers spent time reflecting and revising the lesson, teaching it a total of three times. Using interviews, multiple observations, and participators' reflective journals and reflections, Rock and Wilson (2005) found that this collaboration "helped participants learn new approaches to instructing students" (p. 7).

The researchers also noted that lesson study yielded instructional improvement in the areas of instructional vocabulary, differentiation, and high student expectations.

Kolenda (2007) decided to experiment with lesson study collaborative model as a response to educational need in the school district in which Kelenda served as science coordinator. Placing Grades 2 through 11 teachers in teams of three to six by grade level, teachers were trained on the lesson study collaborative planning model. Teachers created a clearinghouse of lesson study based lessons. After completing the process, teachers distributed these lessons to all teachers of that particular grade level district wide. After review of the process and implementation, Kolenda identified the following results: teacher isolation diminished due to increased collaboration, student misconceptions were addressed by each lesson study lesson, instructional practice was improved based on data provided via lesson study instead of left to chance, and positive peer pressure created a demand for staff improvement. Kolenda summed the teachers' experiences by noting that best practices were adopted because action research was being conducted concurrently with collegial planning.

Honigsfeld and Cohan (2006) sought to merge lesson study with the pre-existing Sheltered Instruction Observation Protocol method (SIOP) for Long Island, New York teachers without previous ESL certification or training. Using a cohort of 22 teachers, the researchers facilitated the training and integration of the SIOP method into the lesson study collaborative study model. Teachers had to develop SIOP lessons using lesson study. The study was conducted in three phases. In the first phase, teachers formed teams to develop an instructional research question based upon the teachers' development needs

and the students' learning needs regarding second language acquisition. In phase two, participants followed the lesson study model to create a content area lesson planned to be observed by every member. In phase three, a lesson study report was generated and presented to the other members of the cohort. The purpose of these lesson study reports was to document the lesson study process, describe successes and challenges, and to summarize the debriefing discussions each team held. Data collection came from checklists, rubrics, questionnaires, lesson study reports, interviews, and multiple observations. As a result, the researchers noted changes in teacher cognition about teaching ELLs and second language acquisition. Furthermore, as a collaborative inquiry activity, five out of six teams were able to create a learning community.

Another case of successful adaptation of lesson was documented by Lewis, Perry, Hurd, and O'Connell (2006). Following the implementation of lesson study at Highlands Elementary School over the course of six years, the researchers found that "U.S. teachers can use lesson study to improve instruction" (p. 273). With an initial cohort of 26 teachers receiving stipends for after-school work and funding for substitute teachers, two lesson study cycles were conducted during the 2001-2002 academic school year. Unlike previously published cases, the Lewis et al. study involved a campus-wide approach to lesson study. At the Highlands school, the faculty selected a research theme and each lesson study cycle consisted of a study of relevant background materials. Now with lesson study institutionalized, the principal has provided 2 hours per month within the school day for lesson study and handles the administrative tasks of school business in other ways.

At the Highlands school, Dumitrascu and Horak found that lesson study has replaced the evaluative observations for tenured teachers and provides the vehicle for mentoring due to the inclusion of both experienced and novice teachers on lesson study teams. Teachers within this study commented that lesson study has helped transform total school culture by groups of teachers conducting and sharing investigations. Although not able to claim a causal connection between student achievement and lesson study implementation and maintenance, Highlands has noted increased in standardized test scores for their students who have remained on the campus since implementation of the lesson study model compared to other district schools.

Seeking to answer what changes occur in a teacher's knowledge for practice, of practice, and in practice, Dumitrascu and Horak (2008) conducted a case study of lesson study implementation. These researchers' goal was to "analyze teachers' understanding of mathematics content and of teaching math to Latino students with the incorporation of linguistic and sociocultural resources" (p. 2). Beginning with four middle school math teachers, the researchers conducted three complete lesson study cycles. After completing one cycle, the participants presented their experiences to a national conference. The preplanning for this performance involved the participants, of their own accord, using lesson study model stages to finalize their presentation. After witnessing this extension from classroom to professional development, the researchers decided to add a new stage, reflection, to the end of the lesson study process as an adaptation.

Within the research cycles, participants experienced changes in employment that left the researchers with only one original member by study's end (Dumitrascu & Horak,

2008). Basing their analysis on the changes occurring in the remaining participant, teacher X, the researchers used activity theory. They found that in the first lesson cycle, teacher X was exposed to new perspectives of teaching fractions through the research articles the teachers read to prepare the initial lesson. The second cycle provided teacher X with a new aspect of teaching, teachers working through all activities that was to be presented to students. Noting the reflection statements teacher X made in debriefing sessions of lesson study, the researchers found that "lesson study had a strong potential to support teachers' cumulative growth which should be our aim for a more effective professional development program" (p. 16).

With the argument that current practice of lesson study is misled, Lewis, Perry, and Murata (2006) suggested that research using lesson study should consider three recommendations. First, the researchers stated that with only two available cases of the full lesson study cycle, the descriptive knowledge base of lesson study needs to be expanded. Citing the dissertation of Lesson Study founder, MakotoYoshida, and a popular videotape, *Can You Lift 100 Kilogram?*, Lewis et al., stated that "limiting the research and practice to the local school, the broader application of lesson, its features, and adaptations are compromised and limiting to the diverse setting of public education" (p. 4). Secondly, the researchers suggested a need "to explicate the mechanism by which lesson results in instructional improvement" (p. 5). Lewis et al. argued that the teachers' understanding and subsequent implementation of lesson study was based on the premise that lesson study improved learning because lesson plans were improved. However,

Lewis et al. submitted that lesson study was innovative in that teachers' knowledge, commitment, community, and resources were expanded.

Finally, Lewis et al. (2006) advocated the testing of design-based improvement using lesson study. Participants and researchers are encouraged to "build theory about how it [lesson study] works" (p. 5). These researches argued that the replication of lesson study based on just two examples challenged the opportunity to improve lesson study.

Summary

This section reviewed the limited literature related to the frameworks from which this study is based and the research focuses. First, a history of the NCLB and ELL connection was presented. The relationship of ELL accountability required by NCLB was explained and followed by the historical use of standardized testing measures in Texas as well as the effect of these assessments had upon Texas Latino students and ELLs. Two quantitative studies, one mixed methods study, and one qualitative study were used to characterize the impact standardized testing has had upon ESL Latino dropouts.

This introduction was followed by a review of literature of two frameworks guiding this study: cooperative learning and lesson study. The components and classroom implications of these models were discussed. A review of the research methodology is also included with examples of published research utilizing case study qualitative method as a means of investigating lesson study and its impact upon instruction and learning. Section 3 details the study's methodology and design.

Section 3: Research Method

The purpose of this case study was to examine the impact of the lesson study model as a collegial instructional strategy employed by content area and ESL teachers to improve the learning of ELLs as measured by standardized tests. Researchers have established that low scores on standardized tests are a key indicator of Latino dropout (Amrein & Berliner, 2002; Bussert-Webb, 2003; Cortez & Villareal, 2009; Haney, 2002; Hicklin, 2003; Jones, 2001). There is a paucity of published research on the general ESL program's response to the problem of Latino dropout and how collegiality between ESL and content area teachers had impacted academic performance of the Latino ESL student subset. As a result, this study sought to describe the experiences of general education teachers using the lesson study collegial model and how that collaboration affected student performance.

The research questions that guided this study are as follows:

1. In what ways does interdepartmental teaming support or not support ELL students to accessing content in general education classes?
2. What differentiated instruction for ELL students is discussed and collaboratively planned in team meetings?
3. How do teachers describe the effects of lesson study collaboration upon instructional practice?
4. How do teachers describe the effects of lesson study collaboration on academic performance of Latino ELLs?

To address the research questions, the case study tradition of the qualitative research method guided this research due to the exploratory intent of the inquiry into instructional practice. Although there is no standard usage for the term (Hammersley & Gomm, 2000), Stake (1995) stated that qualitative research is an in depth exploration of a program, event, activity, process, on one of more individuals. Isolating the instructional use of lesson study in one middle school lent itself to specific characteristics between ESL instruction and students' performance that differed on other campuses and within other contexts of educational research. The focus of this research was on the exploration of teachers' actions within a collegial model, rather than quantifying students' performance; therefore, qualitative methodology was chosen over quantitative. Quantitative would have employed numerical, statistical analyses to prove or nullify a hypothesis.

Selection of a Qualitative Research Approach

The primary purpose of this study was to examine the impact of the lesson study collegial model as a planning strategy employed by content area and ESL teachers to enhance the learning of ELLs. The central problem was the potential lack of ESL collaboration with the general education teachers of ELLs. To examine the efficiency of this model, the qualitative method was chosen.

Qualitative research, as characterized by Creswell (1998) is a "process of understanding based on methods of inquiry that explore social or human problems" (p. 15). Denzin and Lincoln (1994) further detailed qualitative research as an attempt researchers make in understanding phenomena in its natural setting in terms of the

meanings people bring to them. Qualitative study is composed of five different methods based on foci: ethnography, phenomenological, grounded theory, biography, and case study (Creswell, 2003). Wilson (2000) differentiated qualitative study from other methods by noting that there are less formal interviewing procedures as quantitative research and that it includes observation, discussion, and analysis of participants' products.

Although the Latino ELL subgroup was a cultural group, the focus of this research was on the educators of these students, not the students themselves. In an ethnographic approach, a cultural group in its natural setting is observed over a long period of time (Creswell, 2003). This investigation highlighted an instructional strategy used across disciplines, not the experiences of a participant cultural group. A phenomenological approach warrants the isolation of one phenomenon and its relationship to the participants. The focus of this research was not to identify a factor (phenomenon) that contributed to the low performance of Latino students on standardized testing or the high Latino dropout, but rather the composite and comprehensive delivery of the ESL program's service via collaboration.

Grounded theory research requires the researcher to "derive a general, abstract theory of a process, action, or interaction grounded in the views of participants in a study (Creswell, 2003, p. 14). It was not the researcher's attempt to derive a theory from participants' views of the issue. Published research demonstrated an agreed upon contribution factor contributing to Latino dropout, standardized testing (Amrein & Berliner, 2002; Bussert-Webb, 2003; Conchas, 2001; Goerdel, 2003; Gordon, Libero,

Piana, & Keleher, 2000; Haney, 2000; Hernandez & Nesman, 2004; Hicklin, 2003; Rocha, 2003). This investigation focused on the planning process of teachers of ESL students. The final tradition, narrative research, lent itself to the publication of this research, but not the investigation. Creswell (2003) stated that narrative research occurs when participants provide stories about their lives in collaboration with the researcher's. Although case studies contain narrative, summarizing the narrative into a few main points was difficult because the case study itself was the result and report (Flyvbjerg, 2006). As in the case of phenomenology, the researcher's lack of experience as a Texas junior high Latino ELL subtracted from the effectiveness and accuracy of this model.

Case study was chosen as the research method due to each campus in the researcher's district being under site-based decision management. This meant that programming and ESL instructional delivery were not standard across campuses. Isolating the instructional use of lesson study in one junior high school lent itself to a specific relationship between services and students' performance that differed on other campuses. Education is a field that has embraced and increasingly uses case study method for instructional use (Tellis, 1994). Case study can be "representative of a common practice and improves practice" (Merriam, 2002, p. 179). Eisner (1991) stated that case studies detail description capabilities that can provide a model to be used in evaluation of instruction. Flyvbjerg (2006) wrote that in instructional contexts, "well-chosen case studies can help the student achieve competence" (p. 222). The "student" in this research study were actual teacher-participants.

Marshall and Rossman (1999) wrote that case studies are not generalizable in the statistical sense but transferable. They further posited that case study lent itself to the exploration of new territory in which "previous literature may be inadequate for constructing frameworks for the study" (p. 46). With this doctoral study characteristic of new territory, case study descriptors and methods were applied. In an exploratory stance of the phenomenon in relation to collaborative planning, this case study will "attempt to shed light by studying in depth a single case example such as an individual person, an event, a group, or an institution" (Neill, 2006, p. 2). This stance is further supported by Soy's (1997) description that case studies examine "contemporary real-life situations and provide the basis for the application of ideas and empirical inquiry that investigates phenomenon in its real-life context" (p. 1).

Beginning with case selection, researchers then must add validity and credence to this often criticized method by incorporating multiple data sources and techniques in the data collecting (Soy, 1997). The case in this study was the exploration of a junior high's academic teams collaboratively planning for ELLs using the lesson study collaborative planning model. The data collecting was accomplished by multiple observations and written descriptions by participants. In researching this model and interactions, data was collected through verbal and written conversations. In addition, differentiation for ELLs in planning and instructional delivery were observed so that findings would be communicated through rich narrative descriptions. Applying case study to this study provided a sense of range and "clarifies the deeper causes behind a given problem and its

consequence than to simply describe the symptoms of a problem and the rate of occurrence" (Flyvbjerg, 2006, p. 229).

Role of the Researcher

Qualitative research assumes that the researcher is an integral part of the research process (Byrne, 2001, p. 1). This study positioned me as an active participant being the sole data collector and analyzer. With 10 years of instructional experience and 6 years of educational training experience, I am well acquainted with scientifically researched best practices for ELLs and how to make instructional initiatives palatable to teachers. I am a certified ESL teacher who taught 7th and 8th grade at the research site for 5 years and served as chairperson for the ESL department.

With such a high level of familiarity with the participants and the instructional program, I acknowledged that biases could have surfaced that would have projected personal understanding and experience on participants' oral, written, and behavioral contributions. To ensure that my intimate knowledge of ESL instruction and compliance were not unfairly influencing analyses and formulations, participants were debriefed of such points during member-checks. The high level of familiarity did provide me with access to the site as well as the participants. This provided consistency in interviewing, observing, and data collection.

Ethical Protection of Participants

To ensure the rights of the human participants involved in this study, I submitted the research proposal to the Institutional Review Board of Walden University #03-31-11-0033987 as well as the Adelante Independent School District (pseudonym), the district in

which the research was conducted. District permission, campus level approval, and teacher participation were documented on letters of permission and cooperation (see Appendices A, B, & C). I completed the web-based training course, "Protecting Human Research Participants," with certification number 290378 on file and attached (see Appendix C).

Research Context

The research for this study was conducted at an inner-city, Title I, public junior high school located in Texas. The school was given the pseudonym of Adelante Junior High School to protect the confidentiality of participants. The 676 students were comprised of 56.8% Hispanic, 27.1% African-American, 9.5% European-American, and 6.2% Asian. Of these, 17.8% were limited English proficient (LEP). The instructional faculty membership consisted of 15 content area teachers for seventh grade and 13 content teachers for eighth grade. There were three ESL teachers that serviced both grades. This setting was selected because the campus had the district's highest Latino ESL junior high population and represented the district's lowest performing junior high campus in Latino test scores of mathematics, science, and social studies. For the 2008-2009 academic years, the campus was ranked as Academically Acceptable by the Texas Education Agency (TEA) and was participating in state-issued monitoring as a result of 2 previous years as academically unacceptable.

All students, regardless of instructional placement, whether they were in special education, gifted and talented, or ESL were placed into one of three academic teams for both 7th and 8th grade. This gave the campus six teams. Academic teams were composed

of one general education representative for science, social studies, mathematics, English and reading providing 7th grade teams with five teachers and 8th grade teams, four instructors because English was not separated from reading as it was for 7th grade. ESL teachers were classified as an elective teacher and were not included on an academic team but were the teacher of record for state tests in English and reading. The ESL class and service, however, was not a technical elective, but required by state law. Without representation on an academic team, no provision for interdepartmental collegiality between ESL teachers and content area instructors existed within the master schedule for the school day. Furthermore, examination of district and campus professional development plans indicated that little to no opportunity had been provided in increasing Latino ESL student performance through a collegial model.

LEP student performance on the 2007 state's subject area tests, Texas Assessment of Knowledge and Skills (TAKS) is shown in Table 1 with comparison to non-LEP Hispanics of same grade level.

Table 1

2007 Campus Comparison of LEP and Non-LEP Hispanic Students

Subject Area Test	7th Grade LEP	7th Grade Non-LEP Hispanics	8th Grade LEP	8th Grade Non-LEP Hispanics
Reading	44%	69%	55%	75%
Math	48%	65%	35%	57%
Writing	64%	81%	Non Tested	Non Tested
Science	Non Tested	Non Tested	19%	51%
Social Studies	Non Tested	Non Tested	50%	75%

Note. From Texas Education Agency. (n.d.) Academic excellence indicator system.

Table I shows academic gaps in learning by two groups of students who share the same teachers for content instruction, the LEP students and the non-LEP Hispanics. The only teacher not shared by these two groups of learners was the 7th grade writing teacher and the 8th grade reading teacher, these were taught by the ESL program exclusively.

LEP student performance on the 2008 state's subject area tests, Texas Assessment of Knowledge and Skills (TAKS) is shown in Table 2 with comparison to non-LEP Hispanics of same grade level.

Table 2

2008 Campus Comparison of LEP and Non-LEP Hispanic Students

Subject Area Test	7th Grade LEP	7th Grade Non-LEP Hispanics	8th Grade LEP	8th Grade Non-LEP Hispanics
Reading	54%	74%	75%	91%
Math	57%	67%	49%	64%
Writing	63%	82%	Non Tested	Non Tested
Science	Non Tested	Non Tested	14%	43%
Social Studies	Non Tested	Non Tested	41%	73%

Note. From Texas Education Agency. (n.d.) Academic excellence indicator system.

Although most subjects showed progress from 2007 to 2008, LEP students lagged behind their counterparts as low as 10% and as high as 29%. The last year of posted dropout data for this campus's district was the 2006 school year with LEP students accounting for 4.6% of the 6.1% total number of students failing to return to the school campus. In addition to the standardized testing results of the Latino ELLs at this site, 55 students had been retained at least one grade level to date at the time of the study.

Participants

Upon review of the 16 examples that Creswell provided, this study used criterion sampling because it met the condition of participants being representatives of people who experienced the phenomenon. For this study, participants were junior high content area teachers of LEP students and a member of an academic team. This shared experience lent

itself to this purposeful sampling. The teachers were responsible for teaching 120 LEP students of which 110 were Latino attendees. I identified 18 teachers who met the criteria to serve as the focus group.

This study focused on science instruction. Eighth grade science had the largest gap between 2007 and 2008 (Table 1 and 2). Science had been an academic pressure point for years at the target campus and was the subject area that caused the school to be rated low performing by the state. Both 7th and 8th grades had three science teachers each with three support personnel: a facilitator, a TAKS focus teacher, and a teaching assistant.

Data Collection Procedures

After meeting with campus administration, the campus science facilitator, and the science department chairperson to explain the study, I scheduled team meetings with participating teachers to explain the research and participation criteria. The participants were familiar with my presence during team meetings and classroom observations because meetings had already taken place regarding other ESL matters. Subsequently, a list of participating teams was compiled. Meeting times between the teachers and myself were scheduled and consisted of clarification of participation, completion of all applicable consent forms, and a review of the lesson study collegial model.

Initial contact with potential participants occurred during their regularly scheduled academic team planning time, which was a daily 45-minute occurrence. The actual research and participation criteria were explained. Teacher consent forms were distributed. These forms detailed the background of the study, explicit procedures of data

collection, the voluntary nature of participating, and the risks/benefits of the study. The conclusion of this meeting yielded lists of participating teachers and/or academic teams of teachers.

The following visit, the teacher questionnaires (Appendix D) was distributed to participants during their regularly scheduled academic team meeting. The questionnaire was presented to each participant individually to be completed within 15 minutes of the regularly scheduled 45-minute team time. This multiple-choice document served as an instrument that provided descriptive data about each participant: job assignment, academic team experiences, and ELL teaching experience. Once completed, it was turned into me. No discussion took place on findings as this instrument solely served as descriptive data of team membership.

It was also my intent to maximize the school day for the study with respect to participants' times, other assigned duties and campus obligations. Researcher observation of team meetings were conducted during regularly scheduled meeting times already built into the master schedule. For the implementation of the lesson study collaborative model's observation component, regularly scheduled class times were used.

Data Collection

The initial phase of data collection consisted of site access by the campus administrator; consent forms for participants, and individual questionnaires from participants. Select passages from the doctoral study proposal were highlighted and discussed with the campus administrator indicating rationale for site selection, the details of the study, its effects on the daily operation of personnel and resources, and the benefit

for the site. Consent forms were given to participants detailing the participant's right to withdraw at any time without consequence, the purpose of study and data collection procedures, and assurances of confidentiality.

With the goal of understanding the backgrounds and effects teachers experience in a structured, prescriptive collegial model, individual questionnaires were the initial source of data. The questions were framed based on the existing structure of campus academic team meetings as well as the construct of the lesson study model. An initial questionnaire between academic teams and myself were administered on-site to identify levels of collegiality to which the teacher was accustomed, degree of familiarity with the lesson study collaborative model, and experience in instructing ELLs (see Appendix D). I summarized and transcribed the responses on these questionnaires after which, documents were placed in a binder and saved electronically as scanned images.

The second phase of data collection was my observation of a regularly conducted 45 -minute team meeting. During this time, I did not present components nor speak about the study, but observed a regularly scheduled team lesson planning meeting. I collected data using the LEP Reference Rubric (Appendix E). During this initial observation, I tallied how many times an ELL-specific reference was discussed in two domains: instruction and assessment. The instructional domain of the LEP reference rubric had a column for the amount of times teams referenced specifics for ESL instruction: modeling the academic language, English language proficiency standard, use of nonlinguistic representations, higher-order thinking skills, and references to standardized assessment data for instructional decision-making. The assessment domain of this rubric had a

column for informal, formal, progress monitoring, formative, and summative instances of assessment. I listened and observed regularly conducted team meetings and tallied the frequency or infrequency LEP specific instances of discussion and planning that occurred prior to collaboratively planned lessons for ESL student differentiation. This LEP Reference Rubric was used during my initial observations of team meetings and during subsequent observations of regularly scheduled academic team meetings throughout the course of the doctoral study. I analyzed the frequency or infrequency of LEP-specific references occurring as collaborative lesson planning became a part of the team meeting agenda.

At the next team meeting, I introduced the Lesson Study Collaborative Planning Model to the participants. I reviewed the Planning Template (Appendix G) and the Observation Protocol (Appendix H). I answered any questions the participants had concerning the planning and/or team member observation process.

After identifying critical objectives posing the greatest challenge for students, the science teacher or science facilitator selected one objective, if more than one existed, to apply the lesson study model. I had teams complete the planning template (Appendix G) as a group. This planning template served as the meeting agenda and guide for the implementation of the Lesson Study Collaborative Model. By following the steps on this form, participants were actively engaged in the actual collaborative planning process. By answering the questions on this form, participants captured the thoughts, brainstorms, and instructional goals that were observed by team members during at least two executed lessons. Data collected on this template included team members' names, the lesson's

objectives, the actual lesson plan, evidence of student learning (planned assessments), analysis of student assessment data, and instructional changes if lesson were to be re-taught to achieve higher levels of student mastery of objectives.

The lesson planning template served as minutes for these meetings. My original handwritten notes from observing these collaborative planning sessions were placed in a binder with the transcription saved as a computer file on my personal, password protected laptop.

On a subsequent day, following the collaboratively planned lesson, the science teacher of record taught the collaboratively planned lesson from Appendix G with members of the academic team observing the executed lesson using the observation protocol (Appendix H) as a part of the Lesson Study Collaborative Planning Model. Data collected on the observation protocol included the LEP student population of the observed class period, evidence/examples of student understanding of topic/vocabulary, ownership of learning, use of academic vocabulary in class discussions, student engagement, student disengagement, cooperative group dynamics (if applicable), clarity of instructions, and any other substantial pieces of data that aided the team in editing the previously planned lesson to increase student achievement. Each participant brought their completed protocol to the next team meeting. I did not participate in the classroom observation of the executed lesson; rather, I was only a part of the academic team meetings where the collaboration and debriefing occurred.

Team members reconvened during a regularly scheduled team meeting to debrief the observed lesson on a day following the observations. I was present at this meeting to

observe and collect data on the LEP Reference Rubric (Appendix E). I tallied the frequency that LEP-specific references were made during the discussion of findings from the observed lesson and lesson planning process of participants. Teams discussed findings and analyzed student performance on the lesson's objectives and predetermined assessment. If the team determined that student performance could be increased, the team revisited the Planning Template (Appendix G) and made instructional changes for the lesson to be re-taught. If a team determined that reteaching was unnecessary, that team continued with the next learning target and repeated the collaborative planning steps using the planning template (Appendix G) and the observation protocol (Appendix H) for one more science lesson. Observation notes and minutes were saved in a binder with electronic transcription saved as a computer file on my password protected, personal laptop.

Participating teams completed this cycle of collaborative planning, observation, and debriefing for two science lessons, with the possibility of one or both of those being re-taught if the team deemed necessary. Retaught lesson objectives would only be taught and observed once, after which the science teacher of record would have made instructional decisions about that objective independently of the team. The number of observed lessons was determined by the team's decision to reteach a lesson or not.

The final phase of data collection occurred after the completion of the Lesson Study Collaborative Model cycles by all participants. I returned to campus to collect all planning templates (Appendix G) and observation protocols (Appendix H) from all participants on a day after teams all teams had completed implementation. At this

meeting, I distributed the Teaching Impact Template (Appendix I). Data collected on this form included the individual experience of every participant through the entire process of implementation. At their leisure, participants were asked to reflect and write as a recapitulation their experiences using the lesson study collaborative planning model and its influence, either negative or positive on their individual teaching practice and their teaming efforts. Teachers were also asked to articulate their students' performance before and after using lesson study. Following the receipt of indivudal Teaching Impact Templates (Appendix I), I returned to campus to approach participants indivudally for clarificaiton as needed. I conducted a typological analysis and documented patterns on a spreadsheet to be saved as a computer file on my personal, password protected laptop. All handwritten notes and summaries were kept in the research binder.

Data Analysis

Four questions guided this research:

1. In what ways does interdepartmental teaming support or not support ELL students to accessing content in general education classes?
2. What differentiated instruction for ELL students is discussed and collaboratively planned in team meetings?
3. How do teachers describe the effects of lesson study collaboration upon instructional practice?
4. How do teachers describe the effects of lesson study collaboration on academic performance of Latino ELLs?

Data gathered from team meeting observations, team meetings planning sessions, classroom observations, and standardized test scores were analyzed in two veins of analysis: individual and team. The individual analysis looked at the learning process and impact associated with the lesson study experience and focused on the written responses submitted by participating teachers on the Impact Template (Appendix I). The team analysis looked into how the collaborative structure of lesson study facilitated an instructional delivery that impacted ESL student achievement. These data came from observational notes and data specific to student performance in the collaboratively planned learned experiences. Stake (1995) and Wolcott (1994) suggested that case study research identifies themes or issues from the analyses. Data were analyzed from observation notes, written responses, minutes from team meetings, and classroom observations. Creswell (1998) stated that case study analysis "provides a description of the case and its setting" (p. 153). This analysis yielded what Creswell (1998) referred to as the naturalistic generalization, where people can either learn from the generalization or apply it to other populations.

In qualitative research, typological analysis was useful for group studies (Hatch, 2000). It is characterized by the division of total data into categories based on the researcher's predetermined typologies (Hatch, 2000). For the purpose of this study, the use or implementation of lesson study was explored. I followed Hatch's (2000) nine steps for typological analysis:

1. Identify the typology.
2. Read the data, marking entries related to your typology.

3. Read entries by typology, record main ideas in entries on a summary sheet.
4. Look for patterns and relationships within the typology.
5. Read data, coding entries, keep a record of what entries go with which elements of your patterns.
6. Decide if your patterns are supported by the data, search for non-examples.
7. Look for relationships among the patterns.
8. Write your patterns as one-sentence generalizations.
9. Select data excerpts that support your generalizations. (p. 153)

There was a group experience, an instructional experience, and possibly an impact on performance as measured by standardized assessments. These three categories served as domains to place data after all transcriptions have been completed. This process sorted the data into manageable pieces to begin answering the guiding questions. Coded transcripts and notes were entered into Microsoft Word, a word processing software program, permitting an electronic storage and archival system on my personal, password protected laptop.

The first portion of analysis focused on Questions 1 and 2 so that data were coded by the group experience header. I identified patterns based on the way participants answered certain questions or on recurring common characteristics from meeting discussions recorded in the minutes. Forms these patterns could take included: "similarities, differences, frequencies, sequences, correspondences, and causations" (Hatch, 2000, p. 155). Using these characteristics as subheadings, a table was created

placing sentences or quotes from participants into subcategories under the main header group experience.

The second portion of analysis did not focus on particular research question, but rather on the instructional experience header for coding. The lesson study component of the study was the experience participants had in two forms, planning and implementation. Observations were conducted by me in team meetings as a participant. In the daily team meeting, I reviewed notes, agendas and minutes, conversations, and the lesson study template to gather information about the processes and changes the instructors were undergoing to implement the lesson study model and in their attention to and for differentiation for the ELL. At the beginning of the study, during, and afterwards, I used the rubrics from LEP references in one meeting to chart any changes of LEP-specific referencing (Appendix F). Classroom observations were analyzed by observational notes on the protocol as well as checked against the lesson study rubric designed in team meetings. Creswell (2003) stated that this step in analysis involved "displaying multiple perspectives from individuals and be supported by diverse quotations and specific evidence" (p. 194). The notes and discussion garnered from observations created two storylines: (a) planning themes and (b) delivery themes. Quotes and notes gathered during the observations were placed under these two subheadings. Each participant told his story through the contributions his notes made.

To answer questions three and four, a summative written reflection was examined. Question 3 asked how teachers described the effects of lesson study collaboration on their practice. Question 4 asked teachers to describe the effects lesson

study collaboration had upon Latino ELLs' academic performance. I documented these responses (Appendix I).

The dialogue concerning student performance, especially Latino ELLs, would be analyzed to support the qualitative study. The objectives targeted in the lesson study planning were assessed in the classrooms and the science teacher shared how students fared as a result of the collaborative model. The teachers discussed the findings as a generalization of Latino student performance within the context of lesson study produced lesson activities. I did not propose to create a causal relationship of the data and the instruction; the intent was to describe the impact of lesson study on the academic performance of Latino ELLs and experientially by the collaboration's effect on content teachers of academic teams.

The intent of this study was to explore the impact of the lesson study collaborative model on Latino ESL student achievement. The findings from each academic team was reviewed together to understand the impact lesson study collegial model had on student performance through a change in lesson preparation from teacher created to collaboratively planned. With each header being color-coded within a team's data, I looked for commonalities and differences between teams. This portion of analysis summarized the case study of this research context.

Validity and Reliability

Case studies require extensive verification (Stake, 1995). Triangulation and member-checking were two of Stake's (1995) suggestions. Defined as a "convergence of information related to data situations in developing a case study" (Creswell, 1998), it is

"commonly found in qualitative studies" (Merriam & Associates, 2002) and provided the internal validity and reliability. This study's triangulation was composed of a review of the literature, observations, and written descriptions by the participants. The participants' written descriptions lent themselves to triangulation validity by "its nonreactive nature, which removes it from intervening interpretations" (Hatch, 2000, p. 119). Triangulation was achieved through the analysis process to identify themes obtained through a review of literature, multiple observations, and written descriptions.

The second strategy to ensure internal validity was member checking, a process by which participants review the study in process especially portions related to the participants' actions or words (Stake, 1995). As its name suggests, member checking was when participants ensured their words, intentions, and descriptions were accurately portrayed. A safeguard this strategy provided was prohibiting the "inadvertent projection" of the researcher's own experience onto the participants' perspectives (Merriam & Associates, 2002). Participants were provided transcriptions of team meeting observations, responses and personal classroom observations to ensure accurate depiction of intentions and context of reporting. These items were discussed with participants and recorded to correct inaccuracies or misinterpretations. This accuracy provided trustworthiness to the study (Lincoln & Guba, 1985).

The third strategy to ensure internal validity came from the use of published lesson study materials whose authors have granted permission for my use in this study. These instruments located in the appendices have been used in various college programs, pilot studies, action research, and as primary documents by the copyright holders.

Summary

This section introduced the research design and explained the methodology for this qualitative case study. Due to the exploratory intent of the inquiry into instructional practice, the rationale for case study was provided. Details about the research setting and participants were introduced as well as the procedures employed for data collection, analysis, and verification. Section 4 consists of the presentation and analysis of data collected.

Section 4: Results

Findings

The purpose of this case study was to examine the impact of the lesson study model as a collegial instructional strategy employed by content area and ESL teachers to improve the learning of ELLs as measured by standardized tests. This section, which presents the findings of this study, starts with the research process, followed by each teams' descriptive and collaborative data, and then the cross-comparison analysis of all participants' impact templates.

The Research Process

Participants in this study were identified through a list of teachers from the campus administrator. They were general education content teachers of LEP students and members of three of the school's six academic teams: two teams taught 7th grade and one team taught 8th grade. I contacted participants via email or face-to-face to solicit their participation and, if accepted, to schedule an initial team meeting visit to explain the research and criteria for participation and to distribute the consent forms. These forms detailed the background of the study, provided explicit procedures for data collection, explained the voluntary nature of participation, and outlined the risks and/or benefits of the study. At the conclusion of these visits, two 7th grade teams volunteered to participate as a whole group and one 8th grade team volunteered to participate as a partial group.

At the end of the meeting, those who chose to participate completed and signed the consent forms. Questionnaires were then distributed to garner descriptive data about each participant: credentials, teaching experience, familiarity with ELL pedagogy, and

frequency of collaborative planning. The questionnaire was collected at a subsequent meeting (Appendix D). Next, I introduced the Lesson Study Collaborative Planning Model and reviewed both the Planning Template (Appendix G) and the Observation Protocol (Appendix H). I answered participants' about the planning process and/or team member observation process.

I then returned to the site to observe a regularly scheduled 45-minute team meeting. During this time, I did not present components nor speak about the study, but observed a regularly scheduled team lesson planning meeting. I collected data using the LEP Reference Rubric (Appendix E) by tallying how many times an ELL-specific reference was discussed in two domains: instruction and assessment. The instructional domain of the LEP reference rubric had a column for the amount of times teams referenced specifics for ESL instruction: modeling the academic language, English language proficiency standards, use of nonlinguistic representations, higher-order thinking skills, and references to standardized assessment data for instructional decision-making. The assessment domain of this rubric had a column for informal, formal, progress monitoring, formative, and summative instances of assessment. I listened and observed regularly conducted team meetings and tallied the frequency or infrequency LEP specific instances of discussion and planning that occurred prior to the collaboratively planned lessons for ESL student inclusion. This LEP Reference Rubric was used during my initial observations of team meetings and during subsequent observations of regularly scheduled academic team meetings throughout the course of the

doctoral study. I analyzed the frequency or infrequency of LEP-specific references occurring as collaborative lesson planning became a part of the team meeting agenda.

I then conducted two observations of regularly scheduled academic team meetings during the course of the lesson study cycles for all three teams. These team observations each lasted from 30-45 minutes. Not all participants were able to attend all of the observed team meetings. Some participants were absent or had other obligations. Their contribution to the lesson study collaborative model was submitted either electronically or hard copy through the team leader. Only one participant decided to withdraw from the study prior to its completion.

All my observations were recorded via handwritten notes and using the LEP Reference Rubric. Each meeting's notes and work samples were organized by team name and date. I then began organizing the information to construct a summary of each collaborative lesson planning cycle and identifying frequencies and commentary within the scope of the team's experiences.

After observing two lesson study cycles of each academic team I distributed the Teaching Impact Template to all participants in both hardcopy and electronic forms (Appendix I). Data collected on this form included the individual experience of every participant through the entire process of implementation. Participants reflected and wrote a recapitulation their experiences using the lesson study collaborative planning model and its influence, either negative, positive, or not at all on their individual teaching practice and their teaming efforts. Teachers also were asked to describe their Latino ELL students' performance before and after using lesson study.

A case study was chosen as the qualitative method for this study with both triangulation and member-checking as the two verification methods supporting this study (Stake, 1995). This study's triangulation was composed of literature review, multiple observations, and written descriptions by the participants. Triangulation was achieved through the analysis process to identify themes obtained through notes, observations, and written descriptions.

The second strategy to ensure internal validity was member-checking. Participants were shown the statements I wrote on the LEP Reference Rubric that were generated in the debrief observation of the lesson study. Participants were asked to review my notes to confirm or clarify statements and quotes.

The third strategy to ensure internal validity came from the use of published lesson study materials whose authors have granted permission for use in this study. The standardization of the lesson study collaborative model implementation provided by these materials prevented instrument changes for data collection which could have affected the validity of the conclusion. These instruments located in the appendices have been used in various college programs, pilot studies, action research, and as primary documents by the copyright holders.

Descriptive Data and Lesson Study Cycle Summaries

This section presents the team profiles and summaries of each team's lesson study collaborative planning model implementation. There were three participating teams: Team A, Team B, and Team C. The names of the participating teams and teachers have been changed to protect the identities of the individuals.

Team A, Descriptive Data

Team A consisted of five 7th grade teachers, one from each content area: Teacher 1 from mathematics, Teacher 2 from English, Teacher 3 from writing, Teacher 4 from science, and Teacher 5 from social studies. Table 3 below shows the team's profile as generated from the individual teacher questionnaires. Three of the five teachers had 0-5 years' experience teaching with two participants, Teacher 3 from writing and Teacher 5 from social studies having 16-20 plus years. No team member was ESL certified, but the math, English and science teacher had received Sheltered Instruction Observation Protocol training (SIOP). Sheltered Instruction Observation Protocol, also known as SIOP, is a 2-day training for general education content teachers of ELLs in methodologies that target the integration of second language acquisition and content area instruction. Only the math teacher had any specific ESL staff development in the past academic year. The two teachers with 16-20 plus years of teaching experience were the only teachers who indicated that they were "very familiar" with differentiated instruction for ELLs. The other three teachers stated they were "somewhat familiar." The entire team indicated that zero days per week were dedicated to team lesson planning, 0% of team time was dedicated to lesson planning, but 3 to 5 days of each week was dedicated to data discussion. All participants indicated that no peer observations had taken place in the last academic year. All but the math teacher consulted an ESL teacher at some point in the past academic year for lesson planning one to two times: the math teacher indicated that no consults were sought. The math and science teachers had not consulted an ESL teacher for data disaggregation during the past academic year, the English and writing

teachers consulted an ESL teacher one to two times for data disaggregation, and the social studies teacher had three to five times of ESL consult for data. No team member was familiar with the lesson planning collaborative model.

Table 3

Team A Teacher Descriptors

Descriptors	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5
Content	Math	English	Writing	Science	History
Years Teaching	0-5	0-5	16-20+	0-5	16-20+
ESL Training					
ESL Certified	No	No	No	No	No
Sheltered Trained	Yes	Yes	No	Yes	No
Staff Development In the Past Year	Yes	No	No	No	No
Differentiation Familiarization	Somewhat	Somewhat	Very	Somewhat	Very
Days Team Plan Per Week	0	0	0	0	0
Percentage of Team Time for Planning	0%	0%	0%	0%	0%
Frequency of Data Talks days/wk	3-5	3-5	3-5	3-5	3-5
Frequency Peer Observation	0	0	0	0	0
Frequency of ESL Consult for Lessons times/yr	0	1-2	1-2	1-2	1-2
Frequency of ESL Consult for Data times/yr	0	1-2	1-2	0	3-5
Familiarization with Collaborative Plan	Not	Not	Not	Not	Not

Team A, First Observation

I listened to and observed a regularly conducted team meeting and tallied the frequency or infrequency LEP specific instances of discussion and planning that occurred prior to the collaboratively planned lessons for ESL student inclusion (see Appendix E). The content of discussion of Team A during this observation did not include any specific references for LEP students in any of the domains. This team meeting was administrative in nature and campus-based issues were discussed as well as end-of-the-year procedures for team awards and an upcoming field trip. This team meeting was the only one observed prior to implementation of the lesson study collaborative model.

Team A, Second Observation, Lesson Cycle I

The team's second observation occurred after the team had participated in the lesson study collaborative model. The team collaboratively planned a science lesson on human body systems by following the steps of the lesson study model: formation of team, focus of study, plan of study, observation preparation, teaching and observation of lesson, lesson debriefing, and lesson reflection and progress (Richardson, 2004; Stigler & Hiebert, 1999). The last two steps, lesson debriefing and reflection and progress, were the agenda items for my observations. The first five steps of Team A's first cycle of the model are summarized in the following paragraphs.

This lesson on human body systems was chosen as a review for the end-of-year 7^{th} grade science exam. The learning objective of the lesson was to have students demonstrate their knowledge of the human body systems by playing a review game. The language objective was for students to demonstrate knowledge of body systems through

group discussion, reading, and writing. The team determined that the long-term qualities supported by this lesson would be the understanding of body systems and the systems' relations to everyday experiences. The steps of the lesson were as follows: a 10-minute warm-up, a 5-minute quick check of prior knowledge, and a 30-minute quiz bowl review. The lesson was designed to help students achieve the learning goal by providing opportunities for individual and group discussions with immediate teacher feedback on submitted responses. Team A decided that an informal assessment would be conducted by checking students' and groups' responses on white boards. The team decided that peer observers would focus upon the students' understanding of the content, teacher delivery, and students' grasp of the concepts in observed group discussions.

This collaboratively planned lesson was observed by three of the team members. One teammate was the actual teacher observed and one teammate was ill and did not participate in an observation of the lesson. Team A chose to have all observations and debriefs occur on the same instructional day to provide immediate feedback to the observed teacher and maximize instructional time if a reteach of the lesson was warranted. Team A's LEP Reference Rubric, completed during this lesson's debrief and reflection for their first cycle of lesson study, is presented below as Table 4.

Table 4

Team A, Cycle I, LEP-Specific References in Academic Team Meetings

Domains	Number of LEP References
Instructional Domain	
Modeling	6
English Language Proficiency Standards	7
Nonlinguistic Representation	4
Higher-Order Questions	2
Differentiated Instruction	0
Assessment Domain	
Informal	1
Formal	3
Progress Monitoring	0
Formative	0
Summative	1

In the instructional domain there were five categories on the rubric: modeling, English language proficiency standards, nonlinguistic representation, higher-order questions, and differentiated instruction. Within the modeling category there were six instances of LEP references. Teammates discussed how LEP students explained definitions to native English peers, asked questions of each other for clarifications,

participated in structured controversy discussion activity, used the appropriate academic vocabulary in discussions and responses, clarified specific information with teachers, and used their science notebook as a homework activity for writing and reflection. In the English language proficiency standards category there were seven LEP references. The team discussed the scaffolding provided through the lesson's warm-up activity, the activation of schema through the warm-up, the heterogeneous grouping provided for ELLs to have access to English-speaking models, the lack of need for primary language supports (i.e., bilingual glossary, translations, etc.), the alleviation of "guessing" due to cooperative group participation, increased processing time for ELLs in groups, and the limitation of distractions for ELLs due to the cooperative grouping being self-selected.

The nonlinguistic category had four LEP-specific references. The team discussed the use of the white boards for game responses, how ELLs answered more questions than native English speaking students, and the need for more whiteboards in order for individual responses to be recorded rather than group answers. Although the planned technology integration was unavailable due to malfunction, ELLs still participated and demonstrated understanding through the manipulative white board. The higher-order questions category had two LEP-specific references. The team discussed the comprehension objective being low-level in regard to critical-thinking, however, they observed how the science teacher raised the order of questioning by requiring students to create definitions for terms in students' own words. The differentiated instruction category did not have any LEP-specific references during this observation.

The second domain on the rubric was assessment. The categories within this domain were informal, formal, progress monitoring, formative, and summative. The informal assessment category had two LEP-specific references. The team discussed that accountability partners were used in the lesson and there was a fill-in-the-blank reference document for ELLs to use for vocabulary comprehension. The formal assessment category had three references. The team noted that the use of the white boards, a thumbs up/thumbs down check for understanding activity in which all students participated, and the teacher's reteaching for ELLS who demonstrated need from their responses. The progress monitoring and formative assessment categories were not referenced during this observation. The summative assessment category had one LEP-specific reference and concerned the placement of this lesson as a review for the end-of-year science exam.

After sharing all of the statements from their observation field-notes, the team decided that the lesson was taught and assessed satisfactorily, without a need for reteaching. This completed the team's first lesson study cycle.

Team A, Third Observation, Lesson Cycle II

My third observation of this team occurred after the team collaboratively planned a science lesson on earth and space. The team followed the steps of the lesson study model as aforementioned in the summarization of the first cycle. Team A's second cycle of the lesson study collaborative model is summarized in the following paragraphs.

The learning objective of the lesson required students to explain the physical and chemical characteristics of the Earth and other planets of the solar system. The language objective was for students to demonstrate knowledge of earth and space by reading,

writing, and speaking to answer questions. The team determined that the long-term qualities supported by this lesson would be the understanding of the physical and chemical characteristics of the solar system (i.e., Earth is the only planet that can support life.) Also, this understanding is one of the basic foundations for higher level science (astronomy, chemistry, and so forth). The steps of the lesson were as follows: a 10-minute warm-up, a 30-minute tech lab, and a 5-minute summarization. The lesson was designed to help students achieve the learning goal by providing interactive activities. The Team predicted that students would respond to the lesson by having positive responses because this was a high-interest topic for this team's students. Team A decided that using an interactive science notebook would be the evidence of student learning and that peer observers would focus on student engagement and interest.

For the second cycle, all five academic team members were able to participate. This collaboratively planned lesson was observed by four of the team members. One teammate was the actual teacher observed. Team A chose to have all observations and debriefs occur on the same instructional day to provide immediate feedback to the observed teacher and maximize instructional time if a reteach of the lesson was warranted. Team A's LEP Reference Rubric, completed during this lesson's debrief and reflection for their second cycle of lesson study, is presented below as Table 5.

Table 5

Team A, Cycle II, LEP-Specific References in Academic Team Meetings

Domains	Number of LEP References
Instructional Domain	
Modeling	7
English Language Proficiency Standards	3
Nonlinguistic Representation	1
Higher-Order Questions	2
Differentiated Instruction	1
Assessment Domain	
Informal	2
Formal	3
Progress Monitoring	0
Formative	0
Summative	1

In the instructional domain there were five categories on the rubric: modeling, English language proficiency standards, nonlinguistic representation, higher-order questions, and differentiated instruction. Within the modeling category there were seven instances of LEP references. Teammates discussed the science teacher's use of student labeled Popsicle sticks for randomized calling for responses. The team discussed this as

an effective strategy that ensured ELLs had equitable participation in the classroom discussion. The wait time offered to ELLs to process their thoughts yielded correct responses for all LEP students. A team member noted that one ELL was disengaged from the lesson. This student was off-task and disrupting classmates. The team commented that the starting/stopping of the video segment during the lesson benefited ELLs because it allowed for the information to be chunked and processed instead of overwhelming the students. There was an associate lab experience that required lab report results to be documented in the science notebook. LEP students were given opportunities to define terms in their own words and were observed asking peers and the teacher for clarification as needed.

In the English language proficiency standards category there were three LEP references. The team discussed the use of the scientific notebook connected to the lab activity. The students' notebooks included the use of the academic vocabulary of the lesson. All LEP students appeared to understand the academic vocabulary of the lesson as evidenced in their group conversations and writing.

The nonlinguistic category had one LEP-specific reference. The team discussed the use of the video segment that gave students their instructions. The higher-order questions category had two LEP-specific references. The team discussed how the teacher's use of a mnemonic device helped students remember a particular solar system physical characteristic. The science teacher was noted as asking higher-order questions that required deeper processing and student justifications. Students were given a final reflection prompt as a closure to the lesson, the notion of life on other planets. For the

differentiated instruction category the only LEP-specific reference was that LEP performance on the district science benchmark test showed a 27% gain from 50% to 77%.

The second domain on the rubric was assessment. The categories within this domain were informal, formal, progress monitoring, formative, and summative. The informal assessment category had no LEP-specific references. The informal assessment category had two references. The team noted that there was 100% engagement of students and that each student was observed using their own words to define terms. The formal assessment category for this lesson had three references. Team members viewed LEP students' notes from the lab activity and the teacher's use of named popsicles for randomized calling for participants' responses. The teacher had students provide feedback to each other by showing thumbs up for agreement and thumbs down for disagreement of peers' responses. Finally, the teacher had students complete an exit slip either orally or written to summarize the day's learning before class was dismissed. There were no LEP references for the progress monitoring and formative assessment categories during this observation. The summative assessment category had one LEP-specific reference and that was the observation of the students' engagement from the note-taking and response to teacher's questions. After sharing all of the statements from their observation field-notes, the team decided that the lesson did not need to be retaught. Table 6 below shows the comparison of the observations and the gains/losses from the first cycle to the second cycle. The initial observation prior to lesson study collaborative lesson planning did not yield any data so that first observation as a column is not

included. This comparison shows where frequencies of LEP-referencing had increased, decreased, or remained constant.

Table 6

Team A, Cycle I and II Comparison of LEP-Specific References in Academic Team Meetings

Domains	Cycle I References	Cycle II References	Gain/Loss
Instructional Domain			
Modeling	6	7	+1
English Language Proficiency Standards	7	3	-4
Nonlinguistic Representation	4	1	-3
Higher-Order Questions	2	2	0
Differentiated Instruction	0	1	+1
Assessment Domain			
Informal	1	2	+1
Formal	3	3	0
Progress Monitoring	0	0	0
Formative	3	3	0
Summative	1	1	0

In comparing Team A's Cycle I and Cycle II LEP References, the instructional domain had two categories with gains between the two collaborated lessons: modeling and differentiated instruction. There were seven references in the second debrief

compared to six in the first for modeling. The English language proficiency standards category had a four-point loss and the nonlinguistic representation category had a three-point loss. The higher-order questions category had an equal amount of references (2). The second debrief had one reference for differentiated instruction whereas the first had none. The assessment domain showed a gain of one point in the informal category. The formal, progress monitoring, formative, and summative categories each had no movement, but rather was the same frequency between the two observed debrief sessions.

Team B, Descriptive Data

Team B consisted of three 7th grade teachers, one instructor each from science, math, English. A fourth teacher from social studies was at the initial observed academic team meeting, but decided to withdraw before participating in the lesson study collaborative model. Table 7 below shows the team's profile as generated from the individual teacher questionnaires. All three held 0-5 years teaching experience, none were ESL certified, and only the math teacher had taken SIOP training. The science and math teachers had received specific ESL staff development in the past academic year; however, the English had no ESL training. All three teachers indicated that they were "somewhat familiar" with differentiated instruction for ELLs. The science teacher indicated that the team spent 3-5 days planning lessons but the other two instructors stated that zero days per week were dedicated to team lesson planning. The science teacher also reported that 50% of the team time was dedicated for lesson planning, while the other two teammates stated 0% of team time was dedicated to lesson planning. All three teachers indicated varying frequencies of days per week dedicated to data

discussion. The science teacher said 1 day per week was devoted to viewing student data, the math teacher indicated that data talks occur only when there were student failures, and the writing teacher stated that data discussion occurred three to four times per week. The science and math teacher participated in one to two peer observations in the past academic year, while the English teacher had not participated in any peer teaching and observation opportunities. Only the math teacher had consulted an ESL teacher at some point in the past academic year for lesson planning one to two times: the other two participants had not requested or received any ESL lesson consults. None of the team consulted an ESL teacher for data disaggregation during the past academic year and only the math teacher was “somewhat” familiar with collaborative lesson planning. The other two teachers were “not” familiar with collaborative lesson planning.

Table 7

Team B, Teacher Descriptors

Descriptors	Teacher 1	Teacher 2	Teacher 3
Content	Science	Math	English/Language Arts
Years Teaching	0-5	0-5	0-5
ESL Training			
ESL Certified	No	No	No
Sheltered Trained	No	Yes	No
Staff Development In the Past Year	Yes	Yes	No
Differentiation Familiarization	Somewhat	Somewhat	Somewhat
Days Team Plan Per Week	3-5	0	0
Percentage of Team Time for Planning	50%	0%	0%
Frequency of Data Talks days/wk	1	Failures	3-4
Frequency Peer Observation times/yr	1-2	1-2	0
Frequency of ESL Consult for Lessons times/yr	0	1-2	0
Frequency of ESL Consult for Data times/yr	0	0	0
Familiarization with Collaborative Plan	Not	Somewhat	Not

Team B, First Observation

I conducted three observations of Team B. I listened to and observed a regularly conducted team meeting and tallied the frequency or infrequency LEP specific instances of discussion and planning that occurred prior to the collaboratively planned lessons for ESL student inclusion (see Appendix E). The content of discussion of Team A during this observation did not include any specific references for LEP students in any of the domains. This team meeting was administrative in nature and campus-based issues were discussed as well as end-of-the-year procedures for team awards and an upcoming field trip. This team meeting was the only one observed prior to implementation of the lesson study collaborative model.

Team B, Second Observation, Lesson Cycle I

My second observation occurred after the team had participated in the lesson study collaborative model. The team collaboratively planned a science lesson on experimental design by following the steps of the lesson study model: formation of team, focus of study, plan of study, observation preparation, teaching and observation of lesson, lesson debriefing, and lesson reflection and progress (Richardson, 2004; Stigler & Hiebert, 1999). The last two steps, lesson debriefing and reflection and progress, were the agenda items for my observations. The first five steps of Team B's first cycle of the model are summarized in the following paragraphs.

This lesson on experimental design was chosen for students to explore variables. The learning objective of the lesson was centered on the exploratory ability of the students to investigate and demonstrate variables by completing the Cheetos Lab. The

steps of the lesson were for students to complete a lab report from length calculation of two flavors of Cheetos chips as well as variable identification from the activity. Team B decided that a formal assessment would be the completion of the lab report and a scientific word problem for variable identification.

Team B chose to have debriefs occur the day after lesson observations. Team B's LEP Reference Rubric, completed during this lesson's debrief and reflection for their first cycle of lesson study, is presented below as Table 8.

Table 8

Team B, Cycle, I LEP-Specific References in Academic Team Meetings

Domains	Number of LEP References
Instructional Domain	
Modeling	1
English Language Proficiency Standards	4
Nonlinguistic Representation	3
Higher-Order Questions	3
Differentiated Instruction	0
Assessment Domain	
Informal	3
Formal	2
Progress Monitoring	0
Formative	1
Summative	1

In the instructional domain there were five categories on the rubric: modeling, English language proficiency standards, nonlinguistic representation, higher-order questions, and differentiated instruction. Within the modeling category there was one instance of LEP reference. Teammates discussed how the teacher role-played with a LEP student to model the lab and that particular student asked his peers questions of the

assignment. In the English language proficiency standards category there were four LEP references. The team discussed having students work in cooperative groups, the heterogeneous mix of the groups, and the need for primary language support for clarifications for ELLs and the cloze procedure for sentence stems and the academic vocabulary.

The nonlinguistic category had three LEP-specific references. The team discussed student interaction during the Cheetos Lab, the actual manipulation of the Cheetos, and the use of total physical response technique by having students point to particular variables with their fingers. The higher-order questions category had three LEP-specific references. The team discussed how the role-play scenario was an application level activity. The teacher encouraged the role-play student to ask questions of his peers, which represented application level thinking because questions were generated by the student. The team observed application level thinking in the lab activity with the required academic vocabulary during class discussions. The differentiated instruction category did not have any LEP-specific references during this second observation of Team B.

The second domain on the rubric was assessment. The categories within this domain were informal, formal, progress monitoring, formative, and summative. The informal assessment category had three LEP-specific references. The team observed the teacher using the duck-duck-goose game as an activity to increase student participation in answering questions. In the lesson's warm-up, the observers noted that students did not fully understand the concept. The science teacher held students accountable throughout the lesson for using the academic vocabulary in their questions and answers. The formal

assessment category had two references. The team observed the teacher constantly asking questions of all students and the teacher encouraging reticent LEP students to participate. The progress monitoring category was not referenced during this observation. The formative assessment category had one reference consisting of the use of a rubric for the students' lab report. The summative assessment category had one LEP-specific reference pertaining to the placement of this lesson as a review for the end-of-year science exam.

After sharing all of the statements from their observation field-notes, the team decided that the lesson was taught and assessed satisfactorily, without a need for reteaching.

Team B, Third Observation, Lesson Cycle II

My third observation occurred after the team collaboratively planned a science lesson on the scientific process in preparation for the campus's science fair. The team followed the steps of the lesson study model as aforementioned in the summarization of the first cycle. Team B's third cycle of the model is summarized in the following paragraphs.

The learning objective of the lesson involved students investigating and demonstrating variables by working on their science fair projects in groups. The team determined that the assessment would be a group-completed project board with the following components: problem, hypothesis, procedures, materials, background research, and variables. The assignment was due by class end. The steps of the lesson were as follows: teacher would explain lesson, all procedures were explained at the beginning of the lesson to minimize interruptions later in the class period, teacher would spend

remainder of the lesson moving from table-to-table to check that students were on task and answer questions.

Team B chose to have debriefs occur the day after lesson observations. Team B's LEP Reference Rubric, completed during this lesson's debrief and reflection for their second cycle of lesson study is presented below as Table 9.

Table 9

Team B, Cycle II, LEP-Specific References in Academic Team Meetings

Domains	Number of LEP References
Instructional Domain	
Modeling	3
English Language Proficiency Standards	1
Nonlinguistic Representation	1
Higher-Order Questions	2
Differentiated Instruction	0
Assessment Domain	
Informal	3
Formal	0
Progress Monitoring	0
Formative	1
Summative	0

In the instructional domain there were five categories on the rubric: modeling, English language proficiency standards, nonlinguistic representation, higher-order questions, and differentiated instruction. Within the modeling category there were four instances of LEP reference. Teammates discussed how the teacher has students participate in actual science experiments using group-selected hypotheses. There was a classroom manager for the use of scientific tools and equipment. Students also received teacher and peer feedback in cooperative groups. In the English language proficiency standards category there was one LEP reference. The team observed students generating visuals based upon displayed vocabulary posters.

The nonlinguistic category of the rubric also had one LEP-specific reference that the lesson itself was in preparation for the campus's science fair. The higher-order questions category had two LEP-specific references. The team agreed that comprehension was a baseline for success in this lesson because all parts of the scientific process had to be understood before groups could work. The actual board construction was noted as being application of a major science concept, the scientific process. The differentiated instruction category did not have any LEP-specific references during this observation.

The second domain on the rubric was assessment. The categories within this domain were: informal, formal, progress monitoring, formative, and summative. The informal assessment category had three LEP-specific references. The team observed that the teacher used the posted scientific process rubric as a basis for group observations as well as for monitoring for understanding. The team noticed that one particular group

created a class distraction for the lesson. The formal assessment category and progress monitoring categories did not have any LEP references. The formative assessment category had one LEP reference: there was a team survey administered to participants providing information on the participation level of each group member. The summative assessment category did not have any LEP-specific references.

After sharing all of the statements from their observation field-notes, the team decided that the lesson was taught and assessed without a need for reteaching. This completed the team's second lesson study cycle. Table 10 below shows the comparison of the observations and the gains/losses from the first cycle to the second cycle. The initial observation prior to lesson study collaborative lesson planning did not yield any data so that first observation as a column is not included. This comparison shows where frequencies of LEP-referencing had increased, decreased, or showed no movement.

Table 10

Team B, Cycle I and II Comparison of LEP-Specific References in Academic Team Meetings

Domains	Cycle I References	Cycle II References	Gain/Loss
Instructional Domain			
Modeling	1	3	+2
English Language Proficiency Standards	4	1	-3
Nonlinguistic Representation	3	1	-2
Higher-Order Questions	3	2	-1
Differentiated Instruction	0	0	0
Assessment Domain			
Informal	3	3	0
Formal	2	0	-2
Progress Monitoring	0	0	0
Formative	1	1	0
Summative	0	1	+1

In comparing Team B's Cycle I and Cycle II LEP-References, the instructional domain had one category with a gain from the first cycle to the second: modeling with a two-point increase. The English Language Proficiency Standards category decreased by three points, the nonlinguistic representation category by two points, and the higher-order questioning category decreased by one point. The differentiation of instruction column

remained the same with no references in either cycle. The assessment domain showed no gains in the informal category. The formal assessment category showed a two-point gain from the first cycle to the second. Progress monitoring and formative assessment categories did not show gains and summative assessment had a one-point gain.

Team C, Descriptive Data

Team C consisted of three 8th grade teachers, two teachers from science and one instructor from social studies. This team had a membership of five, but the reading and math teachers were unable to participate due to prior campus commitments for tutoring. Table 11 below shows the team's profile as generated from the individual teacher questionnaires. The first and observed science teacher, Teacher 1, and the social studies teacher, Teacher 2, had 0-5 years teaching experience. The second science teacher, Teacher 3, had 6-10 years and was the only team member holding ESL certification. In addition, Teacher 3 was the only teacher who had SIOP experience and had attended an ESL-specific staff development in the past academic year. Both Teacher 1 (first science teacher) and Teacher 2 (social studies) indicated they were "somewhat" familiar with differentiation techniques for ELLs. Teacher 3 (second science teacher) was "very" familiar with ELL differentiation. Teacher 1 indicated that 1-2 days of team meetings were dedicated to lesson planning with 25% of team time spent on lesson planning. Teachers 2 and 3, however, indicated that zero days were spent planning lessons with 0% of team time dedicated to lesson planning. Teacher 1 noted that 2 to 3 days of team meetings were focused on data talks. Teacher 2 said zero days and Teacher 3 said four

times a year data were discussed. This indicated that student test results were only viewed after each of the district's benchmark test administrations.

For peer observations, Teacher 1 had 1 to 2 days participation in the last year, Teacher 2, no days, and Teacher 3 had 5 or more days of peer observations. Teachers 1 and 2 had not consulted an ESL teacher for lesson planning or data analysis in the past year. Teacher 3 had consulted an ESL teacher for lesson planning five or more times this academic year and three to five times for data analysis. For familiarization with the collaborative lesson planning model, Teacher 1 indicated being "somewhat" familiar. Teacher 2 was "very" familiar and Teacher 3 was "not" familiar.

Table 11

Team C, Teacher Descriptors

Descriptors	Teacher 1	Teacher 2	Teacher 3
Content	Science	History	Science
Years Teaching	0-5	0-5	10
ESL Training			
ESL Certified	No	No	Yes
Sheltered Trained	No	No	Yes
Staff Development In the Past Year	No	No	Yes
Differentiation Familiarization	Somewhat	Somewhat	Very
Days Team Plan Per Week	1-2	0	0
Percentage of Team Time for Planning	25%	0%	0%
Frequency of Data Talks days/wk	2-3	0	4 times/yr
Frequency Peer Observation times/yr	1-2	0	5+
Frequency of ESL Consult for Lessons times/yr	0	0	5+
Frequency of ESL Consult for Data times/yr	0	0	3-5
Familiarization with Collaborative Plan	Somewhat	Very	Not

Team C, First Observation

I conducted three observations of Team C. I listened to and observed a regularly conducted team meeting and tallied the frequency or infrequency LEP specific instances of discussion and planning that occurred prior to the collaboratively planned lessons for ESL student inclusion (see Appendix E). This initial team meeting did not yield any tally marks for LEP specific references in any of the domains. This team meeting was administrative in nature and campus-based issues were discussed as well as end-of-the-year procedures for team awards and tutoring for the next administration of the state exam. I was invited to leave the meeting due to its campus specificity. I complied and left the meeting before the meeting time was complete. This team meeting was the only one observed prior to implementation of the lesson study collaborative model.

Team C, Second Observation, Lesson Cycle I

The team's second observation occurred after the team had participated in the lesson study collaborative model. The team collaboratively planned a science lesson on global warming and the greenhouse effect by following the steps of the lesson study model: formation of team, focus of study, plan of study, observation preparation, teaching and observation of lesson, lesson debriefing, and lesson reflection and progress (Richardson, 2004; Stigler & Hiebert, 1999). The last two steps, lesson debriefing and reflection and progress, were the agenda items for my observations. The first five steps of Team C's first cycle of the model are summarized in the following paragraphs.

This lesson on global warming had a learning objective for students to apply their understanding of global warming and develop their own definitions of the Greenhouse effect. The steps of the lesson were as follows: (a) students were to illustrate comprehension of greenhouse gases and their individual role in trapping the sun's energy; (b) students were required to write an explanation about other planets in the solar system that cannot sustain life; and (c) students had to draw a comparison/contrast of the Earth's atmosphere pre and post Industrial Revolution. Team C decided that formal assessments would include answering teacher-created questions related to the effects and impact of greenhouse gases.

This collaboratively planned lesson was observed by two of the team members. One teammate was the actual science teacher observed. Team C chose to debrief this lesson the same day it was observed. Team C's LEP Reference Rubric, completed during this lesson's debrief and reflection for their first cycle of lesson study is presented below as Table 12.

Table 12

Team C, Cycle I, LEP-Specific References in Academic Team Meetings

Domains	Number of LEP References
Instructional Domain	
Modeling	3
English Language Proficiency Standards	1
Nonlinguistic Representation	2
Higher-Order Questions	2
Differentiated Instruction	0
Assessment Domain	
Informal	1
Formal	1
Progress Monitoring	0
Formative	1
Summative	0

The instructional domain included five categories on the rubric: modeling, English language proficiency standards, nonlinguistic representation, higher-order questions, and differentiated instruction. Within the modeling category there were three instances of LEP references. Teammates observed students defining terms in their own words, working in cooperative groups, and clarifying terms for each other. In the English

language proficiency standards category there was one LEP reference. The team discussed the students' use of the academic vocabulary during the lesson and student responses to the teacher's questions.

The nonlinguistic category had two LEP-specific references. The team commented on the use of visual aids for students and how these visually framed the discussions for students to activate background knowledge. The higher-order questions category had two LEP-specific references. The team discussed how they observed students generating their own evaluations of the effects and impact of greenhouse gases on the Earth. The differentiated instruction category did not have any LEP-specific references during this observation.

The second domain on the rubric was assessment. The categories within this domain were: informal, formal, progress monitoring, formative, and summative. The informal assessment category had one LEP-specific reference. The team observed the every student being called on by the science teacher to provide a question about the learning. The formal assessment category had one reference, the student-provided definition of global warming. No references were made in the progress monitoring category. The formative assessment category had one LEP-reference. The team observed LEP students participating scientific discourse with the teacher. The summative assessment category had no LEP-specific references during this observation.

After sharing all of the statements from their observation field-notes, the team decided that the lesson was taught and assessed satisfactorily, without a need for reteaching. This completed the team's first lesson study cycle.

Team C, Third Observation, Lesson Cycle II

The team's third observation occurred after the team collaboratively planned a science lesson on the scientific process in preparation for the campus' science fair. By following the steps of the lesson study model as aforementioned in the summarization of the first cycle. Team C's third cycle of the model is summarized in the following paragraphs.

The learning objective of the lesson was for students to investigate and demonstrate variables by working on their science fair projects in groups. The team determined that the assessment would be a group-completed project board with the following components: problem, hypothesis, procedures, materials, background research, and variables. The assignment was due by the end of that class period. Lesson steps and assessments were not included in the work session documents provided submitted.

This collaboratively planned lesson was observed by the social studies teacher and the second science teacher. Teacher 3 did not attend the debrief meeting nor participate in the observation due to another campus commitment. One teammate was the actual science teacher observed, Teacher 1. Team C chose to debrief this lesson the same day it was executed. Team C's LEP Reference Rubric, completed during this lesson's debrief and reflection for their second cycle of lesson study is presented below as Table 13.

Table 13

Team C, Cycle II, LEP-Specific References in Academic Team Meetings

Domains	Number of LEP References
Instructional Domain	
Modeling	4
English Language Proficiency Standards	1
Nonlinguistic Representation	1
Higher-Order Questions	1
Differentiated Instruction	0
Assessment Domain	
Informal	0
Formal	0
Progress Monitoring	0
Formative	1
Summative	0

The instructional domain contained five categories on the rubric: modeling, English language proficiency standards, nonlinguistic representation, higher-order questions, and differentiated instruction. Within the modeling category there were four instances of LEP referencing. Teammates observed cooperative group discussion of the definitions of the academic terms used in the lesson. There was modeling through the

science fair project expanding of previous lessons by including independent and dependent variables. LEP students were seen and heard asking group members for clarifications. Students were also heard keeping each other accountable by reminding each other of their roles and timing. In the English language proficiency standards category there was one LEP reference. The team observed students using hands-on manipulatives as they applied the scientific process to their projects.

The nonlinguistic category also had one LEP-specific reference, definitions to the academic vocabulary words were posted on the whiteboard for students to use as a reference. The higher-order questions category had one LEP-specific reference; the scientific process had to apply to the science experiment. The differentiated instruction category did not have any LEP-specific references during this observation.

The second domain on the rubric was assessment. The categories within this domain were informal, formal, progress monitoring, formative, and summative. The informal assessment, formal, progress monitoring, and summative categories did not have any references during this observation. Formative assessment had one LEP reference. The team discussed the poster board being graded from a teacher-created rubric. After sharing all of the statements from their observation field-notes, the team decided that the lesson was taught and assessed satisfactorily, without a need for reteaching. This completed the team's first lesson study cycle.

Table 14 below shows the comparison of the observations and the gains/losses from the first cycle to the second cycle. The initial observation prior to lesson study collaborative lesson planning did not yield any data so that first observation as a column

is not included. This comparison shows where frequencies of LEP-referencing had increased, decreased, or showed no movement.

Table 14

Team C, Cycle I and II Comparison of LEP-Specific References in Academic Team Meetings

Domains	Cycle I References	Cycle II References	Gain/Loss
Instructional Domain			
Modeling	3	4	+1
English Language Proficiency Standards	1	1	0
Nonlinguistic Representation	2	1	-1
Higher-Order Questions	2	1	-1
Differentiated Instruction	0	0	0
Assessment Domain			
Informal	1	0	-1
Formal	1	0	-1
Progress Monitoring	0	0	0
Formative	1	1	0
Summative	0	0	0

In comparing Team C's Cycle I and Cycle II LEP-References, the instructional domain had one category with a gain from the first cycle to the second: modeling with a one-point increase. The English Language Proficiency Standards category remained the

same between both cycles with only one reference in each debrief meeting. Both the nonlinguistic representation category and the higher-order questions category decreased by one point. The differentiation of instruction column remained the same with no references in either cycle. The assessment domain showed decreases of one point in the informal and formal categories. Progress monitoring remained at a zero, with no references made at either debrief session. Formative assessment stayed steady at one point between the two cycles. Summative assessment remained a zero without any team references made throughout the study.

Table 15 below shows the three-team comparison of gain/loss in each domain category. Commonalities and outliers are presented after the table to illustrate possible impact or non-impact of lesson study collaborative model.

Table 15

Three-Team Comparison of Gains/Losses after Two Cycles of Lesson Study Implementation

Domains	Team A	Team B	Team C
Instructional Domain			
Modeling	+1	+2	+1
English Language Proficiency Standards	-4	-3	0
Nonlinguistic Representation	-3	-2	-1
Higher-Order Questions	0	-1	-1
Differentiated Instruction	+1	0	0
Assessment Domain			
Informal	+1	0	-1
Formal	1	-2	-1
Progress Monitoring	0	0	0
Formative	0	0	0
Summative	0	+1	0

The three-team comparison of gains/losses for the implementation of the lesson study collaborative model revealed similarities and differences across the domains and categories. In the instructional domain all teams showed an increase of LEP-specific references. Team A and Team B had a four-point and three-point decrease respectively, across two cycles of implementation; however, Team C stayed the same. All three teams

decreased in LEP references for the nonlinguistic representation category. Team A decreased by three points, Team B by two points, and Team C by one.

Higher-order questions category had no movement by Team A, with one-point decreases by Team B and Team C. With a one-point increase, Team A was the only team to demonstrate a gain for the differentiated instruction category, Team B and C showed no movement. The assessment domain indicated all three teams at different levels for informal assessments. Team A increased by one point, Team B remained the same, and Team C decreased by one point. For formal assessment, Team A increased by one point, Team B decreased by two points, and Team C decreased by one point. Both the progress monitoring category and the formative assessment category showed neither gains nor losses by any participating team. The summative category showed Team B with a one-point increase while Team A and C remained without movement.

Holistically, all three teams showed gains in the modeling category of the instructional domain in two cycles of implementation. All three teams had a loss in the nonlinguistic representation category. In the assessment domain, both progress monitoring and formative assessment showed neither gain nor losses occurring within teams' debriefs.

Teaching Impact Reflection Analysis

This section presents themes that emerged from the individual responses framed by the Teaching Impact Template (Appendix I): Participant involvement, teaching improvement goals, academic team experiences, impact on personal teaching practice,

and impact on student performance. Each theme will be presented with participant comments to illustrate the recurring discourse.

Participant Involvement

Table 16 shows the themes that emerged from participants' responses in regard to their involvement in the lesson study. In terms of participant involvement, most of the participants wanted to improve their ELL instruction and had an interest in LEP differentiation. Examples include the following:

> Team A Teacher 1: I felt that lesson study would provide an opportunity for me to improve my teaching skills for all of my students, but particularly my ESL/LEP students.
>
> Team B Teacher 1: I believe that I am an animated educator; however, I desire to learn more strategies to encompass ELPS and LEP techniques to reach our children.
>
> Team B Teacher 3: I became involved in this lesson study because I am going to have ELLs in my classroom next year, and I have very little experience teaching them.

The majority of participants wanted to improve their instructional practice and help the LEP subgroup.

Table 16

Participant Involvement in Lesson Study

	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2
Improve my teaching skills for ELLs	X					X	X	X		
Wanted to assist researcher						X		X		
Have very little experience teaching ELLs								X		
Resources from peer observations								X		
Wanted to observe other ELL teaching approaches								X		
It intrigued me									X	
Interested in how to help ELL population									X	X
Correlated with my master's thesis									X	
Have ELLs out of the danger zone									X	

Teaching Improvement Goals

Table 17 shows the themes that emerged from participants' responses regarding teaching improvement goals. Teaching improvement goals were embedded in the lesson study collaborative lesson planning model due to the professional development context of the model. Pothen and Murata (2008) reported "Lesson study provides the impetus for teachers to examine current research, pre-assess students based on these findings, plan an effective lesson, and broaden their existing understanding of teaching strategies" (p. 2). Richardson (2001) stated "it [lesson study] is rapidly attracting interest as a long-term school improvement strategy because of the hope it offers for sustained changes in teaching" (p. 1). Fernandez (2005) noted pedagogy was constructed and expanded when teachers participated in the lesson study collaborative model. In terms of teaching improvement goals, participants submitted responses that centered on lesson planning, differentiation, and collaboration. Examples include the following:

> Team A Teacher 4: As a teacher, my goal is to constantly grow and implement strategies that will aid all of my students in being successful.
>
> Team C Teacher 2: My biggest charge next year is to connect with my ELL population by planning out lessons specifically geared towards the ELL population.

In terms of teaching improvement goals, participants submitted responses that centered on lesson planning, differentiating, and collaboration.

Table 17

Teaching Improvement Goals

	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2
Consciously calling on and engaging students	X									
Plan lessons with a goal in mind	X									
Checks for understanding throughout the lesson	X									
Constantly grow and implement strategies				X						
Master the art of differentiation						X		X		
Plan lessons with LEP students in mind						X			X	
Collaborate with colleagues						X				
Be a resource to my colleagues						X				
Conduct on-site staff development						X				
Incorporate more activities that stimulate vocabulary retention								X		
To relate to my students and build a relationship with them									X	

Lesson Study Experience

Table 18 shows the themes that emerged from participants' responses regarding the lesson study collaborative lesson planning experience. Responses centered on the learning and insight that was gleaned from the peer observations of the collaboratively planned lessons. Lesson study experience was related to professional growth and learning. The experience was referred to as beneficial and positive. Participants wrote that the experience contributed to teacher effectiveness and effected individual lesson planning. One participant noted that the experience was not beneficial and that nothing was acquired from the experience. Examples include the following:

> Team A Teacher 2: The lesson study was beneficial as a learning tool for the teachers who participated to observe students in a room other than their own.
>
> Team A Teacher 4: During the lesson study, my eyes were opened to the need for collaborative planning. It is through collaborative planning that learning truly takes place.
>
> Team A Teacher 5: Being able to see effective teaching principles in action is more precious than gold.
>
> Team C Teacher 9: I really did not get much from this lesson study. My team member had a tough time relearning the content in science enough to provide really helpful feedback.

Table 18

Lesson Study Experience

	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2
Learning tool from peer observations		X		X						X
Immediate feedback to inform decisions		X	X							
Beneficial ideas		X								
Growth from working and learning together		X								
Positive experience			X							
Refreshing to see another's classroom			X							
Collaboration was beneficial			X	X	X					
Templates kept team focused on goals			X							
Focus on ELLs			X							
What was produced can be applied in other classes			X							
Made job as a teacher more effective				X						
Paradigm shift on lesson planning				X						
Insight was added to science lessons				X	X					
Did not get much from the lesson study										X
Team member had a tough time relearning science										X

Impact on Student Performance

Table 19 shows the themes that emerged from participants' responses regarding the impact on student performance. Only four of the 10 participants noted the lesson study model's impact on student performance in their teaching impact template reflections. Student performance references were made to students' interactions within the executed lesson as opposed to actual test data. Three of the four participants who referenced student learning indicated that collaboration was an outcome of the collaborative lesson plan. Discussions that were observed from these respondents revealed the collaboratively planned lessons provided students with opportunities to engage in meaningful academic conversations with each other. Examples include the following:

> Team A Teacher 5: The importance of giving kids adequate response time was evident in this study.
>
> Team B Teacher 2: I noticed that students who would ordinarily be confused were able to gain clarification from other students.

Table 19

Impact on Student Performance

	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2
Reinforced “wait times” for student processing			X							
Provided student collaboration			X	X		X				
Learned students want information shortened				X						
Students worked under the leadership of peers				X						
Students took ownership of learning				X						
Students gained clarification from peers					X					
Students were comfortable discussing content						X				

Impact on Teaching Practice

Table 20 shows the themes that emerged from participants' responses regarding the impact on teaching practice. Seven out of 10 participants indicated that an impact on their instructional practice had been made as a result of participating in the lesson study collaborative lesson planning model. Examples include the following:

> Team A Teacher 1: As a result of this study I now make sure I focus more on the goal of the lesson and not only on what my students need to know.
>
> Team A Teacher 4: This lesson study was intriguing to me because it presented me with a new way of thinking about lesson planning.
>
> Team B Teacher 1: I believe that this study has helped me to recognize that incorporating the ELPS strategies for a LEP student is feasible and a necessity.
>
> Team C Teacher 1: Now I am more comfortable with group work and class discussion.

Instructional impact was noted in two strands: lesson planning and instructional strategy. Participants indicated that lesson planning collaboration was both a new way of approaching planning and it was meaningful. The understanding that LEP differentiation was necessary and multimodal in delivery was articulated as well.

Table 20

Impact on Teaching Practice

	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2
I make sure I focus more on the goal of a lesson	X									
I focus on checking for understanding	X									
Reflect on the need for reteaching	X									
I have a new way of thinking about lesson planning				X		X				
Collaborative lesson planning has a meaningful impact on my teaching				X		X				
LEP differentiation is feasible and necessary						X		X		
I now include more talk time for students							X	X		
I use conversation stems to facilitate discussion							X			
Uses of more visuals									X	
Incorporating more peer tutoring									X	
Whole child approach, forced to look at teaching students in a different way										X

Analysis

The purpose of this case study was to examine the impact of the lesson study model as a collegial instructional strategy employed by content area and English as second language (ESL) teachers to improve the learning of English language learner (ELLs) as measured by standardized tests. Below are the research questions guiding this study and the analysis of the findings for each question.

Research Question 1

In what ways does interdepartmental teaming support or not support ELL students to access content in general education classes?

Data collection tools for this research question were the LEP Reference Rubric (Appendix E) and documents from the collaborative planning sessions. After three academic team meeting observations by me; one pre lesson study and two during lesson study implementation, I found a consistent drop in LEP-specific references across instructional and assessment domains except in the area of instructional modeling. All three teams' pre-implementation meeting observation revealed no LEP-specific references but characteristically was administrative in nature and dealt with campus-based issues.

The two meetings I observed during team implementation of the lesson study collaborative model revealed either no increase or movement in all domains assessed except for the modeling category which showed one to two more frequencies. Out of all three teams, only Team A showed gains in three categories during implementation of lesson study. In addition to modeling, as the other two teams, their references to LEP

differentiation of instruction and informal assessment increased by one frequency. Team B showed gains in one other category, summative assessment. Team C had either no movement or losses in frequencies across all except for modeling.

In reviewing data from the method and conversations of the existing interdepartmental teaming there was no evidence to support that teaming promoted ELLs' access to content in general education classes. Reviewing data from the two debrief meetings occurring through implementation of the lesson study collaborative model, LEP-specific references regarding instruction and assessment either remained stagnate or decreased from phase one to phase two. Thus ELL support through interdepartmental teaming did not significantly increase through the lesson study collaborative model (see Table 15).

Research Question 2

What differentiated instruction for ELL students is discussed and collaboratively planned for in team meetings?

Data collection tools for this research question were the LEP Reference Rubric (Appendix E) and documents collected from the collaborative planning sessions. After three academic team meetings and observations by me; one pre lesson study and two during lesson study implementation, and review of documents submitted from collaborative sessions, there was no evidence that ELL differentiation was collaboratively planned for by any team. If differentiation existed in any collaboratively planned lesson, it referenced Response to Intervention (RtI) and not LEP. Only Team A had one instance of LEP differentiation, which occurred in their second cycle of lesson study

implementation. Thus the differentiation for LEP instruction either through discussion or collaborative planning was virtually non-existent before implementation and during the lesson study process.

Research Question 3

How do teachers describe the effects of lesson study collaboration upon instructional practice?

The data collection tools for this research question were documents from the collaborative planning sessions and the Teaching Impact Template (Appendix I). Teachers' descriptions of the effects of lesson study collaboration on their instructional practice were gleaned from participants' individual responses to the experience and impact (See Tables 18 and 20).

In terms of experience, data revealed that peer observations were a personal learning tool. Participants learned more about each other and themselves from authentic peer observations of the collaborative planned lessons. Collaboration surfaced as a benefit to all practitioners, save one. This outlier indicated that teammates' lack of science content knowledge hindered the ability to provide specific feedback during planning or debriefing.

In terms of lesson study's impact on their instructional practice, data revealed seven out of 10 participants expressed an impact in planning and in instructional strategy. Analysis of participants' written reflections revealed instructional paradigm shifts. Participants stated that they have a new way of thinking about lesson planning and that LEP differentiation is feasible and necessary. Although the aforementioned was not

evident in the findings from the team work samples and my data from the LEP Reference Rubric (Appendix E), on an individual level, participants' experienced an impact as reported on the template.

Research Question 4

How do teachers describe the effects of lesson study collaboration on academic performance of Latino ELL students?

The data collection tools for this research question were documents from the collaborative planning sessions and the Teaching Impact Template (Appendix I). Teachers' descriptions of the effects of lesson study collaboration on the performance of their students were gleaned from participants' individual responses on the Teaching Impact Template (See Table 19). Only four out of 10 participants noted a student level impact of the lesson study collaborative model. Data revealed that the collaboration experienced by the teacher participants had a classroom level impact. Participation in lesson study provided planned opportunities for student collaboration. Within this collaboration data showed that ELL students worked under leadership of their peers, took ownership of their learning, gained clarification from their peers, and were comfortable discussing content. Teacher responses revealed processing time (wait time) was reinforced, and students wanted information chunked into shortened amounts. These behaviors were not evident prior to lesson study implementation. Data showed limited evidence supporting an impact of lesson study collaborative model upon Latino ELLs' performance. Too few participants reported to describe and support the impact of lesson study on Latino ELLs' performance.

Summary

This section began with a presentation of the research process of this doctoral study. The first segment presented the descriptive data of each participating team and summarizations of three observations I made of team meetings using a LEP Reference Rubric (Appendix E). This segment ended with a comparison of all three teams' completed LEP-reference rubric findings to answer the first two research questions. The next segment presented data from the Teaching Impact Template for each individual participant to answer research questions three and four. The last segment analyzed data from presented findings to indicate impact or no impact of lesson study upon teachers and student performance. Section 5 discusses the study's findings, conclusions, and recommendations.

Section 5: Discussion, Conclusions, and Recommendations

Overview

The purpose of this case study was to examine the impact of the lesson study model as a collegial instructional strategy employed by content area and ESL teachers to improve the learning of ELLs as measured by standardized tests. This section presents an overview of the study, in interpretation of results, the implications for social changes, the recommendations for action and further study, and a conclusion.

Participants in this study were 7th and 8th grade general education teachers of Latino ELLs at an inner-city, low-performing, junior high school. In addition to being the teacher of record for science, mathematics, English/language arts, or social studies, each teacher was a member of an academic team whose membership included at least one teacher from each core-content area. Data collection began with participants completing a questionnaire that provided descriptive data about them (Appendix D). After an orientation, teams implemented the lesson study collaborative model within two lesson cycles. I returned after each lesson cycle to observe debriefing meetings in which team members discussed their observations of executed lessons that were collaboratively planned (Appendix E), at the end of implementation, and each participant completed a teaching impact template (Appendix I) .

A number of themes emerged from the Teaching Impact Template related to the following: participant involvement in the study, instructional improvement goals, academic team experiences, student performance outcomes, and individual teaching

practice influences. Most participants indicated that participation in the lesson study model was positive and cited both personal and instructional effectiveness.

Interpretation of Findings

The first research question investigated the interdepartmental teaming support of ELLs' access to content in general education classes. The structured time permitted within contract hours for teachers to meet regularly to plan instruction for a shared cohort of students was an institution practice. It is within this job-embedded professional development model that in-service teachers can collaborate as well as examine and share practitioner knowledge (Hiebert, Gallimore, & Stigler, 2002; Honigsfeld & Cohan, 2006; Stewart & Brandefur, 2005). The data prior to lesson study implementation revealed that interdepartmental teaming did not indicate that ELLs' access to content was supported. Team meetings were built into the master schedule of the school day as an opportunity for all four core content teachers of a particular cluster of students to meet and discuss the cross-curricular instruction and support of students. Team norms and agendas were neither present nor implemented during this doctoral study. Initially, teams met without having an instructional conversation or collaborative planning session. When teams met, the team leader facilitated discussions concerning campus-based events or procedures. The only instructional referenced conversation I observed was a tutorial planning session for the students who were unsuccessful on a recently administered state exam. However, that conversation did not reference instructional support, only logistics. Documents and artifacts that could have guided instructional conversations such as student samples, lesson plans, and instructional manipulatives were not evident in any of the observed

sessions prior to implementation. The characteristics of the participating teams confirmed Huang's (2004) report that secondary teachers perceive their roles independent from academic systems of shared responsibilities. Without a team focus on student outcomes, teacher improvement both within and between disciplines is limited (Cerbin & Kopp, 2006).

Data gathered post implementation showed no significant increase in LEP-specific references in team meetings. There were consistent drops in LEP references in both instructional and assessment domains over the three-phase course of implementation. Based on these findings, this study was unable to determine ways that ELLs' access to content in general education was supported by the current format of academic teams. This study, however, yielded data that identified ways ELLs were not supported through interdepartmental teaming. These teams were comprised of few ESL certified teachers and even fewer members who were trained in ESL-specific pedagogy. The structure and time expenditure of these daily meetings were not conducive for an academic focus. Attendance of team members and topics of discussion varied amongst teams. The lesson study model provided a format and structure for LEP-specific instructional needs to be addressed and responded. Data yielded from this research question further supported the findings of Pothen and Murata (2008), "lesson study provides the impetus for teachers to broaden their existing understanding" (p. 2). Prior to implementation, the conversations supporting ELLs' access to science content in general education science classes were non-existent. Although these conversations did increase in

length or depth during the two phases of implementation, implementation was the impetus for collaborative lesson planning and examination.

Data from this study revealed that prior to lesson study implementation; differentiation of instruction for ELLs was neither discussed nor planned in team meetings. This research question also provided the context for research question number one. These two questions are related by an "if and then" construct. Although one academic team discussed an upcoming tutorial program for the state exams, the instructional differentiation that would occur from previous classroom instruction was not addressed, nor was any specific differentiation or tutorial needs for special populations of learners such as ELLs. From the data sources targeting differentiated instruction and collaborative lesson planning, I observed only one team that employed LEP differentiation during the second phase although there was at least one sheltered trained (SIOP) teacher on each team. Thus, differentiation was virtually non-existent prior to and during implementation even with capable representation on each team. Published research has supported lesson study collaborative model being an instructional response to differentiation of instruction (Honigsfeld & Cohen, 2006; Kolenda, 2007; Rock & Wilson, 2005).

Collaboratively planned lessons for LEP students were discussed and actualized during lesson study implementation due to the format of the model. However, reviewing the work documents submitted for analysis, collaboratively planned interventions were within the Response to Intervention (RtI) category rather than specific LEP differentiation. RtI lends itself toward special education categories of support and not

towards linguistic support required by LEP students (National Center for Culturally Responsive Educational Systems, 2006). Depending upon a team's roster, these documented differentiations may or may not have supported second language learners because RtI focuses solely on cognitive demand and remediation. Without a formal agenda, facilitated discussion regarding learners' needs, or review of student products, the academic teams did not utilize this specialized time for instructional conversations or planning. Implementing lesson study with consistency and fidelity has shown that teachers have learned new methodologies and showed improvement in academic vocabulary instruction, differentiation of instruction, and in having high expectations for students (Rock &Wilson, 2005).

Whereas participation in lesson study increased the occurrence of collaboration there was no increase or decrease of LEP-specific differentiation through discussions or planning during team meetings. The data yielded for this research question does not correlate with findings from Kolenda (2007), who published the following results when applying lesson study to science instruction: diminished teacher isolation, student misconceptions addressed by each lesson study lesson, instructional practice improved based on data provided via lesson study instead of left to less prescriptive sources, and positive peer pressure created a demand for staff improvement. The disconnect between this study's findings and that of Kolenda (2007) presents opportunities for further action research.

Teachers described the effects of lesson study collaboration on their instructional practice in personal ways. Data from this study revealed that seven out of 10 participants'

planning and instruction were positively affected by participating in lesson study. Only one participant stated that participation in lesson study had no effect. This participant cited teammates' lack of content knowledge as a factor that mitigated a personal instructional benefit from participation. Participants experienced what Jones (2007) described as "positive teacher talk that results in improved student achievement, and increased teacher knowledge and understandings" (p. 2). In terms of the lesson study experience, there were four common themes that emerged from the data:

- peer observations are a learning tool for how students behave in other classes,
- immediate feedback informed teacher decision-making processes for reteaching,
- collaborative planning was beneficial for sharing successful instructional strategies, and
- team members increased their science content knowledge and identified areas of transfer within their own content area

Participants' responses supported the research of Honigsfeld and Cohan (2006) which stated that in-service teachers needed opportunities to examine their own practice, negotiate their development, and collaboratively construct new knowledge. The findings of this study further confirmed what Honigsfeld and Cohan (2006) noted as changes in teacher cognition about teaching ELLs and second language acquisition. Although not evident from submitted work samples, individuals' described personal paradigm shifts of understandings of lesson design and execution in their reflective writings.

In reviewing the published literature regarding lesson study implementation, the results of the effects of lesson study upon instructional practice is consistent with

previous studies, including those with longer research timeframes and those with fewer participants. After six years of implementation, Lewis, Perry, Hurd, and O'Connell (2006) found that lesson study changed school culture by shaping an administrative and campus response to securing lesson study time within the school day, mentoring was able to occur during lesson study as a by-product for novice teachers, and teachers shared their investigations with peers. With only four participants, Dumitrascu and Horak (2008) found that "lesson study had a strong potential to support teachers' cumulative growth" (p. 16). This small participant base provided these researchers with a deep analysis of teachers' understanding of content knowledge and of teaching Latino ELLs. Participants from this cohort used the lesson study model to create a presentation for a national conference. Data from this study and that of the limited publications of the full lesson study cycle indicate that this collaborative model has positive effect on its participants' instructional practice.

Teachers in this study described the effects of lesson study collaboration upon Latino ELLs' academic performance as changes in student learning behaviors as opposed to performance on assessments. Teachers noted that student behaviors such as collaborative learning, participation in classroom discussions, and getting clarification from peers were non-existent prior to the teachers' implementation of lesson study. In debrief meetings teachers discussed particular ELL's behavior in comparative classes. Teachers shared questioning techniques and grouping strategies that promoted the desired behavior or increased participation. For example, some of the team members did not know a particular student was identified as LEP until the science teacher discussed how

the student changed due to the collaboratively planned lessons and activities. After observing the science teacher's interactions with the student or seeing what the student could actually produce orally and in writing, other teammates would share how they would implement those stimulating pieces of the lesson in their own classrooms.

Although lessons included assessments, both formative and summative, participants did not share how the targeted subgroup faired. In reviewing the data, participants had more to say on the effect of lesson study on their own practice than the effect upon students. It may be that the impact of the lesson study model affected the participants in such a way that personal instructional practices and changes may have overshadowed the actual effects upon student performance. In reading the Teaching Impact Templates, participants submitted personal reflections that centered on the impact the lesson study experience had on their individual practices. Although asked to consider insights into student learning, participants did not apply the lesson study experience to student outcomes.

With a limited bank of available published research on lesson study and ELL instruction, the availability of lesson study's effect on student learning is even more limited. The only reference to student performance in a lesson study research was a disclaimer by Dumitrascu and Horak (2008) stating that although standardized scores at the campus where the research was conducted increased for the students when teachers remained on the campus since inception and implementation of the lesson study model. All published literature on lesson study implementation focuses solely on teacher response and results.

Implications for Social Change

Teacher layoffs, reduction in services and supplies, and an ever-growing Hispanic student populace could be a formula for disaster if existing policies and programs are not reevaluated to ensure maximization of manpower and resources. The increased attention of both federal and municipal entities on public school districts' performance on standardized measures behooves policy-makers to create a sustainable system of teacher support so that society receives a literate, technologically-savvy, problem-solving citizen required to sustain America's position as a competitive world power and model. Current national data show that public schools' largest subgroup, Latino, is the fastest growing and largest dropout group (Kochlar, Suro, & Tafoya, 2005; U.S. Department of Education, 2007).

As a society, these data must inform decisions made by legislatures at all tiers of government: federal, state, and local. Federal laws governing the participation of Latino students and dissemination of standardized test scores are in place. However, responses to the data rest upon states and the independent school districts. Due to limited published research on these responses, the results of this study may provide suggestions and implications for social change in school systems experiencing problems of high Latino dropout and high Latino failure rates on standardized examinations. Improving the student performance of this subset on standardized testing may provide tangible, documented success of Latino students, and increase the access of Latino ESL students to more rigorous courses of study. The latter of which provides increased opportunities for post-secondary education access and success. This post-secondary experience is under

the jurisdiction of the state for state-funded universities. Understanding the economic impact of this subgroup requires states to reevaluate current laws and mandates regarding college entrance requirements to state-funded and private institutions as well.

Increased matriculation of Latinos through the K-16 experience may lessen the likelihood of economic burden to the state and local economies. That burden is characterized by such cases as the dropouts of the Texas class of 2007 who will, over a lifetime, will cost taxpayers $377 million dollars (Jones & Bou-Waked, 2007). This expenditure is $48 million dollars more than that same class costs the nation in wages, productivity, and taxes (Alliance for Excellent Education, 2007). Furthermore, researchers at the Alliance for Excellent Education (2006) found that raising the graduation rates of Hispanics to the levels of European Americans by 2020 would increase the earning potential of income to $310 billion, adding to the U.S. economy, thus decreasing the amount of governmental payout for Medicaid, incarceration, and unemployment.

Recommendations for Action

The findings from this doctoral study suggests that participation in lesson study is a research-based, time-efficient, and cost-effective way to foster collaborative planning and progress monitoring of non-ESL certified teachers responsible for teaching Latino ELLs. Results of this study are beneficial to educational stakeholders at the state, regional, district, and campus levels.

With the responsibility of stipulating the amount of hours of staff development credential holders are required to complete between license renewals and the types

thereof, the state department of education must widen its scope of professional development to envelope more clock hours of job-embedded staff development instead of accepting the majority of hours that are logged on a certificate of completion from a course or training. These traditional types of professional development often require teachers to be out of the classrooms, are conducted off-site, often in isolation from the coworkers with whom these teachers would need to work for implementation. By allowing license holders to participate in job-embedded professional development such as lesson study, teachers would transition from the role of listener or attendee and be propelled into that of educational action researcher. Working within data and learning teams as a cohort, teachers' instructional practices are highlighted, questioned, and refined in an atmosphere of school improvement and with the sole purpose of improving student outcomes, not just accumulating clock hours for certificate renewal.

An additional recommendation for the state would be to mandate a particular number of clock hours for training in the areas of ESL, at-risk learners, or diversity in the classroom. Currently, ESL certification is not a requirement for secondary teachers outside the scope of teachers of English. This leaves students responsible for 4 years of science, history, and mathematics without practitioners required to know have had any training in second language acquisition, knowledge of interventions for at-risk students, and characteristics of Latino students. Yet, these same individuals are responsible for delivering the state's curriculum with fidelity and equitably to all students served. Stipulating an amount of training required for secondary teachers in the aforementioned areas lessens the ill-preparedness teacher training programs presently provide. In addition

to an amount for initial licensure, the state should require an amount of training between license renewals to ensure this specific staff development is on-going.

In Texas, the state of the conducted research, districts are supported by regional service centers. These centers provide technical and administrative assistance to district in complying with both federal and state accountability measures in curriculum, instruction, and finance. The current delivery system of regional support is facilitated by a region service consultant at the center or on-site at a campus within its region. The curriculum and instruction sessions are categorized in particular strands and offered in training or workshop modalities. Implementing lesson study at a regional level would transition the present work of consultants from information provider to that of a facilitator for campuses or districts under their auspices. This role would help with at-large implementation and support of lesson study and provide a state-provided resource for AYP accountability and assistance with those related interventions and initiatives. The initial training could occur at service center through cohorts of teacher teams and those representatives turn the training around at their respective campuses for the regional service center to support and follow-up.

School districts also have the autonomy to structure additional required staff developments for their employees. Using district data from both state and district-level assessments, school districts could target grade levels, content areas, or even campuses in instituting lesson study as a part of the school improvement plan. Districts could organize their own cohorts by providing time and finances to support high performing campuses pairing them with low-performing schools to engage in the dialogue, planning,

observation, and debriefing that the lesson study model provides to academic teams. This professional development design would build capacity in employees and create a forum and culture of collaboration district-wide, all schools benefit from sharing best practices.

At the most influential level, school campuses can use the results of this study to examine innovative ways of using the master schedule to build time in the instructional day for teams of teachers to engage in lesson study. Without the collaborative time built into the master schedule, teachers are only able to meet before school, during lunch times, or after school. All of the aforementioned times are protected by state law as duty-free, time in the instructional day where a teacher cannot be mandated to perform functions related to their job descriptions. Thus, teachers can only voluntarily agree to meet at these off-contract times. By preserving time in the master schedule for job-embedded staff development such as lesson study there is a guarantee that the data analyses and instructional responses that need to be performed are able to be completed and become more prone to actualization. This scheduled time would also ensure that collaborative planning time had the format needed to justify using it as a planning time instead of another teaching section.

Dissemination to state policy makers would take the form of a written report outlining the current procedures and requirement for licensure and renewal juxtaposed to current state test data of Latino ELLs. This would show just cause for an evaluation of both preservice programs and renewal requirements. Regional service centers and school boards would receive the results of this doctoral study through an electronic presentation

to include the variance of Latino ELL performance on state examinations in their districts of service.

Recommendations for Further Study

The findings of this doctoral study suggest a number of future research directions. Additional research should examine the application of the lesson study collegial model in elementary master schedules where self-contained classrooms are prevalent as well as in high school scheduling options where academic teaming does not exist. Another useful direction would be to examine how the lesson study model would impact ELLs' performance in elective classes such as the arts and technology. A third decision would be to conduct a longitudinal quantitative study that would allow for examination of how ELL students' mastery of grade-level standards continues and yields impact as these students transition through primary grades or through secondary 6-12 under instruction that is designed within the lesson study framework.

Researcher's Reflections

Reflecting upon the research process, possible personal biases or preconceived ideas and values had to be governed to ensure untainted data. As a career bilingual/ESL teacher, matters related to the instruction and assessment of ELLs is of major interest to me. I have dedicated my time and research to areas of advocacy and professional development at state, regional, and district levels. Although a former employee on the research site, I had a 2-year span of time without any physical or electronic contact with participants in any professional capacity. This distance lessened the affect my job title or previous knowledge had on the outcomes of this study.

There had been a 6-year span of time between my master's degree action research project and this doctoral study. In comparing and describing the experiences in educational research, this study shows my growth as a researcher. This study allowed me to strengthen and extend the research base I developed in my master's program. As a novice researcher, I was able to implement research-based practices gleaned from doctoral coursework and readings. This study provided an opportunity to explore the work of previous researchers as well as fill a void in literature regarding lesson study and English as a second language instruction. The depth and spans of the literature review and data collection methods have provided a framework for future investigations I will pursue as I continue to advocate and promote the need for effective practices for LEP students.

Conclusion

Latino ELLs and the achievement gap are making headlines as critics of public education seek to expose the strengths and weaknesses of NCLB. This subgroup is mandated to demonstrate mastery of essential knowledge and skills as articulated by legislative standards and be assessed on state examinations. Secondary teachers responsible for this task, however, are not required to be specifically trained to meet the needs of these learners. This disconnect has a profound effect on teaching and learning.

Findings from this study suggest that collaborative lesson planning in a structured framework, as lesson study, provides practitioners an opportunity to hone their strengths and share their best practices in an effort to offset deficits from the lack of specialized training or education. Lesson study offers the forum and organization for teams of teachers to prescriptively plan for specific learning outcomes by drawing from the synergy that comes from discussions and observations. This process and context create

multiple exposure points for effective instructional strategies and transferability between content areas. Findings from this study suggest that academic teams are strengthened by lesson study implementation. Teachers learn more about each other's instructional practice by having access to individuals' processing for lesson planning and actual lesson execution. The students benefit from experiencing the replication of successful best practices by teachers attempting and adopting suggestions from their peers based upon their collective observational data.

With the current NCLB law under legislative review, student performance and teacher accountability will once again be reviewed under governmental, budgetary, and community influences. Regardless of any future changes to accountability and governmental sanctions to low-performance, implementation of lesson study provides the Latino ELL subgroup with access to effective content instruction and instructors with access to each other's expertise in content knowledge and instruction through job-embedded professional development.

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Appendix A: District Level Permission to Conduct Research

Arlington
INDEPENDENT SCHOOL DISTRICT
More Than a Remarkable Education

February 28, 2011

Mr. Chauncey Danté Reese
Arlington Independent School District
1203 West Pioneer Parkway
Arlington, TX 76013

Dear Mr. Reese,

Based on my review of your research proposal, I give permission for you to conduct the study entitled *The Impact of Lesson Study Collaborative Model on General Education Teachers of Middle School Latino English Language Learners* within the Arlington Independent School District, at the Guy C. Hutcheson Junior High School campus. As part of this study, I authorize you to administer a questionnaire, observe academic team meetings, administer a teaching impact template to research participants, collect and review documents related to school-implemented collaborative process model, and disseminate results to participants and stakeholders through published and electronic presentations. Individuals' participation will be voluntary and at their own discretion. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the research team without permission from the Walden University IRB.

Sincerely,

Dr. Wally Carter
Director, Accountability & Testing
Arlington Independent School District
1203 West Pioneer Parkway
Arlington, TX 76013
682.867.7423

Appendix B: Campus Level Permission to Conduct Research

Arlington
INDEPENDENT SCHOOL DISTRICT
More Than a Remarkable Education

Guy C. Hutcheson Junior High School
c/o David Tapia, Principal
2100 Browning Drive
Arlington, TX 76010

March 4, 2011

Dear Mr. Reese,

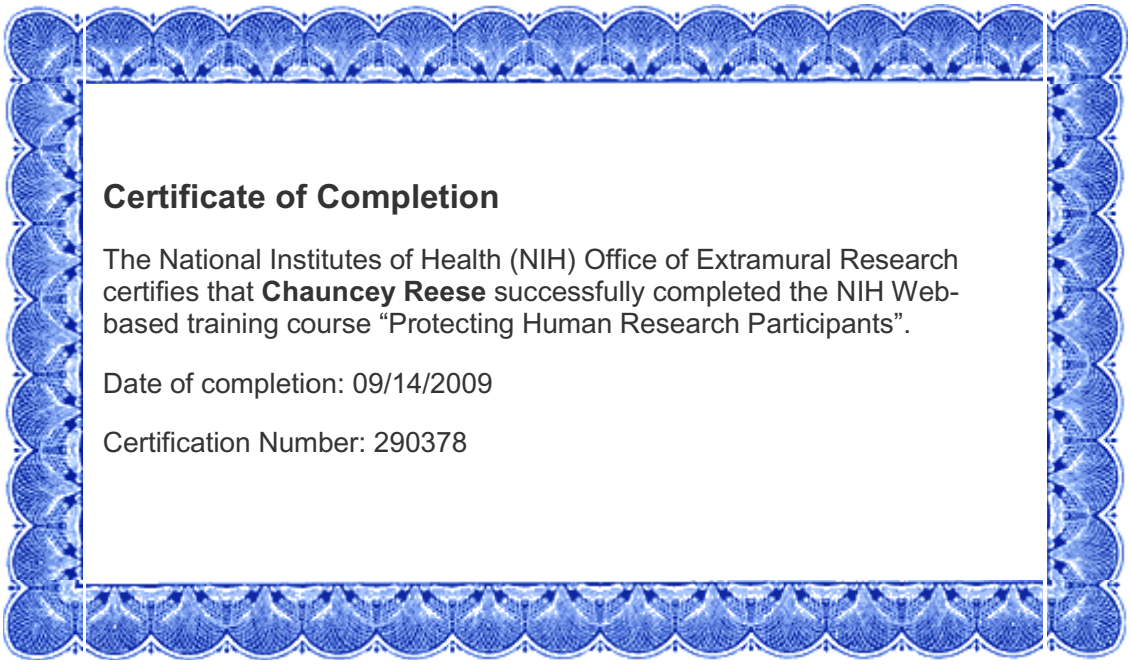
Based on my review of your research proposal, I give permission for you to conduct the study entitled The Impact of Lesson Study Collaborative Model on General Education Teachers of Middle School Latino English Language Learners within the Guy C. Hutcheson Junior High School campus. As part of this study, I authorize you to administer a questionnaire, observe academic team meetings, and administer a teaching impact template to research participants, collect and review documents related to school implemented collaborative process model, and disseminate study's results to participants and stakeholders through published and electronic presentations. Individuals' participation will be voluntary and at their own discretion.
I confirm that I am authorized to approve research in this setting.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the research team without permission from the Walden University IRB.

Sincerely,

David Tapia, Principal
2100 Browning Drive
Arlington, TX 76010
682.867.2400

Appendix C: Researcher NIH Certification



Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Chauncey Reese** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 09/14/2009

Certification Number: 290378

Appendix D: Teacher Questionnaire

Team Name: _____ Grade: _____ Date: _____

1. Which content area best describes your teaching assignment

a) Math b) Science c) Social Studies d) Language Arts

2. How many years have you been teaching?

a) 0-5 b) 6-10 c) 11-15 d) 16-20 plus

3. Do you hold an ESL teaching certification? ____Yes ____No

4. Have you been sheltered trained? ____Yes ____No

5. In the past year have you attended or participated in ESL-specific professional development?

_____Yes _____No

If yes, name the course(s) or offering(s): _____

_____

6. How would you categorize your familiarity with the instructional needs of ELLs in content classes?

a. Very familiar b. Somewhat familiar c. Not familiar

7. How many days per week does your team meet to lesson plan?

a) Zero times b) One to two times c) Three to five times d) More than five

8. On average, what percent of team planning time is dedicated to lesson planning?

a. 0% b. 25% c. 50% d. 75% or more

9. How often does your team meet to discuss data?

_____

_____

10. In the past year how many times did you observe a lesson in a teammate's classroom?

a) Zero times b) One to two times c) Three to five times d) More than five

11. In the past year how many times did you consult an ESL teacher to assist in planning a lesson?

a) Zero times b) One to two times c) Three to five times d) More than five times

12. In the past year how many times did you consult an ESL teacher to assist in disaggregating data?

a) Zero times b) One to two times c) Three to five times d) More than five times

13. What is your level of familiarity with the lesson planning collaborative model?

b. Very familiar b. Somewhat familiar c. Not familiar

Appendix E: LEP Reference Rubric

LEP Specific References in Academic Team Meetings

Team Name: _____

Date: _____

Instructional Domain:

Modeling	English Language Proficiency Standards	Nonlinguistic Representations	Higher-Order Questions	Differentiated Instruction
Oral language through use of science notebook, teacher and peer demonstrations, use of manipulatives and scientific tools/equipment	ELPS (English language proficiency standards), sheltered instruction (SIOP), group configurations, science note booking, hands-on activities, technology integration	Visual aids, advanced organizers, Thinking Maps ©, realia, manipulatives, scientific tools, virtual experiences, technology integration	Bloom's Taxonomy: knowledge, comprehension, application, analysis, evaluation, synthesis	Reference to standardized assessments: Telpas (Texas English Language Proficiency Assessment System), TAKS (Texas Assessment of Knowledge and Skills, district benchmarks

Tally mark for each LEP reference to the aforementioned

Assessment Domain:

Informal	Formal	Progress Monitoring	Formative	Summative
Questioning, Observations, Student work	Specific immediate feedback; student, parent, other, teacher conferences	Benchmarks, grades,	Student work, tests, quizzes, presentations, rubrics	End-of-year tests

Tally mark for each LEP reference to the aforementioned

Appendix F: Author's Permission for Lesson Study Training Materials

RE: Publication Permission
Sun, April 5, 2009 2:17:42 PM
From: Cerbin William J <cerbin.will@uwlax.edu>
Add to Contacts
To: Chauncey Reese <drofed@sbcglobal.net>; Kopp Bryan M <kopp.brya@uwlax.edu>

Dear Mr. Reese,

You have my permission to duplicate, use and reference the lesson study questions located at http://www.uwlax.edu/sotl/lsp/lessonstudyquestions.htm. You might also be interested in a training module we developed to help teachers learn to do lesson study. See http://www.uwlax.edu/sotl/lsp/modules/Getting%20Started%20Training%20Module.pps.

Best regards,

Bill Cerbin

Bill Cerbin, Ph.D.

Director, Lesson Study Project, www.uwlax.edu/sotl/lsp

Professor of Psychology and Assistant to the Provost

UW-La Crosse

La Crosse, WI 54601

608-785-6881

cerbin.will@uwlax.edu

From: Chauncey Reese [mailto:drofed@sbcglobal.net]
Sent: Sat 4/4/2009 3:23 PM
To: Cerbin William J; Kopp Bryan M
Subject: Publication Permission

Dear Cerbin and Kopp,

I am C. Dante' Reese, MAEd, an ESL teacher in TX and Ed.D. student at Walden University. I am currently writing my doctoral proposal. I am going to be researching the use of lesson study as a collegial model for generalist in assisting them in raising the academic performance of Latino ESL students.

I came across your website on one of many searches for information for this endeavor and would like information to cite you, reference you, and reproduce the steps you have

provided for lesson study on this page: http://www.uwlax.edu/sotl/lsp/lessonstudyquestions.htm. Of course, you will receive full credit and appropriate citation as well as your approval/disapproval will be included on my and with my IRB to the university. Again, I hope you are able to consider and approve this use. In short, I would like to use your outline as the agenda and flow of the lesson study sessions I will be using for my research.

Appendix G: Planning Template

1. Forming a Team

- Who will be on your team? For each participant, record the person's name, dept/unit, and email.
- Briefly describe the course, its place in the curriculum, and the student population.

2. Developing Learning Goals

- What topic will your lesson focus on? Why did you choose this topic?
- What specific learning goals will the lesson address? Write these in terms of what students will know and be able to do as a result of the lesson.
- What long-term qualities will the lesson support? These are abilities, skills, dispositions, inclinations, sensibilities, values, etc. that you would like students to develop in your program.

3. Planning the Research Lesson

- What are the steps of the lesson? Include descriptions of main activities, prompts and estimates of the time for each part of the lesson.
- In what ways was the lesson designed to help students achieve the learning goal?
- Predict how students will respond to the lesson.

4. Gathering Evidence of Student Learning

- What kinds of evidence will be collected (e.g., student work and performance related to the learning goal)?
- What aspects of teacher and student activity should observers focus on?

5. Analyzing Evidence of Student Learning

- Summarize the evidence, identifying major patterns and tendencies in student performance.
- Describe major findings and conclusions about what, how and why students met or did not meet learning goals.
- Based on your analysis how will you change the lesson?

6. Repeating the Process

- As you repeat the lesson study process, describe changes in the lesson and the results of your study. (e.g., step 2--how you changed your goals; step 3--how you

redesigned the lesson; step 4--what additional evidence you collected; step 5--what your new findings and conclusions are for the revised lesson.)

Appendix H: Observation Protocol

OBSERVATION PROTOCOL: (Insert Science Lesson Objective) RESEARCH LESSON

The purpose of having several instructors observe the class is to gather as much information about the process of the lesson as possible. Your primary task is to observe ***how the students respond to the lesson and make some conclusions about how well the LESSON worked***. In other words, please note behaviors of the students and the benefits/difficulties of the lesson, NOT the behaviors of the instructor!

You will be observing one group of approximately __ LEP students.

Given the goal of helping students understand the (insert lesson objectives), please look for evidence/examples that students are tying their understanding of (concept).

Please *do* take notes on your group's behavior. In addition to noting any good and poor examples of their ability to think about the (insert lesson objective), please also note such things as

- How the group developed their definition of (key term/concept). Did they integrate their individual definitions? Did they simply string their individual definitions together? Something else?
- Did they use the term "insert academic vocabulary" during their work? If so, in what ways? Based on their discussion, evaluate their understanding of "insert concept."
- Any evidence that the students seemed interested and/or engaged in the lesson
- Any derailing of the process
- Any problems in the group dynamics (dominating members, quiet members, etc.)
- Any problems understanding the directions
- Anything else you think is substantial!

Please *do not* make comments to your group. I.e. do not correct any misconceptions, clarify instructions, etc.

(Insert Science Lesson Objective)
Observer Reactions to the Lesson

Now that you have observed the lesson, please answer the following questions.

		Totally Disagree						Totally Agree
1.	All members participated in the process	1	2	3	4	5	6	7
2.	The group was able to stay on track with the lesson (i.e. did not derail, discussing irrelevant information)	1	2	3	4	5	6	7
3.	The group seemed confused about the technical processes of the lesson	1	2	3	4	5	6	7
4.	The group seemed confused about the concepts the lesson was addressing	1	2	3	4	5	6	7
5.	The group seemed to understand the *concept* of construct validity	1	2	3	4	5	6	7
6.	The group seemed to understand the concept of "construct."	1	2	3	4	5	6	7
7.	The group seemed to understand the *logic* of construct validity	1	2	3	4	5	6	7

8. Given your observations, what aspects of the lesson need to be changed? How could the lesson be improved?

9. What aspects of the lesson should remain the same? What worked well?

Appendix I: Teaching Impact Template

Teaching Impact Template

Lesson Study is substantive professional work that should count in retention, promotion and tenure. The Teaching Impact Template is intended to help you write a coherent summary of your lesson study work that you could use as evidence of "impact."

You can use the following template to develop a teaching improvement profile for your lesson study activities. Even though lesson study is inherently collaborative, the template allows you to tell an individual story of your experience. The template takes into account three important conditions:

- Brevity. The profile should be short so that others can read it quickly. In most cases you can write a well developed profile in 3-4 pages.

- Coherence. A well developed profile is a coherent story about teaching and learning. It is like a research report or case study that connects all the elements of teaching—vision and goals for student learning, instructional design, teaching practices and class interactions, learning outcomes, and analysis and revision of practices.

- Complexity. A well developed profile depicts the substance and complexity of teaching and learning including the goals for student learning, the rationale for one's instructional decisions, ways to observe changes in student thinking, how to evaluate the depth of their learning, and how to revise teaching to further support student learning.

Teaching Improvement Profile for *(your name here)*

What is a Teaching Improvement Profile?
Teaching, "like other forms of scholarship, is an extended process that unfolds over time. It embodies at least five elements: vision, design, interactions, outcomes, and analysis" (Shulman, 1998).

1. Vision: the instructor's goals that specify what students ought to learn and develop.
2. Design: the design of assignments, exercises, and experiences intended to make the goals come to life.
3. Interactions: the enactment of teaching and learning in the classroom, engaging students with the subject matter through discussion, lecturing, problem solving, collaborative work, exercises and assignments.
4. Outcomes: The acts and products of student learning consisting of changes in understanding, skills, competencies, propensities and sensibilities.
5. Analysis: the interpretation and analysis of how and how well students learn from the experience.

Lesson Study is a teaching improvement process in which a small group of instructors jointly designs, teaches, observes, evaluates and revises a single class lesson—called a Research Lesson (Lewis & Tsuchida, 1998; Stigler, & Hiebert, 1999). Because it embodies all five elements of teaching—vision, design, interactions, outcomes and analysis—lesson study is an ideal context in which to document teaching improvement. This Teaching Improvement Profile provides evidence and analysis of, and reflection on Lesson Study activities.

Lewis, C., & Tsuchida, I. (1998). A lesson is like a swiftly flowing river. *American Educator*, 22(4), 12-17; 50-52.
Stigler, J.W., & Hiebert, J. (1999). *The teaching gap: Best ideas from the world's teachers for improving education in the classroom*. NY: Free Press.
Shulman, L. (1998). "Course Anatomy: The Dissection and Analysis of Knowledge Through Teaching." In Pat Hutchings (Ed.). *The Course Portfolio: How Faculty Can Examine Their Teaching to Advance Practice and Improve Student*

This teaching improvement profile explains my lesson study experience during (*indicate time period*).

INTRODUCTION

In this section

1. *describe lesson study briefly*
2. *indicate your time commitment during the academic year and describe what you did in general terms*
3. *refer to completed work or work in progress (e.g., Research Lesson Report, article for publication)*

BACKGROUND CONTEXT

In this section

1. *describe the course and the lesson study topic*
2. *explain the rationale for selecting the topic (e.g., it's a particularly difficult topic for students; it's a new area of the curriculum)*

STUDENT LEARNING GOALS

In this section

1. *Describe the short and long term learning goals of the lesson. State these in terms of the knowledge, skills, abilities values, dispositions students should develop as a result of the lesson. Acknowledge that a single lesson cannot fully develop larger long term goals but that it can make a contribution to their development.*
2. *Point out any connections between the lesson's goals and departmental goals and objectives.*

REFLECTION

In this section, tell the reader what you have learned from lesson study and how it has affected your classroom instruction and/or pedagogical thinking. Cite specific examples to illustrate changes in your practices or thinking.

Some prompts

1. *Why did you become involved in lesson study? What are your teaching improvement goals?*
2. *Discuss specific insights about student learning that came out of the lesson study.*
3. *Discuss ways your teaching has changed or begun to change in terms of class planning, goal setting, classroom practices, assessment of student learning, use of assessment to improve teaching and learning, your understanding of how students learn the subject you teach.*

An Online Guide: *Teacher Improvement Profile Template located at* **www.uwlax.edu/sotl/lsp/tools.htm.**

Curriculum Vitae

Chauncey Danté Reese

1. Academic degrees

MAEd	University of Phoenix	2005	Curriculum & Technology
BS	Cameron University	2001	Elementary Education

Certificates: Texas Standard: Grades 1-8 (Self-contained, English, Math, Science, Social Studies, and English as a Second Language Supplemental) Sheltered Instruction Observation Protocol (SIOP) Level I and II, ILD/PDAS

2. Professional experience

2011- Present	Dean of Instruction, Sam Houston High School (Arlington ISD, Arlington, TX)
2009- 2011	Bilingual/ESL Instructional Specialist, Arlington ISD, Arlington, TX
2007-Present	English as a Second Language (ESL) Department Chairperson Guy C. Hutcheson Junior High (Arlington ISD, Arlington, TX)
2005-Present	7th and 8th grade English as a Second Language Teacher Guy C. Hutcheson Junior High (Arlington ISD, Arlington, TX)
2004-2005	Campus Lead Teacher Wilmer Elementary School (Wilmer-Hutchins ISD, Wilmer, TX)
2002-2005	4th grade (self-contained) Wilmer Elementary School (Wilmer-Hutchins ISD, Wilmer, TX)

3. Professional activities and service

Arlington Independent School District

2006-2007	AWARE Junior High Teacher of the Year
2008	Bilingual/ESL Department ESL Certification Trainer
2010	Guest Speaker at District Convocation

Sam Houston High School (campus)

Dean of Instruction
Progress Monitoring Coordinator
TAKS Pep Rally Coordinator
Math/Science Staff Development Planner

Guy C. Hutcheson Junior High School (campus)

English as a Second Language Department Chairperson (2007-2009)
Mentor Teacher (2006-2008)
Course Recovery Facilitator (2007-2008)
Teacher of the Year (2006/2007)
INOVA Planning Team (2007-2008)
Campus Leadership Team (2007- present)
F.O.C.U.S. Team (SIRC) (2007-2009)
AVID Site-based Team (2007-2008)
Awards Assembly Committee and Master of Ceremonies (2005-2007)
CHAP Assistance Center facilitator (2007- 2009)

Wilmer-Hutchins Independent School District

District Advisory Committee (2 years)
Chairperson (2004-2005)
District Gifted & Talented Committee (2 years)
District Elementary TAKS Math Lead Teacher
District Professional Development Cadre (2 years)
District Instructional Technology Trainer (2 years)
Campus Advisory Committee (2 years)
Campus Crisis Management Team (2 years)
Campus Gifted & Talented Committee (2 years)
Campus Science Fair Committee (2 years)

4. Current professional and academic affiliations

Cameron University Alumni Association
University of Phoenix Alumni Association
Kappa Delta Pi (Education Honor Society)
Texas Classroom Teachers Association (TCTA)
United Educators Association (UEA)

Association for Supervision and Curriculum Development (ASCD)
Texas Association of Bilingual Education (TABE)
Bilingual Education Association of the Metroplex (BEAM)
Texas Teachers of English to Speakers of Other Languages (TexTesol)

5. Presentations

Lyons, C., Mithchell, T., and Reese, C. (2011, September). Professional Learning Community. Workshop presented to the math and science faculty of Sam Houston High School, Arlington, TX.

Reese, C. and Riggle, K. (2011, June). English Language Proficiency Standards for Social Studies. Workshop presented to Region XI K-12 Social Studies teachers for Region XI Educational Service Center, Arlington, TX.

Reese, C. and Woodson, P. (2011, June). English Language Proficiency Standards for Social Studies. Workshop presented to Region XI K-12 Social Studies teachers for Region XI Educational Service Center, Ft. Worth, TX.

Bullis, D. and Reese, C. (2011, February). English Language Proficiency Standards for Science. Workshop presented to Arlington Independent School District K-12 Science teachers for Region XI Educational Service Center, Arlington, TX.

Reese, C. (2011, January). ELPS/SIOP Connection. Workshop presented to the faculty of the Newcomer Center at Newcomer Center, Arlington Independent School District, Arlington, TX.

Reese, C. (2011, January). Sheltered Instruction Observation Protocol 2-day. Training provided to content teachers of Lamar High School and Sam Houston High School at Lamar High School, Arlington Independent School District, Arlington, TX.

Reese, C. (2010, November). Sheltered Instruction Observation Protocol 2-day. Training provided to district secondary content teachers at Sam Houston High School Arlington Independent School District, Arlington, TX.

Reese, C. (2010, October). *Transforming Turmoil into Triumphs: Meeting the Needs of At-Risk Students*. Speech presented at faculty meeting of the Speer Elementary School, Arlington, TX.

Reese, C. (2010, October). *Title III Program Administration*. Speech presented at graduate class meeting of University of North Texas Dallas Campus, Dallas, TX.

Reese, C. (2010, October). Navigating the ELPS in the Classroom. Workshop presented to the faculty of Atherton Elementary School of the Arlington Independent School District, Arlington, TX.

Bullis, D. and Reese, C. (2010, September). English Language Proficiency Standards for Science. Workshop presented to Arlington Independent School District K-12 Science teachers for Region XI Educational Service Center, Arlington, TX.

Reese, C. (2010, August). *It starts with me*. Speech presented at annual convocation of the Arlington Independent School District, Grand Prairie, TX.

Reese, C. (2010, August). Navigating the ELPS in the Science Classroom. Workshop presented to the science instructional facilitators of the Arlington Independent School District, Arlington, TX.

Reese, C. and Teaff, T. (2010, July). English Language Proficiency Standards for Science. Workshop presented to Region XI teachers at Region XI Educational Service Center, Ft. Worth, TX.

Bullis, D. and Reese, C. (2010, July). English Language Proficiency Standards for Science. Workshop presented to Region XI teachers at Region XI Educational Service Center, Ft. Worth, TX.

Cabrera, G. and Reese, C. (2010, June). English Language Proficiency Standards for Science. Workshop presented to Region XI teachers at Region XI Educational Service Center, Ft. Worth, TX.

Cabrera, G. and Reese, C. (2010, June). English Language Proficiency Standards for Social Studies. Workshop presented to Region XI teachers at Grapevine-Colleyville Independent School District Professional Development Center, Grapevine, TX.

Reese, C. (2010, May). Sheltered Instruction Observation Protocol Day 2. Training provided to ninth grade math, science, and history teachers of Arlington High School, Arlington Independent School District, Arlington, TX.

Reese, C. (2010, May). Sheltered Instruction Observation Protocol Training provided to ninth grade math, science, and history teachers of Lamar High School, Arlington Independent School District, Arlington, TX.

Reese, C. (2010, April). Sheltered Instruction Observation Protocol Day 1. Training provided to ninth grade math, science, and history teachers of Arlington High School, Arlington Independent School District, Arlington, TX.

Reese, C. (2010, April). Summer School Planning and Fourth Grade Moves. Training presented to fourth grade teachers of Rankin Elementary School, Arlington Independent School District, Arlington, TX.

Reese, C. (2010, March). Woodcock-Munoz Language Survey Overview. Workshop presented to the instructional staff of Knox Elementary School, Arlington Independent School District, Arlington, TX.

Reese, C. (2010, February). English Language Proficiency Standards (ELPS) and Content: Providing Access Points for English Language Learners. Workshop presented to science, math, social studies, and language arts teachers of Barnett Junior High School, Arlington Independent School District, Arlington, TX.

Reese, C. (2010, February). English Language Proficiency Standards (ELPS) Tools for Transfer in Science and Math. Workshop presented to kindergarten through sixth grade teachers of Rankin Elementary School, Arlington Independent School District, Arlington, TX.

Reese, C. (2010, January). English Language Proficiency Standards (ELPS) Overview. Workshop presented to kindergarten through sixth grade teachers of Rankin Elementary School, Arlington Independent School District, Arlington, TX.

Reese, C. (2010, January). English Language Proficiency Standards (ELPS) Revisit for Science. Workshop presented to science teachers of Barnett Junior High School, Arlington Independent School District, Arlington, TX.

Reese, C. (2010, January). English Language Proficiency Standards (ELPS) Tools for Transfer in Science and Math. Workshop presented to third through sixth grade teachers of South Davis Elementary School, Arlington Independent School District, Arlington, TX.

Reese, C. (2010, January). English Language Proficiency Standards (ELPS) Revisit for Math. Workshop presented to math teachers of Barnett Junior High School, Arlington Independent School District, Arlington, TX.

Jones, B. and Reese, C. (2010, January). Triand and Data Delving. Workshop presented to English to speakers of other languages (ESOL) teachers at Sam Houston High School, Arlington Independent School District, Arlington, TX.

Menger, K.. and Reese, C. (2010, January). Instructional Strategies for ELLs: Real – life application in Mathematics (Grades K-2). Workshop presented to district K-2 Bilingual teachers at Morton Elementary School, Arlington Independent School District, Arlington, TX.

Reese, C. (2009, December). Instructional Strategies for ELLs: Language Experience Approach. Workshop presented to district K-2 Bilingual teachers at Berry Elementary School, Arlington Independent School District, Arlington, TX.

Reese, C. (2009, November). English Language Proficiency Standards (ELPS) Science. Presented to district science curriculum office instructional staff of Arlington Independent School District, Arlington, TX.

Reese, C. (2009, November). English Language Proficiency Standards (ELPS). Workshop presented to instructional staff of Barnett Junior High School, Arlington Independent School District, Arlington, TX.

Reese, C. (2009, October). English Language Proficiency Standards (ELPS). Workshop presented to instructional staff of Young Junior High School, Arlington Independent School District, Arlington, TX.

Reese, C. (2009, September). Beginning of Year LPAC Training. Workshop presented to new English as a Second Language (ESL) lead teachers of Arlington Independent School District, Arlington, TX.

Jones, B. & Reese, C. (2009, April). SIOP Support III. Workshop presented to teachers (Sheltered/ESL/Bilingual) of Arlington Independent School District, Arlington, TX.

Jones, B. & Reese, C. (2009, March). SIOP Support II. Workshop presented to teachers (Sheltered/ESL/Bilingual) of Arlington Independent School District, Arlington, TX.

Reese, C. (2009, February). English Language Proficiency Standards Training. Training session presented for faculty to Guy C. Hutcheson Junior High School, Arlington, TX.

Jones, B. & Reese, C. (2009, January). ESL Certification Track Session 7. Training session presented for district employees preparing for the ESL Supplemental Certification Test 2009, Arlington, TX.

Jones, B. & Reese, C. (2008, December). ESL Certification Track Session 6. Training session presented for district employees preparing for the ESL Supplemental Certification Test 2009, Arlington, TX.

Jones, B. & Reese, C. (2008, December). ESL Certification Track Session 5. Training session presented for district employees preparing for the ESL Supplemental Certification Test 2009, Arlington, TX.

Jones, B. & Reese, C. (2008, November). ESL Certification Track Session 4. Training session presented for district employees preparing for the ESL Supplemental Certification Test 2009, Arlington, TX.

Jones, B. & Reese, C. (2008, November). ESL Certification Track Session 3. Training session presented for district employees preparing for the ESL Supplemental Certification Test 2009, Arlington, TX.

Reese, C. (2008, October). What LEP looks like? Training session presented to the science department teachers of Guy C. Hutcheson Junior High School, Arlington, TX.

Reese, C. (2008, August). Combat to craft: Keeping the child in the curriculum. Workshop presented to the Arlington Independent School District teachers of secondary English, Arlington, TX.

Raney, K. & Reese, C. (2007, November). Building academic vocabulary. Workshop presented for Guy C. Hutcheson Junior High School staff in-service, Arlington, TX.

Reese, C. (2007, May). Internet safety. Workshop presented to the congregation f Bethlehem Baptist Church, Mansfield, TX.

Reese, C. (2007, April). Devil in the internet. Workshop presented to the congregation of Bethlehem Baptist Church, Mansfield, TX.

Reese, C. (2005, April). Would you like a S.I.P. of TEKS: Standards in practice. Workshop presented to the teachers of A. L Morney, Hutchins #1, and Wilmer Elementary schools, Wilmer, TX.

Chavez, E. & Reese, C. (2005, April). Academic achievement gap. Workshop presented to teachers of Wilmer Elementary School, Wilmer, TX.

Reese, C. (2005, February). Literature circles: Reading that revolves around me. Workshop presented to the Interim Superintendent and teachers of Wilmer Elementary School, Wilmer, TX.

Reese, C. (2005, January). Differentiated instruction: Different routes to the same location. Workshop presented to teachers of Wilmer Elementary School, Wilmer, TX.

Reese, C. (2004, December). Literature circles: Voice and choice in reading to succeed. Workshop presented to teachers of Wilmer-Hutchins Independent School District, Dallas, TX.

Reese, C. (2004, November). Mentoring teachers to mastery: 3Rs revisited. Workshop presented to teachers of Wilmer-Hutchins Independent School District, Dallas, TX.

Reese, C. (2004, October). The mind that's mine: From theory to practice. Workshop presented to teachers of the A. L Morney, Hutchins #1, and Wilmer Elementary schools of Wilmer-Hutchins Independent School District, Wilmer, TX.

Reese, C. (2004, August). Reading to succeed: Literature circles. Workshop presented to newly hired teachers at New Teacher Orientation of Wilmer-Hutchins Independent School District, Dallas, TX.

Reese, C. (2004, July). Cognitive coaching: Facilitation campus holonomy. Workshop presented to central and campus administrators during the 2004 Administrative Summit of Wilmer-Hutchins Independent School District, Dallas, TX.

Reese, C. (2004, July). The mind that's mine: From theory to practice. Workshop presented to central and campus administrators during the 2004 Administrative Summit of Wilmer-Hutchins Independent School District, Dallas, TX.

Reese, C. (2004, March). Where do I go from here?: Effective use of PowerPoint in educational job assignments. Technology training presented to professional support staff of Wilmer-Hutchins Independent School District, Dallas, TX.

Reese, C. (2004, March). Em "powering" you: Effective us of PowerPoint in your present job assignment (Part II). Technology training presented to professional employees of the Wilmer-Hutchins Independent School District, Dallas, TX.

Reese, C. (2004, March). Em "powering" you: Effective us of PowerPoint in your present job assignment (Part I). Technology training presented to professional employees of the Wilmer-Hutchins Independent School District, Dallas, TX.

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Reese, C. (2003, August). What is all the F. O. S. S. about?: An informational and interactive look at enhancing your science instruction. Workshop presented for Wilmer Elementary School staff in-service, Wilmer, TX.

Reese, C. (2003, May). Wilmer-Hutchins independent school district's paraprofessionals soaring into technology: an introduction into the use of PowerPoint (Part II). Technology training presented to the paraprofessionals of the Wilmer-Hutchins Independent School District, Dallas, TX.

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